



## Sucralose administered in feed, beginning prenatally through lifespan, induces hematopoietic neoplasias in male swiss mice.

MS<sup>1</sup>, MP<sup>1</sup>, ET<sup>1</sup>, LF<sup>1</sup>, FM<sup>1</sup>, ML<sup>1</sup>, LB<sup>1</sup>, MM<sup>1</sup>, FB<sup>1</sup>.

### Author information

### Abstract

**BACKGROUND:** Sucralose is an organochlorine artificial sweetener approximately 600 times sweeter than sucrose and used in over 4,500 products. Long-term carcinogenicity bioassays on rats and mice conducted on behalf of the manufacturer have failed to show the evidence of carcinogenic effects.

**OBJECTIVE:** The aim of this study was to evaluate the carcinogenic effect of sucralose in mice, using a sensitive experimental design.

**METHODS:** Five groups of male (total n = 457) and five groups female (total n = 396) Swiss mice were treated from 12 days of gestation through the lifespan with sucralose in their feed at concentrations of 0, 500, 2,000, 8,000, and 16,000 ppm.

**RESULTS:** We found a significant dose-related increased incidence of males bearing malignant tumors ( $p < 0.05$ ) and a significant dose-related increased incidence ( $p < 0.01$ ) of hematopoietic neoplasias in males, in particular at the dose levels of 2,000 ppm ( $p < 0.01$ ) and 16,000 ppm ( $p < 0.01$ ).

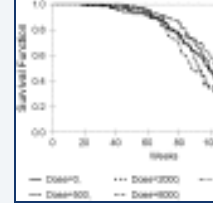
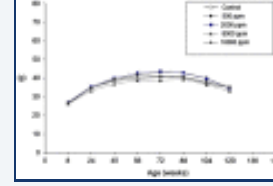
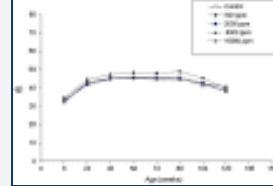
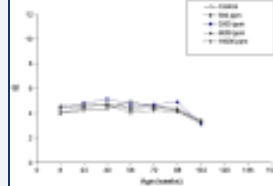
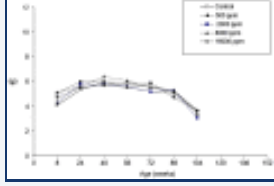
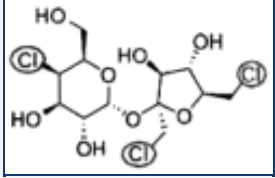
**CONCLUSIONS:** These findings do not support previous data that sucralose is biologically inert. More studies are necessary to show the safety of sucralose, including new and more adequate carcinogenic bioassay on rats. Considering that millions of people are likely exposed, follow-up studies are urgent.

**KEYWORDS:** Carcinogenicity bioassays; Hematopoietic neoplasias; Mice; Prenatal; Sucralose

PMID: 27078173 PMCID: [PMC4894270](#) DOI: [10.1080/10773525.2015.1106075](#)

[PubMed - in process]





[LinkOut - more resources](#)



[PubMed Commons](#)

[PubMed Commons home](#)

0 comments

[How to join PubMed Commons](#)