

Another 2-year GMO corn and Roundup study finds no evidence of increased cancer, again repudiating Séralini's retracted 2012 study

In 2012, a controversial study on the long-term toxicity of a Roundup herbicide and the glyphosate-tolerant genetically modified (GM) maize NK603 was published.

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In the [study by Séralini et al.](#), the Sprague–Dawley rat strain was chosen and a very high incidence of mammary gland tumors in female animals was reported. However, the female Sprague–Dawley rats are not suitable to demonstrate treatment-related mammary carcinogenesis because of the [very high incidence](#) of spontaneously formed mammary gland tumors.

In the present study, the incidence of mammary gland neoplasms in female rats fed the control diet was 44% (i.e. 7 adenocarcinomas, 2 adenomas and 13 fibroadenomas out of 50 rats). Therefore, the Wistar Han RCC rat strain used in the present study was a suitable choice to test if the GM maize NK603 had the ability to stimulate mammary gland carcinogenesis. It should be noted that the Wistar Han RCC rat strain has previously been used in numerous studies as an experimental model of chemically induced mammary gland carcinogenesis.

In the 90-day feeding trial with the GM maize NK603 at an inclusion rate of 11 and 33% in the diets, no adverse changes were observed [in]....the health status of the animals, the body weights, the haematological and clinical biochemical parameters, the relative organ weights as well as the necropsy and histopathology findings.

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In the study by Séralini et al., the most frequently occurring anatomical pathologies were observed in the kidneys, liver and digestive tract of male Sprague–Dawley rats and in the pituitary gland and mammary glands, including mammary tumors, in female Sprague–Dawley rats.

Moreover, Séralini et al. indicated that the diets containing the untreated GM maize NK603 and the Roundup-treated GM maize NK603 contained significantly lower levels of the phenolic acids caffeic acid and ferulic acid than the control diet and hypothesised that this decrease could explain the higher tumor incidence observed in the GM maize NK603-fed rats due to less protection afforded by these compounds.

In the present study, there were no statistically significant differences in the number of non-neoplastic and neoplastic findings in the above-mentioned organs/tissues between Wistar rats fed the control diet and those fed the GM maize NK603-containing diets.

Read full, original article: [Lack of adverse effects in subchronic and chronic toxicity/carcinogenicity studies on the glyphosate-resistant genetically modified maize NK603 in Wistar Han RCC rats](#)