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**“DETERMINANTS OF ALCOHOLISM: BRIDGING THE GAP BETWEEN  
EPIDEMIOLOGICAL AND BASIC RESEARCH”**

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## **EFFECT OF IMPULSIVITY, RISK TAKING AND COGNITIVE BIAS ON ALCOHOL USE IN CHILDREN AND ADOLESCENTS**

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The present study examined the association of trait and behavioral impulsivity, risk taking and cognitive bias on frequency and quantity of alcohol in children and adolescents. Participants were children and adolescents ( $n = 90$ ;  $M$  age = 14.34  $SE = .17$ ; 50% female) that took part in a larger longitudinal study ( $N = 1762$ ;  $M$  age = 12.59  $SE = .03$ ; 45.7% male) where they completed the UPPS-P, a 5-factor measure of trait-like impulsivity. Participants with the highest (i.e., superior quartile) and the lowest (i.e., inferior quartile) scores on the UPPS-P were invited to participate in the present study. Participants completed a paper-and-pencil survey measuring sociodemographic variables and alcohol drinking (drinking frequency and quantity) and three computerized tasks to assess risk taking (Balloon Analogue Risk Task [BART]), response inhibition (Go Stop Task) and cognitive bias towards alcohol signals (Emotional Stroop). Participants completed the tasks in individual sessions. Results of bivariate correlations showed that age, lack of premeditation (one of the five dimensions of trait-like impulsivity), and risk taking were significantly positively associated with frequency of alcohol use; while only age was significantly associated with quantity of alcohol use. We conducted a hierarchical regression analysis including age and trait-like impulsivity in the first step and risk-taking, response inhibition and cognitive bias included in the second step. For frequency of alcohol drinking as the dependent variable, all these variables explained 47% of the variance. Age, trait-like impulsivity and risk-taking had a significant positive effect on frequency. For drinking quantity as the dependent variable, only age and trait-like impulsivity was significantly positively associated with greater alcohol use ( $R^2 = .29$ ). Altogether, these findings failed to find a robust effect of multiple measures of impulsivity on underage drinking, particularly drinking quantity. This is probably related to the low prevalence of drinking behaviors at this early age. Notably, trait-like impulsivity and risk taking had a significant effect on drinking frequency even after controlling for chronological age; suggesting these variables are relevant to discriminate and identify children and adolescents at greater risk for engaging in alcohol use.

## **REDUCED AVAILABILITY OF THE ALDH COFACTOR NAD<sup>+</sup> BY ROTENONE IN A CAENORHABDITIS ELEGANS MODEL: FUNCTIONAL RELEVANCE FOR THE METABOLISM OF TOXIC ALDEHYDES**

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The ALDH superfamily is associated with physiological and pathological processes. These enzymes play a key role in toxic aldehydes disposition, not only of those generated by oxidative stress (such