

Florence POIRIER
Proteomic Researcher
Ph.D. in biochemistry
Université Paris 13
LBPS/CSPBAT
UMR CNRS 7244
Tel: 01 48 38 73 13
Florence.poirier@univ-paris13.fr

October 15, 2012

To whom it may concern

The purpose of this letter is to give my full support to Professor G-E. Séralini (University of Caen, France) and his research team on their recent publication “Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize”.

The design of the study reported in the publication shows that animal experiments were performed according to protocols corresponding to the best professional standards. Interestingly, for the first time, GMO toxicological studies were performed during the entire lifespan of rats, and researchers explored more biological parameters than recommended in standard guideline. It is why Professor Séralini’s paper is actually the more detailed long-term rat feeding study and strongly contributes to a better knowledge of chronic health effects of GM plants and herbicides.

From my point of view, this work is a major contribution to the scientific literature on the toxicity evaluation of herbicides and GMOs. Results clearly demonstrate the necessity of independent long-term toxicological studies for GMOs and chemicals, and question the reliability of previous data from 90-day rat-feeding studies concluding to the safety of these products.

Florence POIRIER



Dear Prof. Seralini,

I am writing in support of your recently published research entitled *Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize*. Thank you and your colleagues for conducting this independent and longer term research as human lives are truly at stake over the issue of GMO safety. Please do not be deterred by false critiques from bureaucrats and lobbyists. Your work is too important to be silenced.

Sincerely,

Mark Polle, M.D.
Ontario, Canada

POULLY
Jean-Christophe
CIMAP/GANIL laboratory
Bd Henri Becquerel
BP 55027 - 14076 CAEN Cedex 05
France

To the Editor-in-Chief of "Food and Chemical Toxicology"

Caen, October 20th 2012

Dear A. Wallace Hayces,

I am a researcher working in the field of molecular physical chemistry, and a teacher in Physics at the University of Caen. I do not know Gilles-Eric Séralini and his colleagues, but I am interested in their work, because I feel concerned about the possible effects of a massive use of pesticides and GMOs in agriculture worldwide.

My field of expertise is far from that of the group of Professor Séralini, therefore I am not able to judge the quality of their study you published recently (Volume 50, Issue 11, November 2012, Pages 4221-4231). However, I published papers in peer-reviewed journals as well, and I would not accept that some other scientists dare writing to the editor in order to obtain the retraction of my paper, without going through the peer-review system. Besides, these pressures are dangerous for the independence of editorial decision making.

For these reasons, as a scientific researcher, I give all my support to Gilles-Eric Séralini's group and to your journal, that published online a consistent statement about this study.

Best regards,

Jean-Christophe Pouly

Support to G E Seralini.

I am Pierre Sartor, retired biologist and strongly concerned by biotechnologies and patents on living organisms.

Results from G E Seralini were needed to understand more deeply what we are doing on mid and long term when we modify the usual functionality of cell biology.

My first surprise is that, as Seralini's results are published in the same scientific review than those of Hammond et al (2006) who aimed to demonstrate that GMO corn from Monsanto ("was "as safe and nutritious as grain from existing commercial corn varieties"), scientific seriousness of the journal is not to be questioned. So, the only reason for such a reaction is that G E Seralini has put forward serious reasons to suspect GMO dangers. No scientific arguments, only lobbies to protect incomes even with dangerous products.

My second reason is that, as a biologist, I am aware of the fact that biology is pure interaction. So, put a molecule in a cell, but don't describe the presumed effect without waiting enough. So much interactions can occur which are not in the field you can master.

IT is why my concern is to denounce patenting on living beings.

I have written a book to demonstrate that biotechnological lobbies have imposed live patenting to Europe(2004). It will be published within few days ("Hold-up sur le vivant- Le bal des smenteurs". Edition "Sang de la Terre".).

Same interest, same struggle,

Dr. Pierre Sartor

Couven-Gymnasium, Lütticher Straße 111a, 52074 Aachen

Holger Schmid, PhD
Lütticher Straße 111a
52074 Aachen
post@holgerschmid.com
Germany

October 17, 2012

To whom it may concern

The purpose of this letter is to give my strongest support to G. E. Seralini, professor at the University of Caen, France.

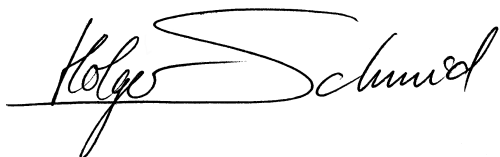
As a former researcher in the field of Bioengineering I follow the current developments in Genetical Engineering.

