From: Andrew Kraft
To: John Whalan
Cc: Barbara Glenn; Danielle DeVoney; David Bayliss; Glinda Cooper; Jennifer Jinot; Ravi Subramaniam; Sury Vulimiri; Susan Euling; Susan Makris; Thomas Bateson
Subject: Re: Estimated Time Line for Completing Formaldehyde Assessment
Date: 08/23/2011 09:43 AM

(b) (5) [redacted]

Andrew

▼ John Whalan---08/23/2011 08:37:58 AM---The July, 2011 Zararsiz et al. paper will probably be provided in the next literature search, which

From: John Whalan/DC/USEPA/US
To: Sury Vulimiri/DC/USEPA/US@EPA
Cc: Barbara Glenn/DC/USEPA/US@EPA, Andrew Kraft/DC/USEPA/US@EPA, Danielle DeVoney/DC/USEPA/US@EPA, David Bayliss/DC/USEPA/US@EPA, Glinda Cooper/DC/USEPA/US@EPA, Jennifer Jinot/DC/USEPA/US@EPA, Ravi Subramaniam/DC/USEPA/US@EPA, Susan Euling/DC/USEPA/US@EPA, Susan Makris/DC/USEPA/US@EPA, Thomas Bateson/DC/USEPA/US@EPA
Date: 08/23/2011 08:37 AM
Subject: Re: Estimated Time Line for Completing Formaldehyde Assessment

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The July, 2011 Zararsiz et al. paper will probably be provided in the next literature search, which could arrive any day. If not, let me know.

(b) (5) [redacted]

John

▼ Sury Vulimiri---08/22/2011 05:55:31 PM---New Literature on FA Toxicol Ind Health. 2011 Aug;27(7):591-8. Epub 2011 Feb 28.

From: Sury Vulimiri/DC/USEPA/US
To: Barbara Glenn/DC/USEPA/US@EPA
Cc: Andrew Kraft/DC/USEPA/US@EPA, Danielle DeVoney/DC/USEPA/US@EPA, David Bayliss/DC/USEPA/US@EPA, Glinda Cooper/DC/USEPA/US@EPA, Jennifer Jinot/DC/USEPA/US@EPA, John Whalan/DC/USEPA/US@EPA, Ravi Subramaniam/DC/USEPA/US@EPA, Susan Euling/DC/USEPA/US@EPA, Susan Makris/DC/USEPA/US@EPA, Thomas Bateson/DC/USEPA/US@EPA
Date: 08/22/2011 05:55 PM
Subject: Re: Estimated Time Line for Completing Formaldehyde Assessment

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New Literature on FA

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Toxicol Ind Health. 2011 Aug;27(7):591-8. Epub 2011 Feb 28.

Assessment of the potential reproductive toxicity of long-term exposure of adult male rats to low-dose formaldehyde.

Dangxia Zhou, Jing Zhang, Haixu Wang.

Source

Pathology Department, Medical School, Xi'an Jiaotong University, Xi'an, China. dangxia75@163.com.

Abstract

Formaldehyde (FA), a ubiquitous environmental pollutant, is extensively used in hospitals, laboratories and many industrial settings. Previous studies have showed that short-term, high-dose FA exposure is toxic to male reproduction of mammals. In this paper, we evaluated the male reproductive toxicity of long-term, low-dose formaldehyde exposure in rats, and explored the potential mechanisms. A total of 30 Sprague-Dawley male rats were randomly allotted to three groups, rats were exposed to FA at a dose of (b) (5) [redacted] (b) (5) respectively by inhalation for consecutive (b) (5). The results indicated that the (b) (5) [redacted] Testicular, epididymal structure and function in rats of 0.5 mg/m(3) FA exposure group showed no obvious difference compared with those in control group. However, sperm quantity and quality, testicular seminiferous tubular diameter, the activities of superoxide dismutase and glutathione peroxidase was significantly decreased whereas the level of malondialdehyde was significantly increased in rats of 2.46 mg/m(3) FA exposure group compared with those in control group. Moreover, histopathological results showed atrophy of seminiferous tubules, decreases of spermatogenic cells and the lumina were oligozoospermic in testes of 2.46 mg/m(3) FA exposure rats. In conclusion, the level of 0.5 mg/m(3) can be considered as a safe level for FA exposure, but long-term FA exposure at a dose of 2.46 mg/m(3) has a harmful effect on male reproduction by inducing oxidative stress in male rats.

PMID:
21357637
[PubMed - in process]

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Toxicol Ind Health. 2011 Jul;27(6):489-95. Epub 2011 Mar 28.

Protective effects of omega-3 essential fatty acids against formaldehyde-induced cerebellar damage in rats.

Zararsiz I, Meydan S, Sarsilmaz M, Songur A, Ozen OA, Sogut S.

Source

Department of Anatomy, Tayfur Ata Sokmen Faculty of Medicine, Mustafa

Kemal University, Antakya, Turkey. izararsiz@hotmail.com

Abstract

This study aimed to investigate changes in the cerebellum of formaldehyde-exposed rats and the effects of omega-3 fatty acids on these changes. The study involved 21 male Wistar-Albino rats which were divided into three groups. The rats in Group I comprised the control group. The rats in Group II were injected with intraperitoneal 10% formaldehyde every other day. The rats in Group III received omega-3 fatty acids daily while exposed to formaldehyde. At the end of the 14-day experimental period, all rats were killed by decapitation and the cerebellum removed. The activities of catalase (CAT), superoxide dismutase (SOD), glutathione peroxidase (GSH-Px), xanthine oxidase (XO), and malondialdehyde (MDA) levels were determined in

(b) (5)

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Sury

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