

Quotes from scientists/experts relayed in the media since 19 September 2012:
(Compilation by EuropaBio)

“With ten rats from the same sex per group, **we would need to see extremely major effects for the result to be significant**”, explains Marc Lavielle, biostatistician (INRIA) and member of the Haut Conseil des Biotechnologies.

http://www.lemonde.fr/planete/article/2012/09/25/ogm-les-vrais-et-faux-arguments-du-professeur-seralini_1765303_3244.html

As Pamela Ronald, a UC-Davis plant geneticist [pointed out](#) last year in *Scientific American*:

"There is broad scientific consensus that genetically engineered crops currently on the market are safe to eat. After 14 years of cultivation and a cumulative total of 2 billion acres planted, no adverse health or environmental effects have resulted from commercialization of genetically engineered crops."

http://www.slate.com/articles/health_and_science/science/2012/09/are_gmo_foods_safe_opponents_are_skewing_the_science_to_scare_people.html

The controls used for the study, as Anthony Trewavas, a cell biologist at the University of Edinburgh, pointed out in a [press release response](#), are **"inadequate to make any deduction."**

Tom Sanders, head of the Nutritional Sciences Research Division at King's College London, pointed this fact out in the press-release response. "Most toxicology studies are terminated at normal lifespan i.e. 2 years. Immortality is not an alternative."

<http://blogs.discovermagazine.com/crux/2012/09/21/under-controlled-why-the-new-gmo-panic-is-more-sensational-than-sense/>

“This doesn’t bring much value”, said Gérard Pascal, toxicologist, former member of the French research institute INRA. “To conduct a serious 2-year cancer research, groups of at least 50 rats should be used; however in this case, we count only 10. Because of the spontaneous deaths that happen during the experience, **the sample is much too small to be able to draw any conclusions.** In addition, the rat species used is known to develop spontaneously mammary cancers”.

“Apart from GM Maize, we don’t know what they have eaten. In addition, **maize contains mycotoxins, natural substances that are carcinogenic. Did we measure their concentration?**”

The paper doesn't say it", comments Prof. Marc Fellous, former chair of the biomolecular engineering Committee.

Prof. Frédéric Pagès, chair of the scientific committee of the Haut Conseil des Biotechnologies explains that "we will take the time needed to carry out a thorough analysis without any time pressure" but has already taken up arms against the "use that is by no mean scientific of the photos" of the rats and the "over-mediatisation" of the study.

<http://sante.lefigaro.fr/actualite/2012/09/20/19097-letude-sur-ogm-fortement-contestee>

Prof. Christian Marescaux, former head of the research unit at INSERM – a French public research institute: Institut National de la Santé et de la Recherche Médicale, and currently neurologist at the Hôpitaux universitaires de Strasbourg: **"there are a number of inconsistencies in the figures, non-verifiable statements and rapid deductions that I find astounding. Everything is illogical**, even in the way animals are fed, with a free access to food and water (...) This has never been seen in the field of toxicity: the more you absorb a toxic product, the less you die from it! (...) Here again, **it is not possible to draw significant conclusions"**.

<http://www.dna.fr/sciences/2012/09/26/des-resultats-incoherents>

Gerard Pascal, toxicologist, former member of the French research institute INRA: **"all these shortcomings are unacceptable for a scientific study**. This is why I do not understand how these results were published in the *Food and Chemical Toxicology*, a review that makes peer-review compulsory".

http://www.lemonde.fr/planete/article/2012/09/20/ogm-le-protocole-d-etude-de-m-seralini-presente-des-lacunes-redhibitoires_1762772_3244.html

Jean-François Narbonne, member of Anses – the French food safety agency: "the media campaign has been well prepared as there was an media exclusivity involved, which allows to promote books and films that develop topics based on results that could not be subject to a needed scientific critic process (...) **criticisms on the evaluation process by agencies seem to be more political than scientific, with some clear untruth"**.

http://www.huffingtonpost.fr/jeanfrancois-narbonne/lacunes-resultats-suprenants-et-inexplicables-letude-anti-ogm-sur-la-sellette_b_1902634.html?utm_hp_ref=france&utm_hp_ref=france

Philippe Joudrier, biologist, expert on green biotechnologies and former director at the French research institute INRA: "As the results are currently presented, they indeed appear very alarming. But **already in the introduction, the study starts with a lie. It is not the first long-term toxicity study.** About 50 in the scientific literature have been identified; some of them have lasted for 3 years with pigs. Last year, a meta-analysis was published. It referred to 24 long-term toxicology analyses, including 12 trans-generational studies and on several generations of rats. It didn't lead to any worrying conclusions".

