

Cannabidiol as a potential substance for ethanol consumption disorders

Sheila A. Engi¹, Everton Oliveira Santos, Thamires Righi¹, José Alexandre de Souza Crippa³, Jaime Eduardo Cecilio Hallak³, Vanessa Abilio¹, Fábio Cardoso Cruz¹

• The authors declare no conflict of interest.

1. Escola Paulista de Medicina, Universidade Federal de São Paulo – UNIFESP; 2. Faculdade de Medicina, Universidade de São Paulo – USP/FMRP

BACKGROUND

Alcohol use and abuse reached considerable proportions in the last years. Studies have shown that cannabidiol (CBD) has anxiolytic, anti-psychotic, antidepressant and neuroprotective properties. There is also evidence that CBD can reduce drug-seeking behavior. Despite the relevance, little is known about CBD treatment effects on ethanol (EtoH) addiction.

HYPOTHESIS

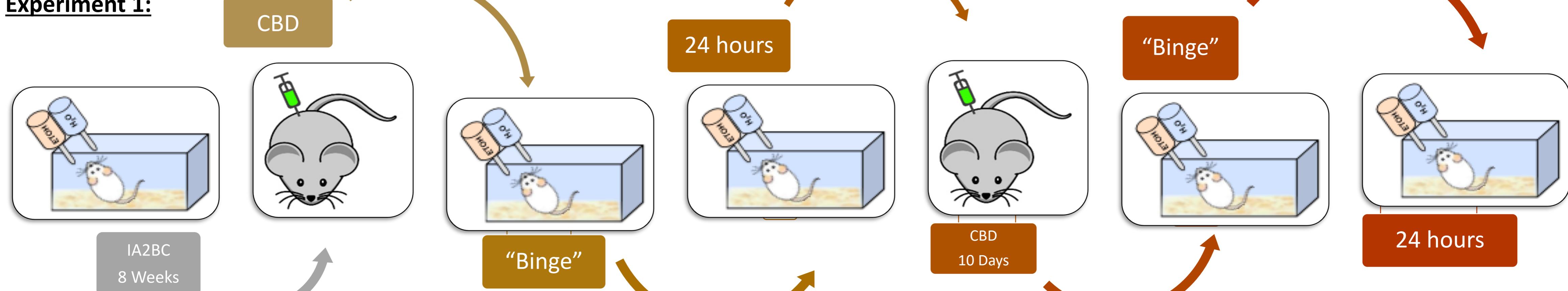
Whether CBD treatment could decrease EtoH seeking, consumption and reinstatement using the animal model of Intermittent Access to Two Bottle Choice (IA2BC) and operant Self-Administration and ethanol vapor chamber.

OBJECTIVES

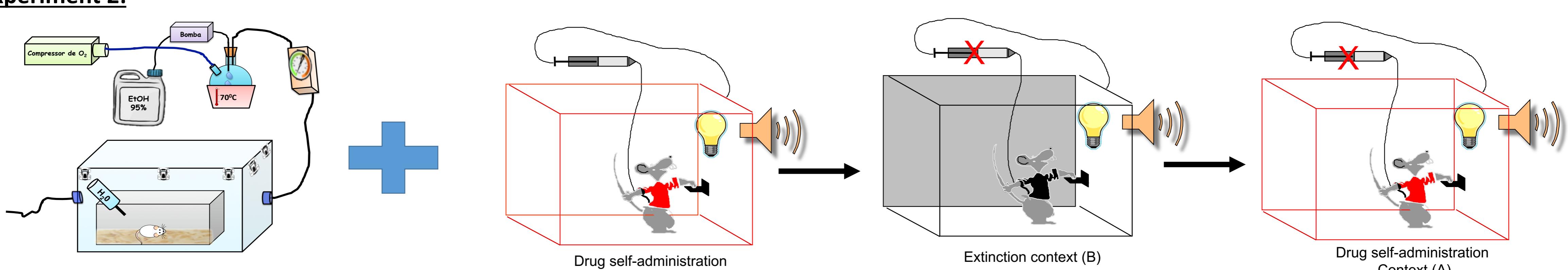
This study aimed to investigate the effects of CBD treatment upon EtoH consumption in mice and rats using different animal models.

MATERIALS AND METHODS

Experiment 1:



