

Modified swim test as a mouse depression paradigm of enhanced cognitive processing

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MODIFIED SWIM TEST AS A MOUSE DEPRESSION PARADIGM OF ENHANCED COGNITIVE PROCESSING: THE ROLE OF GSK3 β

Nataliia Markova

Postulations

1. Enhanced learning of adverse context is an important pathophysiological factor of a depressive syndrome (*this thesis*);
2. Its mechanisms can be mediated by over-expression of GSK3 β in the prefrontal cortex in susceptible individuals (*this thesis*);
3. The hippocampus and prefrontal cortex play differential roles in GSK3 β -mediated contextual conditioning associated with depressive state (*this thesis*);
4. The modified swim test based on delayed testing can serve as a paradigm for abnormal acquisition of adverse memories during depression (*this thesis*);
5. Treatment with imipramine or thiamine (vitamin B1) prevents enhanced contextual conditioning of adversities and over-expression of brain GSK3 β (*this thesis*);
6. Thyroid hormone T2 and thiamine (vitamin B1) can be exploited as new supplementary antidepressant therapies (*this thesis*);
7. “You must acquire the best knowledge first, and without delay; it is the height of madness to learn what you will later have to unlearn” (*Erasmus; 1497*);
8. “Learn the ABC of science before you try to ascend to its summit” (*Ivan Pavlov; 1936*);

9. "Who reminds of past insults, is to lose an eye" / "*Let sleeping dogs lie*" (*Russian proverb*);
10. "To study, to study and once again, to study!" (*Vladimir Lenin; 1924*).