

10<sup>th</sup> International Conference on  
**Neuroscience and Neurochemistry**  
&6<sup>th</sup> International Conference on **Vascular Dementia** February 27-March 01, 2017**Environmental enrichment recovers the immunohistochemical underexpression of neurotrophin-3 (NT3) together with anxiety-like behavior in rats prenatally treated with synthetic glucocorticoids****Martina Valencia, Odra Santander and Rodrigo Pascual**  
Pontifical Catholic University of Valparaiso, Chile

Several studies have indicated that abnormal prenatal changes in the circulating glucocorticoids (GCs), induced by maternal stress or exogenous GC administration, significantly alter the development of cerebellar Purkinje cells (PCs) and increase the anxiety-like behaviors during postnatal life. In the current study, we analyzed whether a single course of prenatally administered betamethasone phosphate (BET) alters the immunohistochemical expression of cerebellar neurotrophin 3 (NT3) and anxiety behaviors in adolescent rats. Furthermore, we assessed whether EE promote changes in NT3 expression along with anxiety-like behavior. The data obtained showed that antenatal BET exposure resulted in a significant immunohistochemical underexpression of NT3 and increased anxiety-like behaviors. Interestingly, these changes were recovered by post weaning EE. Of note, these and other experimental data do not mean to dismiss the beneficial effects of BET administration when there is a risk of respiratory distress in preterm infants.

**Biography**

Martina Valencia has completed his MSc and PhD at Universidad Autónoma de Barcelona School of Medicine (Spain). He has published more than 20 papers in reputed journals and four books.

martina.valencia@pucv.cl

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