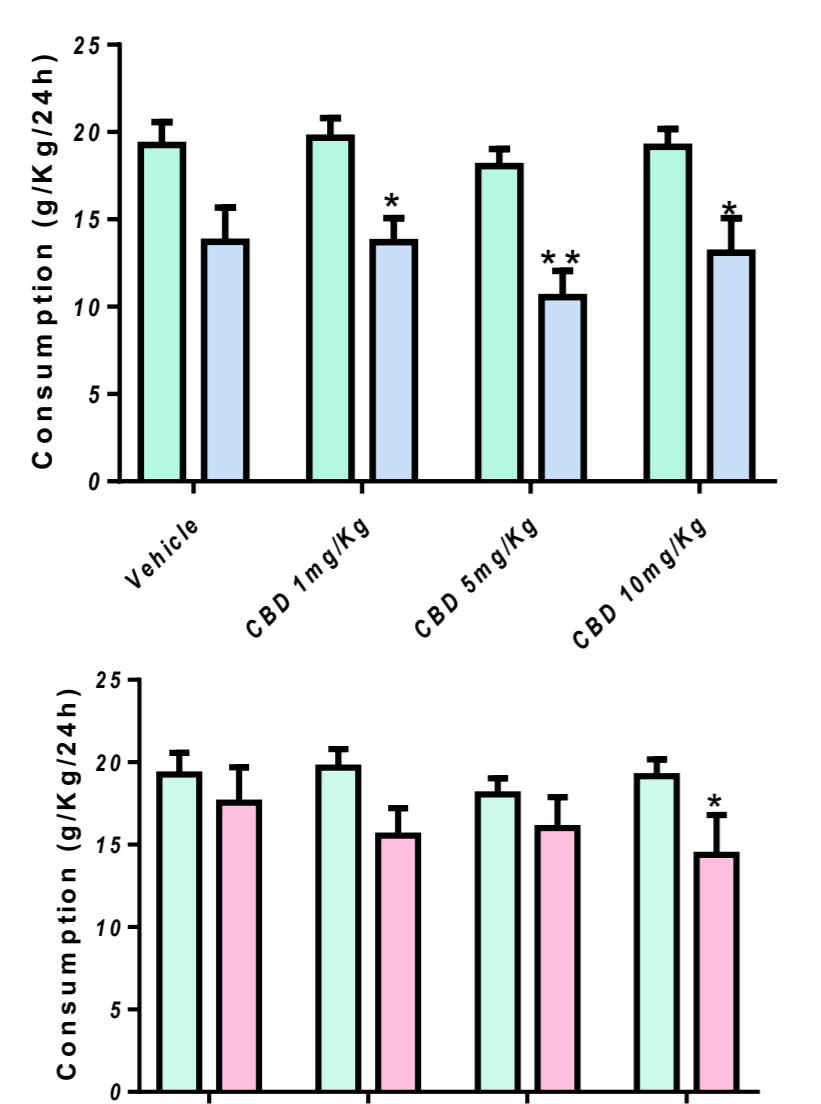
Experiment 2:



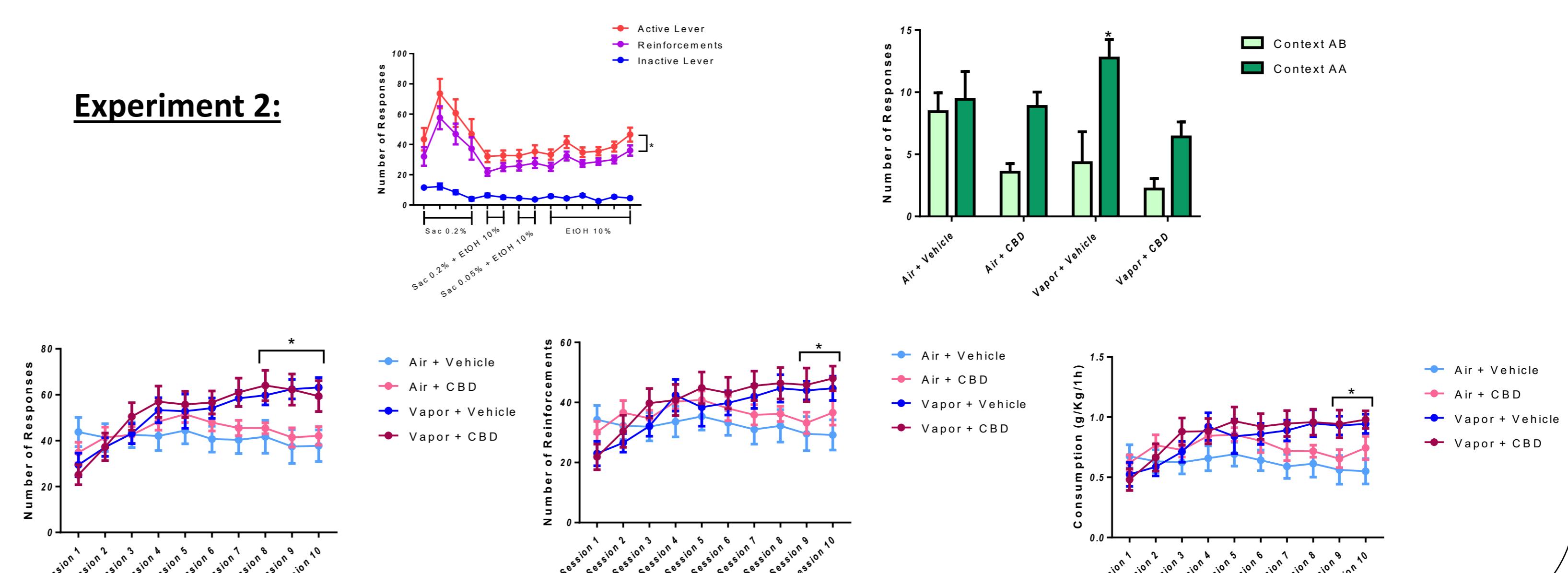
The protocol was approved by The Ethics Committee from UNIFESP (CEUA nº 5975100517).

RESULTS

Experiment 1:



Experiment 2:



CONCLUSIONS

Our data suggest:

- 1) Acute CBD may cause decrease in EtoH consumption.
- 2) Chronic CBD at the dose of 10 mg/Kg may cause decrease in EtoH intake.
- 3) CBD does not change EtoH lever presser, reinforcements and consumption.
- 4) CBD attenuates EtoH reinstatement.

FINANCIAL AND INSTITUTIONAL SUPPORT



FAPESP Process nº 2018/15505-4
FAPESP Process nº 2017/21470-6
Fapesp Process nº 2016/18701-3
Fapesp Process nº 2013/24986-2

