

The gut-brain axis and alcohol-mediated behaviours: the amylin story

Alcohol use disorder (AUD) is a complex brain disorder with high rates of mortality. Despite its severe negative impact on both the individual and the society, highly efficient treatments are not currently available. In search of new pharmacotherapies, researchers have identified that hormones produced in the guts act on the brain to control alcohol-related behaviours. This thesis establishes for the first time that one of those hormones, amylin, regulates behaviours that alcohol affects when it reaches the brain. The studies presented here reveal novel findings that amylin reduces alcohol consumption and prevents relapse alcohol drinking among others and that these effects are also associated with molecular changes in the brain. Importantly, these studies suggest the theory that amylin makes alcohol less rewarding. The ultimate goal of this thesis is to become a stepping-stone to the identification of new targets for the treatment of AUD and potentially of other addictive disorders.



Lydia completed her Biology Bachelor's studies in Greece. Driven by innate curiosity, she left to obtain a Pharmacology Master's in The Netherlands. There she fell in love with neuroscience, which took her to Sweden to pursue a PhD in Addiction Biology.

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