

To:

Members of the European Parliament

Members and officials of the European Commission

National competent bodies and Permanent Representations to the EU

- *Scientific assessments unequivocally dismiss Séralini's claims about health effects of GM crops*

- *Public sector scientists and farmers unite their voice against misuse of science.*

29 November 2012

The September 2012 article of Séralini *et al*¹ claiming that rats developed cancer after being fed with genetically modified (GM) herbicide tolerant maize, resulted in an unprecedented wave of analyses and criticism from public sector scientists, including members of the Public Research and Regulation Initiative (PRRI). PRRI is a world-wide initiative of public sector scientists active in modern biotechnology research for the common good. PRRI is not affiliated with political parties or with the private sector.

Many national authorities, such as the German Federal Institute for Risk Assessment and the French Haut Conseil des Biotechnologies have issued reviews that all come to a similar conclusion, i.e. the design of the research of Séralini *et al* was so fundamentally flawed that the conclusions of the authors have no basis. An overview of these reviews is provided on the [PRRI website](#).

PRRI concurs with these reviews, and adds that Séralini widely publicised the unsubstantiated conclusions in a campaign with anti-biotech groups and politicians, which is a very unusual format for scientists. Moreover, as antivivisection groups also pointed out, letting this particular strain of rats - which spontaneously develop tumours - live so long that they develop huge tumours, is unethical².

The strong tone in the criticism of public researchers is to be understood in the context of the following. Modern biotechnology is a key tool for food security and sustainable farming, because it can overcome the limitations of conventional breeding and help providing farmers with crops that, for example, produce more yield, are less dependent on pesticides and fertilisers, or have higher nutritional value. The safety of GM crops are tested extensively in a way that conventionally produced crops are not, and over the last 16 years GM crops have been consumed by billions of animals and hundreds of millions of people, without a single verifiable report of adverse effects on human or animal health. Unsubstantiated claims about adverse effects of GM crops seriously jeopardises the contribution that modern biotechnology can make to human well being, and can seriously undermine public confidence in science.

The public debate that ensued following the publication of Séralini has revealed some persistent misconceptions. One misconception is that critics of the Séralini *et al.* approach actually accept the same experimental approach used to provide data for product dossiers submitted to the authorities. This is incorrect, since by extending a 90-day feeding trial to two years without adjusting the design of the study Séralini *et al* have introduced fundamental flaws in their study. A second misconception is that whoever criticises the research, does not take the safety of new technologies seriously. This is incorrect. Public sector scientists accept that new technologies and products are looked at in terms of safety. However, safety is not served by flawed research, unjustified conclusions and publicity campaigns which are both unscientific and scaremongering. A third misconception is that scientists who criticise the

¹ "Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize", Séralini *et al.*

² <http://www.buav.org/article/1112/buav-criticises-cruel-gm-food-rat-experiment>

study must have conflicts of interest (e.g. “industry-influenced scientists”). This is incorrect as the criticisms delivered by individual scientists, academic establishments, research institutes, national bodies and EFSA are based on science. A fourth misconception is that the conclusions of the article must be true, because the article was ‘peer reviewed’. This too is incorrect. Scientific peer review is a first filter aimed at strengthening the scientific robustness of an article, but is no guarantee that the article is flawless (as this case shows). Moreover, peer review does not and should not stop after publication. The criticism voiced by other scientists is also part of a peer review process, which in this case reveals that the paper did not merit acceptance for publication in a scientific journal. PRRI is indeed very surprised that this article passed the peer review process of the Journal of Food and Chemical Toxicology. The fact that Séralini *et al* have failed to provide a serious response to the fundamental criticisms (published in the same journal) begs the conclusion that the authors should retract the article.

On 28 November EFSA issued its [final opinion](#) on the article of Séralini et al, concluding that the study as reported by Séralini et al. was found to be “*inadequately designed, analysed and reported.*”.

PRRI fully endorses the analysis and conclusions of EFSA, and - together with the farmers organisations listed below – adds the concern about the way in which some policymakers have hastily reacted to the flawed research, and how some politicians have used the research to advance political agendas.

We need to recognise that especially in this complex area of food security and food safety, it is essential that journalists, politicians and policymakers take their responsibility to carefully read and reflect before publishing newspaper articles or making public statements. The immediate calls for bans or for stricter rules based on this flawed research had no basis, because the current safety requirements are robust and there is no scientific argument provided for additional testing or requirements.

Journalists, politicians, policymakers and other stakeholders are urged to carefully read publications and where necessary consult scientists before rushing to statements in this sensitive area. PRRI and the farmers organisations below offers their help by providing information on scientific aspects of GMOs and their impact on human and environmental health and on socio-economic consequences. On the “Information” page of the [PRRI website](#), journalists, politicians and policymakers will find a “priority button” for questions about science. In addition, following the successful STOA-PRRI seminar on “the impact of EU GMO Regulations on research in biotechnology for the public good” (February 2010), PRRI and the farmers organisations below offer to organise a similar type of seminar to provide an update on the state of biotechnology and biosafety, in which we can also address questions such as what ‘peer reviewed’ actually means.

On behalf of PRRI and of the farmer organisations Asociación Agraria Jóvenes Agricultores (ASAJA), Spain InnoPlanta (Germany), FuturAgra (Italy), Association of Maize producers (AGPM, France), AgroBiotechRom (Romania), Ligii Asociatiilor Producatorilor Agricoli din Romania (LAPAR, Romania) European Confederation of Maize (CEPM), Association of wheat, maize and oilseed producers (ORAMA, France), Fédération Nationale de la Production des Semences de Maïs et de Sorgho (FNPSMS, France), Conservation Agriculture Association (APOSOLO, Portugal). Organisations expressing support for this letter after it was sent will be listed on the [PRRI website](#).

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