



## Over-expression of cortico- limbic 5-HT1A receptors leads to enhanced stress-induced anxiety and LPS-induced depression /

Architravo, Annamaria.

2018.

Proyectos y Trabajos Académicos.

Recurso en Línea.

Máster Universitario

en Biología Molecular y Biomedicina.

Monografía

**Rationale.** Dysfunction of 5-HT1A receptors, especially those located in the cortico-limbic circuitry, has been linked to depression and stress-related disorders. We hypothesised that overexpression of 5-HT1A heteroreceptors (TG mice) in the frontal cortex and hippocampus could influence innate anxiety- and depression-like responses. In addition, we assessed their phenotype under environmental challenges known to induce pathological anxiety- and depression-like behaviours. **Objectives.** We have compared the behavioural responses of male and female TG mice in ethological and conflict-based anxiety paradigms, and also evaluated the impact of the pre-exposition to a stressful event on these behavioural responses. In addition, we evaluated the manifestations in mice subjected to an animal model of inflammation-induced depression (lipopolysaccharide administration) using anxiety and depression tests. **Results.** TG mice, especially female subjects, exhibited a basal (non stressed condition) behaviour characterized by hypocolomotion and anxiety. When they were pre-exposed to a stressful event, an enhanced anxiogenic and depressive-like responses were clearly observed. Interestingly, TG mice subjected to the LPS model exhibited higher hypolocomotion, freezing (panic-like) response and increased immobility. **Conclusions.** The over-expression of cortical-hippocampal 5-HT1A receptors increases the susceptibility of mice, especially in female subjects, to develop maladaptive and enhanced anxiety-like responses when they have experienced a previous stressful event. In addition, TG mice are particularly more vulnerable to suffer the manifestations associated to the LPS-induced model of depression.

<https://rebiunoda.pro.baratznet.cloud:38443/OpacDiscovery/public/catalog/detail/b2FpOmNlbgVicmF0aW9uOmVzLmJhemF0ei5yZW4vMjEzNzM5NzY>

**Título:** Over-expression of cortico-limbic 5-HT1A receptors leads to enhanced stress-induced anxiety and LPS-induced depression Annamaria Architravo ; director, Álvaro Díaz ; co-directora, Elena Castro Fernández.

**Editorial:** 2018.

**Descripción física:** 26 p.

**Nota general:** Trabajo fin de Máster. Facultad de Medicina. Universidad de Cantabria. Santander.

**Materia:** Depresión mental Proyectos y Disertaciones Académicas. Ansiedad Proyectos y Disertaciones Académicas. Receptores Neurales- Proyectos y Disertaciones Académicas.

**Autores:** Díaz Martínez, Álvaro, director de trabajo académico. Castro Fernández, María Elena, director de trabajo académico.

**Entidades:** Universidad de Cantabria. Facultad de Medicina

---

## **Baratz Innovación Documental**

- Gran Vía, 59 28013 Madrid
- (+34) 91 456 03 60
- [informa@baratz.es](mailto:informa@baratz.es)