

A translational approach to GHB addiction

Recreational GHB use and GHB addiction prevalence has strongly increased over the last decade in The Netherlands and several other Western countries. Especially adolescents use GHB in an excessive manner, leading to dangerous situations such as coma and respiratory depression. GHB-induced comas are highly common with patients with a GHB addiction. After eventual cessation of their GHB use, over two-thirds of these patients relapse. Besides, sudden cessation of GHB use is very dangerous and can come with severe withdrawal symptoms such as psychoses and delirium. Thus far, little is known on the long-term effects, mechanisms and treatment of GHB addiction and GHB-induced coma. In my project, I will employ a translational approach to reveal the cognitive and neurotoxic effects of GHB addiction and GHB-induced coma in both an animal model and in patients with GHB addiction. Additionally, I will test several pharmaceutical interventions to reduce cognitive deterioration, withdrawal symptoms and relapse rates in an animal model.

For this project I am looking for a Masters student. The student will be mainly performing behavioral experiments in rats and will perform several in vitro techniques such as brain slicing, immunohistochemistry and western blots.

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