ROLE OF 5-HT2C RECEPTOR WITHIN THE VENTRAL HIPPOCAMPUS ON ANXIETY INDUCED BY THE ELEVATED PLUS-MAZE. Gomes, V.C. (1); Scarpelli, G. (3); Alves. S.H. (3); Landeira-Fernandez, J. (1,2); Cruz, A.P.M.(3). (1)Pontifícia Universidade Católica do Rio de Janeiro, RJ, Brasil. (2) Universidade Estácio de Sá, RJ, Brasil (3) Universidade de Brasília, DF, Brasil.

This study aim to investigate the behavioral effects in the rat elevated plus-maze (EPM) of infusing the selective serotonin2C (5-hydroxytryptamine, 5-HT2C) receptor-acting compounds into the ventral hippocampus (VH). In this experiment, naïve male Wistar rats were exposed to the EPM 10 min following VH infusions of either vehicle or the selective 5-HT2C-receptor agonist RO-60-0175 (0.3, 1.0, 3.0 and 10.0 µg). In addition to conventional parameters of open arm exploration (i.e. percentages of open arm entries and of time spent into these arms), risk assessment-related behaviors were recorded as anxiety-like measure in EPM scoring. RO-60-0175 selectively decreased open arm exploration at the dose of 1.0 µg, while inducing robust locomotor-suppressant effects at the highest doses. These results further corroborate our previous findings showing that VH 5-HT2C receptor activation is associated with anxiogenic-like and locomotor-suppressant effects.