Published on *Adam Smith Institute* (http://www.adamsmith.org)

Making a mockery of scientific ethics [1]

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Last week saw an outrageous abuse of scientific ethics which deserves wider coverage and denunciation in case it becomes widespread. French scientists based at Caen had a paper published in the journal "Food and Chemical Toxicology." The paper concerned the effects on rats who were fed supplements of the herbicide Roundup or a crop genetically modified to tolerate high levels of Roundup.

Unusually, as Arstechnica reports [3], journalists who wanted advance copies were obliged to sign an agreement not to show the findings to any outside experts before publication.

This unprecedented step meant that the usual process of peer review and assessment which is basic to science was thwarted. Usually scientific journalists contact outside experts in advance of publication to see what validity the new study has, and to comment on any weaknesses they might see.

In this case they were prevented from doing so, and the initial coverage lacked the analysis that customarily puts such papers in context. Following that initial coverage, the experts found much at fault in the survey.

"The authors used a strain of rats that is prone to tumors late in life. Every single experimental condition was compared to a single control group of only 10 rats, and some of the experimental groups were actually healthier than the controls. The authors didn't use a standard statistical analysis to determine whether any of the experimental groups had significantly different health problems."

Some of them were completely dismissive of any value the report might claim to have.

One called the work "a statistical fishing trip" while another said the lack of proper controls meant "these results are of no value." One report quoted a scientist at UC Davis as saying, "There is very little scientific credibility to this paper. The flaws in the test are just incredible to me."

The point is that the scientific authors deliberately prevented these flaws from being revealed at the time of publication. They had a field day of uncritical coverage, and violated all the ethics of scientific research to achieve that. The result is that for years to come anti-GM zealots will cite their findings without any of the criticism that undermined them.

As they say, a lie can be halfway round the world before truth gets its boots on.

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