

# Markers of Major Depression Disorder

-- Genetic vulnerability exacerbated by stress leads to negativity bias, automatic sensitivity to negative emotion, loss of thinking functions and feelings of depression.

	Disposition	Emotion	Feeling	Thinking	Self Regulation
MDD / Depression	<p>5-HTTLPR Short Allele with ↑ Stress <sup>1,5</sup></p> <p>COMT Met with ↑ stress <sup>1,6</sup></p> <p>BDNF Met66 Polymorphism with ↑ Stress <sup>1,2,3</sup></p> <p>↓ Hippocampal Grey Matter <sup>2</sup></p>	<p>↑ Negative Emotion Bias <sup>1</sup></p> <p>↑ Amygdala Activation to Negative Emotions<sup>1</sup></p>	<p>↑ Prolonged Depressed Mood <sup>1</sup></p> <p>↑ EEG Alpha Asymmetry <sup>3</sup></p> <p>Altered Ventral-dorsal-prefrontal Activity</p>	<p>Slow Response Speed <sup>1</sup></p> <p>↓ Executive Function <sup>1</sup></p> <p>↓ Attention Concentration <sup>1</sup></p> <p>↓ Impulsivity <sup>1</sup></p> <p>↓ Memory <sup>1</sup></p> <p>↓ ERP P300 <sup>7</sup></p>	<p>↑ Negativity Bias <sup>5,6</sup></p> <p>Altered HPA Activity <sup>1</sup></p> <p>↓ Heart Rate Variability <sup>1</sup></p>

ERP P300 for Attention tasks

HPA: hypothalamic- pituatuitary-adrenal axis

## MDD References

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