

# French scientists revive assault on pesticide, GM corn (Update)

24 June 2014, by Richard Ingham And Celine Serrat



Maize in a cob in a field in Godewaersvelde, northern France on September 28, 2012

Scientists who wrote a contested study linking pesticide-treated, genetically-modified corn with tumours and liver and kidney disease in lab rats returned to the attack on Tuesday, republishing their work online.

Denying accusations of bad science, the team said their work, which was withdrawn by the journal which first printed it, had been republished in *Environmental Sciences Europe*, owned by Germany's Springer group.

The raw data has now been placed in the public domain for others to scrutinise, the researchers said.

"Censorship of research into the risks of a technology so intertwined with global food safety undermines the value and credibility of science," the team said in a statement.

The research kicked up a hornet's nest when it was first published in September 2012.

Its authors, led by Gilles-Eric Seralini, a professor

at the University of Caen in Normandy, said rats fed NK603 corn and Roundup weedkiller developed liver and kidney disease as well as kidney, mammary and skin tumours.

Some of these were cancer, the scientists said, but added their study was designed to test toxicity, not carcinogenicity.

Many other scientists have criticised the original study as flawed. And commentators said Tuesday nothing has changed through publishing it again.

NK603, made by the US agribusiness giant Monsanto, has been engineered to be immune to the weedkiller Roundup. As a result, farmers can spray their fields to kill weeds without harming their crops.

The authors stood by their research on Tuesday and lashed out at the journal *Food and Chemical Toxicology* for withdrawing it—a great humiliation in the scientific world.

"Roundup formulations and Roundup-tolerant GMOs should be considered as (hormonal) disruptors and their present assessments on health are drastically deficient," they wrote.

## 'Whistleblowers'

Open publication in the Springer journal provides a forum "so that science can reclaim its rights against the pressures of the industry seeking to suppress 'whistle-blowers'," added the researchers.

At a press conference in Paris, Seralini said his team had received proposals from five publishers to run the study again.

"We chose *Environmental Sciences Europe*, because this journal is open source, meaning that it will help to place the raw data at the disposal of the entire scientific community."

The scientists said it was the first study to be carried out on lab rodents over their normal lifespan of two years as opposed to the usual 90 days.

But critics have said the number of rats studied was too small and of a strain prone to cancer, and their lab diet did not closely resemble the animals' natural food intake.

On Tuesday, they said their concerns remained unanswered.

"Republishing data that was faulty in the first place in study design and analysis does not provide redemption. Furthermore, it is now possible to publish almost anything in open access journals," said Tom Sanders, a professor of nutrition and dietetics at King's College London.

The work used 200 male and female rats, split into 10 groups of 20 animals.

One was a "control" group given ordinary rat food containing 33 percent non-GM corn, and plain water.

Three groups were given ordinary rat food and water with different doses of Roundup to reflect various concentrations of the weedkiller in the food chain.

The other six were fed rat food of which 11, 22 or 33 percent comprised NK603 corn, either treated with Roundup during growth or untreated.

The researchers found that rats exposed to the corn and/or the weedkiller suffered similar ill health, but the severity did not depend on the dosage—a discovery they said pointed to disruption of the hormone system.

In October 2012, six French scientific academies dismissed the Seralini study as a "scientific non-event" that had "spread fear among the public that is not based on any firm conclusion."

Two national panels of experts, the Higher Biotechnologies Council (HCB) and the National Agency for Food Safety (ANSES), also rejected it but said it raised issues about long-term impacts

that deserved wider investigation.

Others, while faulting the study, said agribusiness should be forced into greater transparency about its experiments with GM crops.

In emailed comments to AFP, Monsanto said the research "has been rejected by an unprecedented number of scientists around the world."

"We take any new scientific data about our products very seriously, but in the present case, there is nothing new."

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