I am aware that professor Seralini has achieved comparative studies which roused up considerable recent interest. To the best of my knowledge, these investigations have been designed and analyzed according to the best professional standards, and should be considered as such.

An interesting point is due to the fact that these comparative studies have been made over relatively long periods of time. It is known to experimenters that comparative studies achieved during relatively short periods are not appropriate to detect long range toxic effects.

The particular case of tumor development falls into this class, and it is no surprise that existing studies focussed on short periods did not find significant differences with respect to this factor.

I consider that professor Seralini has provided some very strong evidence to support the existence of some unexpected toxic effects of products considered previously as safe. Obviously there will be people to question these results, since they are likely to have important industrial consequences. This should be done via further experimentation, since there is no question about the seriousness and reliability of professor Seralini's conclusions.

A handwritten signature in black ink that reads "Holger Schmid". The signature is written in a cursive style with a large, sweeping initial "H" and "S".

Holger Schmid, PhD

Dear esteemed colleagues at CRIIGEN,

May I add my voice of concern about the due academic process with respect to research findings on work to determine whether genetic modification of certain plant material developed by Monsanto or others gives rise to a risk of ill health in animals (or humans) fed the plant material?

I personally support Professor Seralini's request for all industry sponsored research data to be placed in the public domain and for the precautionary principle to be applied until further publicly-funded research is conducted to see if his findings are replicable or not.

Until such time I urge caution in licensing or wider spread in the European context of these strains.

With all good wishes for you in your difficult position.

David Somervell, Sustainability Adviser, The University of Edinburgh

David.Somervell@ed.ac.uk 07743 759 528 www.ed.ac.uk/sustainability

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TO whom it may concern

I have been very impressed with the excellent recent work of Seralini and colleagues, who have successfully published independent research concerning an issue of the utmost public concern - public health implications of widespread chemical use in the food chain.

Therefore it is dismaying to hear that the esteemed Seralini and his colleagues may not be being treated with the respect and esteem that they deserve.

Please support your outstanding scientists in a matter which has serious implications for the common good of humanity.

Sincerely
Oliver Springate-Baginski

Dr. Oliver Springate-Baginski
Lecturer
School of International Development, University of East Anglia
Norwich Research Park, Norwich NR4 7TJ, UK
Tel +44 (0)1603 592410 / Fax +44 (0)1603 451999
www.uea.ac.uk/dev/springate-baginski

CRED - Cognitive Research and Enaction Design

Université de Technologie de Compiègne,
BP 60319, COMPIEGNE cedex
France.

Paris,
October 21, 2012.

John Stewart
CNRS (retired).
Email : js4a271@gmail.com

To whom it may concern

I hereby wish to express my wholehearted support for Professor G. E. Séralini, who works at the University of Caen, France ; and to protest against the nature of the attacks to which he has been subject on the part of colleagues who, unfortunately, have vested interests in the question of Genetic Engineering which are incompatible with ethical academic discourse.

Geneticist and biologist by my initial training, in the course of my scientific career over 50 years I have also developed a serious interest in the sociology of science. I have in particular studied in depth the question of genetic engineering. It is healthy that there should be public scientific debate on the consequences of genetic engineering, in terms both of social consequences and of public health-related issues. It is unhealthy that this debate should consist of one-sided judgements by persons with vested interests, who are seeking to discredit the work of Professor Séralini.

The work of Professor Séralini has been published in high-quality journals, after double-blind evaluation. This work has provided some strong evidence that there exist some unexpected toxic effects of products considered previously as safe. Ironically, the work that deserves the most severe scientific criticism is that of the authors who are now attacking Professor Séralini: their studies concluded that certain Genetically Modified Organisms (GMOs) were “innocuous” after trial periods of only 90 days. This period is too short to justify serious conclusions; a period of at least two years would be necessary.

I consider that the current debate on this question should contain the following elements:

- the financing of serious new studies, independent of any conflict of interest, over a period much longer than 90 days, to examine the validity of the results reported by Professor Séralini;
- Pending the results of these studies, the “principle of precaution” requires that there be a moratorium on the use of the GMOs in question.

Yours sincerely,

John Stewart

To whom it may concern,

As a scientist, I have followed the research on GM crops for many years, and am impressed by the amount of serious evidence on toxicity of certain of these products. On the work of Dr Seralini in particular, I have no doubt that it was properly conducted according to scientific protocols. I would suggest that much of the work by those promoting this technology made the error of concerning too short a time period, since some of the negative effects, particularly cancer, take more time to develop.

