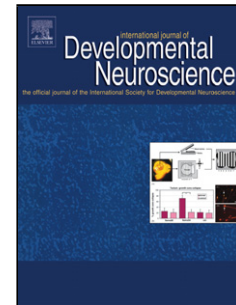


Accepted Manuscript

Title: Beneficial effects of environmental enrichment on behavior, stress reactivity and synaptophysin/BDNF expression in hippocampus following early life stress

Authors: nullvgenia Dandi, Aikaterini Kalamari, Olga Touloumi, Rosa Lagoudaki, Evangelia Nousiopoulou, Constantina Simeonidou, Evangelia Spandou, Despina null. Tata



PII: S0736-5748(17)30320-9
DOI: <https://doi.org/10.1016/j.ijdevneu.2018.03.003>
Reference: DN 2242

To appear in: *Int. J. Devl Neuroscience*

Received date: 30-11-2017
Revised date: 7-3-2018
Accepted date: 8-3-2018

Please cite this article as: Dandi, x395;vgenia, Kalamari, Aikaterini, Touloumi, Olga, Lagoudaki, Rosa, Nousiopoulou, Evangelia, Simeonidou, Constantina, Spandou, Evangelia, Tata, Despina x391;., Beneficial effects of environmental enrichment on behavior, stress reactivity and synaptophysin/BDNF expression in hippocampus following early life stress. *International Journal of Developmental Neuroscience* <https://doi.org/10.1016/j.ijdevneu.2018.03.003>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Beneficial effects of environmental enrichment on behavior, stress reactivity and synaptophysin / BDNF expression in hippocampus following early life stress

Evgenia Dandi¹, Aikaterini Kalamari¹, Olga Touloumi³, Rosa Lagoudaki³, Evangelia Nousiopoulou³, Constantina Simeonidou², Evangelia Spandou^{2*}, Despina A. Tata^{1*}

¹Laboratory of Cognitive Neuroscience, School of Psychology, Aristotle University of Thessaloniki, Thessaloniki, Greece

²Laboratory of Experimental Physiology, School of Medicine, Aristotle University of Thessaloniki, Thessaloniki, Greece

³Laboratory of Neuroimmunology, School of Medicine, Aristotle University of Thessaloniki, Greece

*Contact Information:

¹Despina A. Tata, Ph.D., Laboratory of Cognitive Neuroscience, School of Psychology, Aristotle University of Thessaloniki, 541 24 Thessaloniki, Greece. Tel.: +302310 997369, Fax: +302310 997384, E-mail: dtata@psy.auth.gr

²Evangelia Spandou, MD, Ph.D., Laboratory of Experimental Physiology, School of Medicine, Aristotle University of Thessaloniki, 541 24 Thessaloniki, Greece. Tel.: +302310 999049, Fax: +302310 999079, E-mail: spandou@med.auth.gr

Highlights

- We examined the interaction between MS and EE on behavior, neuroendocrine stress response and BDNF/SYN expression.
- EE protected against the MS-related increased anxiety and spatial memory impairments.
- EE decreased corticosterone levels in MS rats following exposure to an acute stressor.
- EE restored the downregulation of BDNF and SYN expression in MS rats.

Abstract

Exposure to environmental enrichment can beneficially influence the behavior and enhance synaptic plasticity. The aim of the present study was to investigate the

Download English Version:

<https://daneshyari.com/en/article/8626080>

Download Persian Version:

<https://daneshyari.com/article/8626080>

[Daneshyari.com](https://daneshyari.com)