<http://www.enviro2b.com/2012/09/24/ogm-il-est-anormal-que-la-recherche-ne-puisse-pas-avancer/>

Louis-Marie Houdebine, researcher at INRA and father of transgenesis: "We need to look in details if there is no bias in the experimental protocol. **It is a rather astonishing result because for 5000 years, we have been eaten maize and mixed genes through selection and other methods, and nothing has ever been recorded on toxicology aspects**".

<http://www.allodocteurs.fr/actualite-sante-ogm-l-etude-choc-vue-par-le-pere-de-la-transgene-se-8162.asp?1=1>

"There is no question that the publication of Séralini's latest attack on genetically engineered foods was **a well-planned and cleverly orchestrated media event.**"

- Henry I. Miller, a physician and molecular biologist, is the Robert Wesson Fellow in Scientific Philosophy and Public Policy at Stanford University's Hoover Institution and Bruce M. Chassy, a biochemist and molecular biologist, is former head of the Department of Food Science and Nutrition at the University of Illinois at Urbana-Champaign and is now Professor Emeritus of Food Science.

<http://www.forbes.com/sites/henrymiller/2012/09/25/scientists-smell-a-rat-in-fraudulent-genetic-engineering-study/3/>

"**This strain of rat is very prone to mammary tumours** particularly when food intake is not restricted. [...] The statistical methods are unconventional ... and it would appear the authors have gone on a statistical fishing trip."

- Prof Tom Sanders, Head of the Nutritional Sciences Research Division, King's College London

<http://www.reuters.com/article/2012/09/19/gmcrops-safety-idUSL5E8KJC1220120919>

“In my opinion, the methods, stats and reporting of results are all **well below the standard I would expect in a rigorous study** – to be honest I am surprised it was accepted for publication.”

- Prof David Spiegelhalter, Winton Professor of the Public Understanding Of Risk, University of Cambridge

http://www.sciencemediacentre.org/pages/press_releases/12-09-19_gm_maize_rats_tumour_s.htm

“The control group is inadequate to make any deduction. “

- Prof Anthony Trewavas, Professor of Cell Biology, University of Edinburgh

http://www.sciencemediacentre.org/pages/press_releases/12-09-19_gm_maize_rats_tumour_s.htm

“No food intake data is provided or growth data. This strain of rat is very prone to mammary tumours particularly when food intake is not restricted.”

- Prof Tom Sanders, Head of the Nutritional Sciences Research Division, King’s College London

http://www.sciencemediacentre.org/pages/press_releases/12-09-19_gm_maize_rats_tumour_s.htm

“The pesticide itself has been subject to long term studies in rodents by others.”

- Prof Alan Boobis, Professor of Biochemical Pharmacology, Imperial College London

http://www.sciencemediacentre.org/pages/press_releases/12-09-19_gm_maize_rats_tumour_s.htm

"The first thing that leaps to my mind is why has nothing emerged from epidemiological studies in the countries where so much GM has been in the food chain for so long"

- Prof Mark Tester, Australian Centre for Plant Functional Genomics, University of Adelaide

http://www.sciencemediacentre.org/pages/press_releases/12-09-19_gm_maize_rats_tumour_s.htm

“And they’re dealing with geriatric rats. That’s why the absence of controls in the study is an absolutely terrible omission. [...] What they were doing is presenting deaths of rats after two years, and **as anybody who has kept a rat will know, they die after two years.**”

- Prof Mark Tester, Australian Centre for Plant Functional Genomics, University of Adelaide

<http://www.abc.net.au/news/2012-09-20/rat-study-reignites-gm-food-debate/4272316>

“The way the study was conducted, including the treatment of the animals, especially those who developed tumours as these rats are known to do, **raises serious ethical concerns and profound questions of possible scientific misconduct.**”

