### Accepted Manuscript

Title: Low-functional programming of the CREB/BDNF/TrkB pathway mediates cognitive impairment in male offspring after prenatal dexamethasone exposure

Authors: Wanting Dong, Dan Xu, Zewen Hu, Xia He, Zijing Guo, Zhexiao Jiao, Ying Yu, Hui Wang

| PII:           | S0378-4274(17)31443-1                        |
|----------------|--|
| DOI:           | https://doi.org/10.1016/j.toxlet.2017.10.020 |
| Reference:     | TOXLET 9986                                  |
| To appear in:  | Toxicology Letters                           |
| Received date: | 11-6-2017                                    |
| Revised date:  | 19-10-2017                                   |
| Accepted date: | 26-10-2017                                   |
|                |  |

Please cite this article as: Dong, Wanting, Xu, Dan, Hu, Zewen, He, Xia, Guo, Zijing, Jiao, Zhexiao, Yu, Ying, Wang, Hui, Low-functional programming of the CREB/BDNF/TrkB pathway mediates cognitive impairment in male offspring after prenatal dexamethasone exposure.Toxicology Letters https://doi.org/10.1016/j.toxlet.2017.10.020

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.



## ACCEPTED MANUSCRIPT

#### Title page

# Low-functional programming of the CREB/BDNF/TrkB pathway mediates cognitive impairment in male offspring after prenatal dexamethasone exposure

Wanting Dong<sup>1</sup>, Dan Xu<sup>1,2,\*</sup>, Zewen Hu<sup>1</sup>, Xia He<sup>1</sup>, Zijing Guo<sup>1</sup>, Zhexiao Jiao<sup>1</sup>, Ying Yu<sup>2,3</sup>, Hui Wang<sup>1,2</sup> <sup>1</sup> Department of Pharmacology, School of Basic Medical Sciences, Wuhan University, Wuhan 430071, China <sup>2</sup> Hubei Provincial Key Laboratory of Developmentally Originated Disease, Wuhan 430071, China <sup>3</sup> Department of Neurology, Renmin Hospital of Wuhan University, Wuhan 430060, China

#### \*Corresponding author:

Department of Pharmacology, Basic Medical School of Wuhan University, Wuhan, 430071, Hubei Province, China.

*Fax*: +86-027-68759222, *Telephone*: +86-15972228956 *E-mail address*: xuyidan70188@whu.edu.cn (Dan Xu).

#### Highlights

- Prenatal dexamethasone exposure (PDE) causes cognitive impairment in offspring rats.
- PDE induces abnormal proliferation, apoptosis and synaptic plasticity in hippocampi.
- PDE induces low-functional programming of the hippocampal CREB/BDNF/TrkB signalling.

#### **Conflicts of interest/disclosures**

None.

#### Acknowledgement

This work was supported by grants from the National Natural Science Foundation of China (Nos. 81220108026, 81430089, 81371483, 81671472).

Download English Version:

## https://daneshyari.com/en/article/8553491

Download Persian Version:

https://daneshyari.com/article/8553491

Daneshyari.com