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# **GM: New study shows unborn babies could be harmed**

## **Mortality rate for new-born rats six times higher when mother was fed on a diet of modified soya**

**By Geoffrey Lean, Environment Editor**

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Women who eat GM foods while pregnant risk endangering their unborn babies, startling new research suggests.

The study - carried out by a leading scientist at the Russian Academy of Sciences - found that more than half of the offspring of rats fed on modified soya died in the first three weeks of life, six times as many as those born to mothers with normal diets. Six times as many were also severely underweight.

The research - which is being prepared for publication - is just one of a clutch of recent studies that are reviving fears that GM food damages human health. Italian research has found that modified soya affected the liver and pancreas of mice. Australia had to abandon a decade-long attempt to develop modified peas when an official study found they caused lung damage.

And last May this newspaper revealed a secret report by the biotech giant Monsanto, which showed that rats fed a diet rich in GM corn had smaller kidneys and higher blood cell counts, suggesting possible damage to their immune systems, than those that ate a similar conventional one.

The United Nation's Food and Agriculture Organisation held a workshop on the safety of genetically modified foods at its Rome headquarters late last year. The workshop was addressed by scientists whose research had raised concerns about health dangers. But the World Trade Organisation is expected next month to support a bid by the Bush administration to force European countries to accept GM foods.

The Russian research threatens to have an explosive effect on already hostile public opinion. Carried out by Dr Irina Ermakova at the Institute of Higher Nervous Activity and Neurophysiology of the Russian Academy of Sciences, it is believed to be the first to look at the effects of GM food on the unborn.

The scientist added flour from a GM soya bean - produced by Monsanto to be resistant to its pesticide, Roundup - to the food of female rats, starting two weeks before they conceived, continuing through pregnancy, birth and nursing. Others were given non-GM soya and a third group was given no soya at all.

She found that 36 per cent of the young of the rats fed the modified soya were severely underweight, compared to 6 per cent of the offspring of the other groups. More alarmingly, a staggering 55.6 per cent of those born to mothers on the GM diet perished within three weeks of birth, compared to 9 per cent of the offspring of those fed normal soya, and 6.8 per cent of the young of those given no soya at all.

"The morphology and biochemical structures of rats are very similar to those of humans, and this makes the results very disturbing" said Dr Ermakova. "They point to a risk for mothers and their babies."

Environmentalists say that - while the results are preliminary - they are potentially so serious that they must be followed up. The American Academy of Environmental Medicine has asked the US National Institute of Health to sponsor an immediate, independent follow-up.

The Monsanto soya is widely eaten by Americans. There is little of it, or any GM crop, in British foods though it is imported to feed animals farmed for meat.

Tony Coombes, director of corporate affairs for Monsanto UK, said: "The overwhelming weight of evidence from published, peer-reviewed, independently conducted scientific studies demonstrates that Roundup Ready soy can be safely consumed by rats, as well as all other animal species studied."

#### **What the experiment found**

Russian scientists added flour made from a GM soya to the diet of female rats two weeks before mating them, and continued feeding it to them during pregnancy, birth and nursing. Others were given non-GM soya or none at all. Six times as many of the offspring of those fed the modified soya were severely underweight compared to those born to the rats given normal diets. Within three weeks, 55.6 per cent of the young of the mothers given the modified soya died, against 9 per cent of the offspring of those fed the conventional soya.

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