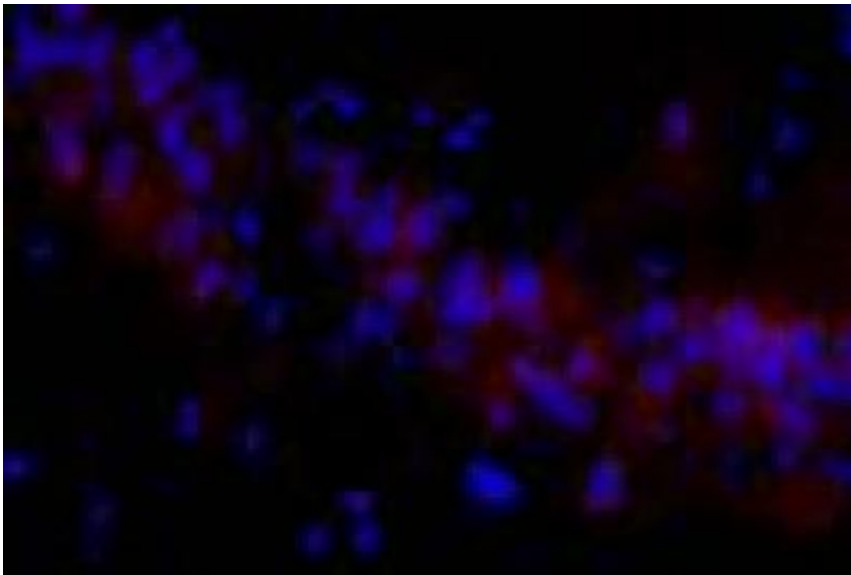


# Drinking alcohol during pregnancy affects learning and memory function in offspring?

July 19 2013

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A large number of hippocampal neurons were stained with cyclin-dependent kinase 5 in the offspring from the ethanol-treated group (immunofluorescence,  $\times 400$ ). Credit: *Neural Regeneration Research*

Maternal alcohol consumption during pregnancy has detrimental effects on fetal central nervous system development.

Maternal [alcohol consumption](#) prior to and during pregnancy significantly affects cognitive functions in offspring, which may be related to changes in cyclin-dependent kinase 5 because it is associated with modulation of synaptic plasticity and impaired learning and

memory. Prof. Ruiling Zhang and team from Xinxiang Medical University explored the correlation between cyclin-dependent kinase 5 expression in the hippocampus and neurological impairments following prenatal ethanol exposure, and found that prenatal ethanol exposure could affect cyclin-dependent kinase 5 and its activator p35 in the hippocampus of offspring rats.

These findings, which reported in the *Neural Regeneration Research* (Vol. 8, No. 18, 2013), propose new insights into the mechanisms underlying the role of ethanol exposure in [central nervous system](#) injuries, and provide a new strategy for treating the consequences of prenatal ethanol exposure.

Provided by Neural Regeneration Research

Citation: Drinking alcohol during pregnancy affects learning and memory function in offspring? (2013, July 19) retrieved 20 March 2024 from <https://medicalxpress.com/news/2013-07-alcohol-pregnancy-affects-memory-function.html>

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