

MEETING ABSTRACT

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# The s allele of 5-HTTLPR: a possible common link in the background of endophenotypes related to suicidal behaviours?

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## Background

Suicide is complex phenomenon with multiple causes and underlying processes which is an equally great challenge for contemporary science and our society in general. Several models have been proposed to explain suicide and several studies aimed at delineating the factors and processes playing a role in its background. The most well-known and widely accepted risk factors of suicidal behaviour deal mainly with psychological and socioeconomic factors, however, we know less about the biological, neurochemical and genetic correlates and contributors of suicidality. Suicidality has been associated with impulsive aggression, and the majority of suicides are committed by depressive patients. Recently an increasing number of studies point to an association between certain types of suicidal behaviour. The suggestion that conflicting results may be due to inhomogenous suicidal samples indicates that different phenotypes of suicides may have profoundly different underlying factors even on the biochemical and genetic level. Research shows that the s allele of the 5-HTTLPR is associated with violent completed suicides. This polymorphism has also been related to affective disorders, however, evidence supports that the association between suicide and the s allele is independent of the association between the 5-HTTLPR and depression. The s allele is also associated with several traits, such as impulsive aggression, hopelessness and affective temperaments, which may serve as important endophenotypes in delineating the genetic background of different types of suicidal behaviour. Expanding our knowledge and

understanding of the role of the serotonergic system in suicidal behaviour may lead to better recognition of suicide and of the prodromal symptoms of suicidal behaviour and may also play an important role in developing drugs with a potential to reduce suicidality.

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