ABSTRACT

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Title: THE PREVALENCE OF UNCONDITIONED ANXIETY AND
                    ETHANOL CONSUMPTION IN THE OFFSPRING SIRES EXPOSED
                    TO BINGE-LEVELS OF ETHANOL

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Numerous publications have described the consequences of consumption of alcohol during pregnancy, while little research has been conducted investigating the implications of alcohol consumption prior to pregnancy by both the mother and father. While alcohol preference and abuse are influenced by genetic factors, it is proposed that alcoholism may also cause transgenerational inheritance of cognitive defects. With the prevalence of alcoholism today, as well as anxiety, this research project proposes to determine if a possible correlation exists between paternal binge ethanol exposure and the prevalence and severity of unconditioned anxiety in offspring in a rodent model. Sires were exposed to binge-levels of ethanol and were bred with unexposed dams. The offspring were then tested for ethanol preference and anxiety prevalence. Ethanol consumption was measured by percent body weight gain from exposure through cannulation. Anxiety was measured by a light-dark box test, measuring time spent in the light chamber and half body protrusions into the light chamber. Significant differences were found with an increase in alcohol preference in those born to sires exposed to alcohol compared to water and control animals. Significant decreases in anxiety in those born to sires exposed to alcohol compared to water or controls were also found. The results were analyzed using an ANOVA, with significant findings examined through a post hoc analysis. Overall, these are novel findings contributing to the growing field of determining the effects of paternal binge ethanol exposure prior to copulation.