- Dr. Bruce M. Chassy, professor emeritus of food science at the University of Illinois

<http://www.whynbiotech.com/?p=3516#more-3516>

“Séralini has published similar accounts before, but not one of them has withstood scientific scrutiny. That is **because he draws conclusions that cannot be derived from the data.**”

- VIB, the life sciences research institute Flanders

<http://www.vib.be/en/news/Pages/VIB-exceptionally-sceptical-about-the-S%C3%A9ralini-research.aspx>

"Although this paper has been published in a peer-reviewed journal with an IF of about 3, **there are anomalies throughout the paper that normally should have been corrected or resolved through the peer-review process.** For a paper with such potentially important findings, it would have been more satisfying to have seen something with a more conventional statistical analysis."

- Prof Maurice Moloney, Institute Director and Chief Executive, Rothamsted Research, the longest running agricultural research station in the world

<http://www.euractiv.com/cap/french-study-launches-gmo-debate-news-514900>

“It’s weirdly complicated and unclear on key issues: what the controls were fed, relative rates of tumors, why no dose relationship, what the mechanism might be. **I can’t think of a biological reason why GMO corn should do this.** [...]“So even though I strongly support labelling,” Nestle told All We Can Eat, “I’m sceptical of this study.”

- Marion Nestle, the Paulette Goddard professor in the Department of Nutrition, Food Studies and Public Health at New York University

http://www.washingtonpost.com/blogs/all-we-can-eat/post/french-scientists-question-safety-of-gm-corn/2012/09/19/d2ed52e4-027c-11e2-8102-eb9c66e190_blog.html

“The safety of the GM maize used in this study was evaluated rigorously before it was approved in the EU. We will consider any new information or research to assess whether there may be any implications on the safety of approved GM products.”

- Spokesman for the Food Standards Agency

“Scientifically, we have concerns about this report. One cannot make a ‘blanket’ judgement about GM foods or crops as this report appears to do, being on a single strain of GM maize – NK603”

- Jon Poole, chief executive of Institute of Food Science & Technology (IFST)

http://www.foodmanufacture.co.uk/Food-Safety/Scientists-row-as-authorities-ponder-Monsanto-GM-cancer-study?utm_source=copyright&utm_medium=OnSite&utm_campaign=copyright

“The study authors forget to say that the rats used in the test usually develop tumors In practice, 81% of these rats usually developed a tumor within 2 years. ”

- Roberto Defez, researcher, CNR

<http://salute24.ilsole24ore.com/articles/14661-gli-ogm-fanno-male-i-dubbi-sulla-ricerca-choc>

“Making a statistic of 10 rats fed for two years is like taking a test on humans by feeding the same diet for 40 years”, said Defez. “Moreover, without a statistical interpretation of the data: it indicates how the article very fragile position on a scientific basis.”

- Roberto Defez, researcher, CNR

<http://www.agenziaradicale.com/index.php/cronaca/545-ogm-e-cancro-scientiati-dubbiosi-sulle-ultime-ricerche>

“It is not responsible that TV publishes scientifically questionable statements without prior thorough research”

- Joachim Schiemann, Head of Julius- Kühn-Institut für die Sicherheit biotechnologischer Verfahren bei Pflanzen in Quedlinburg

(Frankfurter Allgemeinen Sonntagszeitung - 23.9.2012)

Association of biology, bioscience and biomedicine (Verband Biologie, Biowissenschaften und Biomedizin (VBIO e. V.) issued a statement saying that the study has considerable shortcomings and does not justify any quick actions. The position is shared by the Society for Genetics (Gesellschaft für Genetik).

“The study design is not acceptable – from the selection of the animals as well as the statistical approach”

- Diethard Tautz, vice president of the Association of Biology, Biosciences and Biomedicine in Germany (VBIO)

http://www.vbio.de/informationen/alle_news/e17162?news_id=14723

“We are skeptical. The results contradict our experiences gained in long-term study with cows”

- Michael Pfaffl, Professor of Molecular Physiology, Center of Life and Food Science (WZW)

<http://www.spiegel.de/wissenschaft/mensch/ratten-versuch-von-seralini-forscher-kritisieren-genmais-studie-a-857595.html>