

**Livro de Resumos**



I Simpósio Gaúcho de  
**Farmacologia**



07 a 09 de setembro de 2016

Porto Alegre, RS, Brasil



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**Comissão Organizadora:**

Rosane Gomez, Patrícia Pereira, Helena M.T. Barros e Iraci LS Torres

**Comissão Científica:**

Claudia Rhoden, Rosane Gomez, Patrícia Pereira, Helena M.T. Barros e Iraci LS Torres

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seriam supostamente alteradas nas sinapses GABAérgicas em relação às glutamatérgicas nos diferentes processos mnemônicos. No entanto, os dados sobre a indução da LTP são inconsistentes com esta hipótese, provavelmente devido ao desenho experimental. A diferença entre os efeitos da inibição da recaptação de anandamida e a ativação direta do receptor CB1, pode ser devido à diversidade de alvos moleculares da anandamida, como o receptor TRPV1. **Apoio Financeiro:** CAPES e CNPq.

### **EARLY POSTNATAL MATERNAL DEPRIVATION INDUCES THERMAL HYPERALGESIA IN INFANT RATS AND REMAINS IN ADULT LIFE**

Diego ES Rios<sup>1,5</sup>, Carla de Oliveira<sup>1,2,5</sup>, Vanessa L Scarabelot<sup>1,3,5</sup>, Lauren NS Adachi<sup>1,2,5</sup>,  
Rafael Vercelino<sup>1,5</sup>, Isabel C Macedo<sup>1,3,5</sup>, Gabriela G Regner<sup>1,4,5</sup>, Natalia P Silveira<sup>1,5</sup>,  
Lisiane S Silva<sup>1,5</sup>, Iraci LS Torres<sup>1,2,3,4,5</sup>

<sup>1</sup>Laboratório de Farmacologia da Dor e Neuromodulação: Investigações Pré-Clínicas-  
Departamento de Farmacologia – UFRGS.

<sup>2</sup> Programa de Pós-Graduação em Medicina: Ciências Médicas – UFRGS.

<sup>3</sup> Programa de Pós-Graduação em Ciências Biológicas: Fisiologia – ICBS/UFRGS.

<sup>4</sup> Programa de Pós-Graduação em Farmacologia e Terapêutica – ICBS/UFRGS.

<sup>5</sup>Unidade de Experimentação Animal - GPPG - Hospital de Clínicas de Porto Alegre –  
UFRGS.

**Introduction:** Postnatal maternal deprivation can causes a developmental delay, adversely affecting brain development and thereby increases the risk of occurrence of behavioral difficulties. Here, we investigated the possible behavioral effects of maternal deprivation associated with repeated morphine administration in the neonatal period. **Methods:** A total of 58 puppies were utilized. At birth, litters were standardized to contain up to 8 pups per dam, and pups remained with their mothers until 21 days of age. On postnatal day 1 (PND 1), litters were daily deprived of their mother for 3 hours during the first 10 days of life. The animals were divided in 5 groups: the total Control group (C), which did not receive any intervention; Morphine-Vehicle group (MV), which receive saline solution; Morphine group (M), which receive morphine; Deprived Morphine-Vehicle group (DMV), which were subjected to maternal deprivation and receive saline solution; and Deprived Morphine group

(DM), which were subjected to maternal deprivation and receive morphine. Newborn received subcutaneous injections of morphine or saline, 5 µg in the mid-scapular area, starting on postnatal day 8 (P8), once daily for 7 days. The nociceptive responses were assessed by the hot plate test over the short (P16) and medium (P30) term. Statistical analysis were performed by One-way (ANOVA) followed by Student Newman Keuls, and considered significant at  $P \leq 0.05$ . CEUA/HCPA (15- 0614). **Results:** Hyperalgesia was noted by significant decreases in the paw withdrawal latency in P16 for M, DMV and DM groups ( $F(4,53) = 14.53$ ,  $P < 0.05$ ). Likewise, a decrease in the paw withdrawal latency in P30 was observed for DMV and DM groups ( $F(4,53) = 5.91$ ,  $P < 0.05$ ). **Conclusion:** Our data indicated that early maternal separation has profound effects on nociception in rats. It is important to highlight that maternal separation is considered as an early life stressor and has been shown to have lasting effects on several responses, including nociception which can extend into adulthood. We can suggest that development of hyperalgesia after exposure to maternal deprivation can be related to changes in central or peripheral opioide activity. In addition, opioide receptors can be highly plastic, as reflected by their susceptibility to modifications by various pharmacological and behavioral manipulations. Thus, the prolonged stress triggered by deprivation could lead to long-lasting changes in the neural systems involved in nociceptive modulation. Furthermore, our results also indicate an increase in the nociceptive response in young rats (P16). We conclude that the altered nociceptive response induced by repeated morphine exposure can change in an age-dependent manner. **Financial Support:** FIPE/GPPG-HCPA, CNPq, CAPES, BIC, PROCAD.

## **AVALIAÇÃO DA EXPRESSÃO GÊNICA DE BDNF APÓS INFUSÃO DE ALOPREGNANOLONA NO CÓRTEX PRÉ-FRONTAL EM RATOS**

Neto, L.D.Z.<sup>1</sup>; Almeida, F.B.<sup>2</sup>; Agnes G.<sup>3</sup>; Gomez R.<sup>4</sup>; Nin, M.S.<sup>2,5</sup>; Barros, H.M.T.<sup>1</sup>

<sup>1</sup> Universidade do Vale do Rio dos Sinos, RS;

<sup>2</sup> Laboratório de Neuropsicofarmacologia, UFCSPA, RS;

<sup>3</sup> Laboratório de Biologia Molecular, UFCSPA, RS;

<sup>4</sup> Departamento de Farmacologia, UFRGS, RS;

<sup>5</sup> Disciplina de Bioestatística, Centro Universitário Metodista IPA, RS, Brasil.