Methamphetamine use in pregnancy changes learning ability of the offspring

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Studies have suggested that infants exposed to methamphetamines while in the womb can suffer irreversible brain damage, although the exact effects of these drugs during pregnancy have been hard to pinpoint due to many other negative behaviors that often occur in meth users.

Now, using a guinea pig model that can assess neural changes in offspring born to mothers given methamphetamine during an otherwise normal pregnancy, Dr. Sanika Samuel Chirwa provides new evidence for the cognitive damage of these drugs.

In preliminary studies, Chirwa and colleagues found that guinea pig pups born to mothers that had received 1 mg/day of methamphetamine during pregnancy exhibit an impaired ability to distinguish novel objects from items they had seen before. This lack of recognition correlated with changes in the brain region, the hippocampus, associated with memory formation.

Source: American Society for Biochemistry and Molecular Biology