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Biochemical Imbalance Causing Psychological Disorders and Biomolecules for the Treatment RICHARD KYUNG, GAYOUNG KO, RISE Research Group — Chemical imbalance is the result of causal factors such as chronic infection, physical and emotional trauma, nutritional deficiency, and toxicity. These factors all contribute to a chemical imbalance in the human brain. Such imbalance triggers psychiatric disorders such as depressive episodes in patients experiencing depression. Hormones and chemicals keep the body working normally. Cells in our brain produce neurotransmitters that contribute to mood modulation. In individuals experiencing severe depression, the complex systems involved in mood regulation may be dysfunctional. For example, receptors may be oversensitive or insensitive to a specific neurotransmitter, causing their response to its release to be excessive or inadequate. In examining the relationship between biochemical molecules and psychiatric disorders, qualitative and quantitative analyses were performed to assess the functioning of neurotransmitters released from presynaptic terminals through the synaptic cleft.

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