

Title: The Perfect Gene: Comparison of the Recessive Short & Recessive Long Allele of the Serotonin Transporter Gene 5-HTTLPR

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With the rising of modern genetic mutations we have come to consider making the “perfect” human being. Now that we have more opportunity to investigate DNA we are able to pinpoint what genes are ideal in order to construct the optimal person. In the past 20 years, researchers have compared the recessive short allele (ss) and recessive long allele (ll) of the serotonin transporter gene (5-HTTLPR). This gene is crucial as it determines the effects of serotonin in the human body. Low levels of serotonin are often attributed to panic attacks, anxiety, depression, and many mental disorders. Researchers have named the short allele as the “risky” allele, as it has been linked to reduced transcriptional activity of the serotonin transporter and increased amygdala responses in comparison to the long allele. Scientists have focused the majority of their research in the short allele. Consequently, the long allele was assumed to be a “better” genetic code. With recent studies, researchers have observed that the long allele isn’t perfect, however, as it has a tendency to reflect reduced stress activity as well as reduced emotional responses. This seems like the ideal trait, but beneath the surface lingers a potential risk factor for the development of psychopathic traits. Psychopathy is a disorder characterized by reduced emotionality and behavioral traits that lead to frequent engagement in antisocial behavior. This new discovery has sparked the dispute as to whether which version of the gene is the preferred one. This presentation will examine this dispute.

References

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