

Thirty-two years of selection of rats by ethanol preference: UChA and UChB strains

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An overview of the development of two strains of rats with low and high consumption of ethanol is reported. Voluntary consumption of water and various concentrations of ethanol solution were studied in these strains as a function of diet, supplementation with vitamin B complex components, housing conditions and coefficient of heredity. Both distribution factor of the consumption of ethanol in hybrids and the course of voluntary intake of ethanol have been described. In addition, a comparison was made between these rat strains developed for low and high preference to ethanol drinking in reference to their voluntary intake of ethanol, water and food. The metabolic concomitant to these two strains has been studied in relationship to ethanol metabolism and to other substrates, i.e., acetate, pyruvate, glucose, citrate and fructose. Behavioral studies were also performed. This included the measurements of duration of ethanol narcosis and evaluation of tolerance to ethanol drinking.