

## Science first in GM debate

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**Evry, 2 October 2012** - Science must come first in the GMO debate

Last week a scientific article in a peer-reviewed journal (Seralini et al., 2012) reported that feeding to rats a transgenic corn line harboring a gene for glyphosate herbicide resistance gene caused tumor formation in these animals. A look at the article revealed that neither the OECD standards (minimal size of 50 animals per group) nor an appropriate animal line (the authors chose a line with a natural tumor formation rate of more than 50%) was used in the study (Chandra et al., 1992). Besides revealing no dose-dependency between mortality or cancerogenesis and either the pesticide or the GMO maize, the study also suggested that eating the GMO maize plus the herbicide was better than eating the GMO maize alone. These severe scientific shortcomings should have resulted in the rejection of the article. Unfortunately this was not the case and instead, the article was heralded by anti GMO campaigners as the final scientific proof that eating GMO food causes tumors. A critical analysis reveals that the work in fact provides a clear example of how an inappropriate choice of the investigated group size will lead to random results.

The conclusions of the study will surely have to be reconsidered when researchers take up the subject and repeat the experiments under appropriate scientific conditions. It is the power of science to validate scientific findings, correct mistakes and arrive at sound conclusions. In the GMO debate, however, science is regularly overwhelmed by political interests; we as scientists have to speak out against this. The GMO debate must be based on sound science and we as the scientific community have to watch that studies that do not meet the scientific standards are not uncritically accepted by the media as scientific truth.

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### References:

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Chandra M. *et al.* (1992) Spontaneous neoplasms in aged sprague-dawley rats. *Arch. Toxicology* 66: 496-502

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