

NEW INSIGHTS INTO GR ANTAGONISM'S ROLE IN ALCOHOLISM

Publication Overview

Understanding the grip of alcoholism on some individuals requires peeling layers deep into the science of stress and body chemistry. This study dives into this by examining how blocking a specific receptor in the brain, known as the glucocorticoid receptor (GR), can affect alcohol consumption in rats predisposed to high intake. By comparing rats with a genetic tendency towards alcohol preference to those without, the research highlights how stress and our body's stress response system could influence drinking behaviors. These findings not only advance our grasp of alcohol use disorder (AUD) but also open doors to potential new treatment avenues.

Date: 17 April 2021

Publication Title:

Effect of Glucocorticoid Receptor Antagonism on Alcohol Self-Administration in Genetically-Selected Marchigian Sardinian Alcohol-Preferring and Non-Preferring Wistar Rats.

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DOI:

https://doi.org/10.3390/ijms2208 4184

Keywords:

<u>alcohol use disorder; stress;</u> <u>alcohol preferring rats;</u> <u>glucocorticoids; mifepristone;</u> <u>alcohol self-administration</u>

Key Features & Benefits

- Provides a deeper understanding of the biopsychological underpinnings of alcohol abuse and dependency.
- Suggests that treatments targeting the stress response system, specifically GR, could be effective in reducing alcohol intake.
- Highlights the role of genetics and sex differences in AUD, indicating more personalized approaches to treatment could be warranted.

Potential Applications

- Development of new pharmacological treatments that target GR for individuals struggling with AUD.
- Tailored therapeutic approaches that consider an individual's genetic predisposition and sex, leading to more effective interventions.
- Expansion of research into other compounds and receptors that might be involved in stress-related alcohol abuse, providing a broader range of treatment options.

Fig



msP basal

🖾 Wistar basal

- msP after alcohol SA
- Wistar after alcohol SA

Females had higher blood corticosterone (CORT) levels than males, regardless of the rat strain. Alcohol consumption reduced CORT levels in females only, with no change observed in males.