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Basic Study

AlCl₃ exposure regulates neuronal development through modulating DNA modification

Cheng XJ *et al.* AlCl₃ and neuronal development.

Xue-Jun Cheng, Fu-Lai Guan, Qian Li, Gong Dai, Hai-Feng Li, Xue-Kun Li

Abstract

BACKGROUND

As the third most abundant element, aluminum is widespread in the environment. Previous studies have shown that aluminum has a neurotoxic effect and its exposure can impair neuronal development and cognitive function.

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Author: Giuliana Di Rocco, Silvia Baldari, Giovam...

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Oct 27, 2015 · A major concern of aluminum (Al) toxicity in humans and animals has been raised during the last decades.¹ In 2007, Al was included in the priority list of hazardous substances identified by The Agency for Toxic Substances and Disease Registry.² **Exposure** to Al is very common during daily life due to the facts that it is widely distributed in the environment, and ...

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Author: Hussain S. Al Dera

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Epigenetic effects of stress and corticosteroids in the brain

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3329877>

Apr 19, 2012 · **DNA modifications. DNA methylation of cytosines** adjacent guanines (CpG sites) is a major epigenetic mark. CpG islands, which are regions of the genome with a high concentration of CpG pairs are often located within the promoter or enhancer regions of genes.

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Author: Richard G. Hunter

Publish Year: 2012

Dnmt1 and Dnmt3a maintain DNA methylation and regulate ...

<https://www.nature.com/articles/nn.2514>

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[Epigenetics and the Modulation of Neuroinflammation](#)

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Regulation of Neuroinflammation by Non-coding RNA. A third mechanism of epigenetic **regulation** of gene expression is **through** non-coding RNAs. RNA molecules that do not code for protein are prevalent within total RNA samples [], and modulate gene expression and protein translation **through** a number of mechanisms. The most well studied form of non-coding RNA is microRNA (miRNA). miRNAs employ ...

Cited by: 56 **Author:** Gwenn A. Garden

Publish Year: 2013

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<https://www.nature.com/articles/nn.2514>

Mar 14, 2010 - The long-lasting changes in synaptic plasticity that underlie learning and memory require changes in **neuronal** gene expression. Epigenetic mechanisms such as histone **modification** 1 and **DNA** ...

Cited by: 848 **Author:** Jian Feng, Yu Zhou, Yu Zhou, Susan L C...