

Abstract

Schizophrenia is a heterogeneous mental disease that afflicts about 1% of population with no treatment available that would ameliorate all of its symptoms. The key structures affected in schizophrenia are the hippocampus and the prefrontal cortex. This work focuses on the interplay between these structures and on the monosynaptic hippocampal-prefrontal connection, the abnormal neural activity of which is the main cause of cognitive, positive and negative symptoms of schizophrenia. This work summarizes existing findings about both normal and impaired function of the hippocampal-prefrontal connection and provides an overview of animal models frequently used in research.

Key words: hippocampus, prefrontal cortex, schizophrenia, interneuron, animal model