

Challenging the serotonin system : a mechanistic approach to the method of acute tryptophan depletion in rodents

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Statements

Stellingen behorend bij het proefschrift

Challenging the serotonin system

A mechanistic approach to the method of acute tryptophan depletion in rodents

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Maastricht, 17 september 2009

1. Tryptophan is the dietary precursor of serotonin, but not the precursor of instant depressive-like behaviour when depleted. (*this thesis*)
2. A mouse is not a rat (*this thesis*) and, in general, human subjects have different sensitivity to the acute manipulation of dietary tryptophan than rodents.
3. Acute tryptophan depletion may exert its neurochemical and behavioural effects through mechanisms that go beyond a straightforward decrease in serotonin metabolism (*this thesis*). This may also apply to the pathogenesis of major depressive disorder.
4. Acute tryptophan depletion is most valid when predictions of what happens to the brain are not based solely on the changes observed in the blood. (*this thesis*)
5. Applying the acute tryptophan depletion method in rodents is such a stressful procedure that it confounds the actual biochemical effects. (*this thesis*)
6. Depleting the essential amino acid tryptophan in the blood may decrease nitric oxide synthase activity, thereby reducing cerebral blood flow in brain areas implicated in cognitive processing. (*this thesis*)
7. Being predisposed to the fear of failing makes you forget how to face your success.
8. Luck is when your p-value is less than the risk you are willing to take in being wrong. Talent seems to depend on the number of times you are lucky.
9. If at first you don't succeed, try, try again. (*Thomas H. Palmer*)
10. If you can find a path with no obstacles, it probably doesn't lead anywhere. (*Frank A. Clark*)
11. To be a perfect mensch is a burden, to be a normal mensch is boring and to be yourself, a perfectly normal mensch, is difficult but totally satisfying. (*Gavi Mensch, 2008*)