Yours sincerely,

Dr Roger B. Taylor, PhD. BVSc.,
The Mu, Brook Lane, Albury, Guildford, GU5 9DH, UK

Message de soutien à Gilles-Eric Seralini de Jacques Testart

Les attaques récemment formulées contre Gilles-Eric Seralini par un groupe de personnes favorables aux plantes transgéniques sont non crédibles et intolérables. Je connais ce chercheur depuis 15 ans et souhaite témoigner de sa rigueur comme de sa ténacité. Il y a longtemps que j'admire sa capacité à résister à l'hostilité de certains confrères experts, en siégeant dans des commissions acquises aux intérêts des industriels, et la tranquille assurance avec laquelle il répond aux invectives par des arguments seulement scientifiques.

C'est pour tenter de rompre avec les incertitudes liées à la toxicité éventuelle des plantes génétiquement modifiées (PGM) que l'équipe de Gilles-Eric Seralini a proposé une analyse originale parce-qu'elle porte sur la totalité de la durée de vie des animaux (« Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize ». Food and Chemical Toxicology, Seralini G.E. et al. 2012).

Comment les scientifiques qui critiquent ce travail peuvent-ils dans le même temps avaliser les résultats non vérifiés des industriels, en mettant en péril la santé humaine et l'environnement ? Pourquoi ce qui est bon pour ruiner l'alerte serait-il inutile quand il s'agit d'autoriser le risque ? Les travaux de l'équipe de GE Seralini font figure d'exception. Dans ce développement des plantes transgéniques, imposées aux populations, la science est bien souvent le parent pauvre d'une argumentation basée surtout sur la promesse et soutenue par d'énormes intérêts marchands. Il est inadmissible que des scientifiques se prêtent sans esprit critique à ces simulacres de progrès, et utilisent l'injure pour réduire les rares chercheurs qui cherchent la vérité.

Paris, le 30/09/12

Jacques Testart,

Agronome et biologiste, docteur es sciences

Pionnier de la procréation médicalement assistée,

Co-auteur du rapport « des quatre sages » (« *Plantes transgéniques : l'expérimentation est-elle acceptable ?* » La Documentation française, 2003)

Auteur de plus de 300 articles dans la presse scientifique internationale et d'ouvrages de vulgarisation et de réflexion Directeur de recherches honoraire à l'Inserm

Message to support Gilles-Eric Seralini

From Jacques Testart

An unbearable and unacceptable campaign led by a group of activists supporting GMO has been launched against Gilles-Eric Seralini. I met Seralini 15 years ago and I know he is a very determined and principled scientist. He has a remarkable capacity to stand strongly but calmly against the hostility of his peers, using only scientific arguments to respond to insults, in particular when he confronts these ones in expert committees sold to the industry interests.

In the last study that Seralini and his research team have published, they use an innovative scientific approach in order to try to lift the uncertainty about GMO toxicity. In this new approach, the study covers laboratory animals lifetime (see article « Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize ». Food and Chemical Toxicology, Séralini G.E. et al. 2012)

Séralini's methodological choice is harshly criticised by many researchers. The problem is that these researchers endorse without questioning them the unchecked results of scientific studies released by the GMO industry, even if it may put at risk human health and environment. Why do these ones choose risk against safety when it comes to compare 2 scientific methodologies ?

Seralini's team work is really original. What is going on currently has nothing to do with a scientific debate. In the GMO business, huge financial interests are at stake. People are compelled to accept this technology on the basis of dubious promises. Thus it is unacceptable that some scientists endorse what is in reality fake science or technoscience, giving up any critical mind. It is even more unacceptable that they contribute to destroy the reputation of the few of their peers that try to act as honest scientists whose final objective is to look for the truth.

(translated by Christophe Morvan)

Paris, 30/09/12

Jacques Testart, PHD

Agronomist, biologist

Pioneer in medically assisted reproduction

One of the 4 wise men in charge of writing a report on GMO for the French government

(« *Plantes transgéniques : l'expérimentation est-elle acceptable ?* » La Documentation française, 2003)

Writer (more than 300 articles and books on scientific matters)

Former research director at INSERM

To the Editor

Food and Chemical Toxicology

Dear Sir,

I am writing to support your decision to publish the paper written by Seralini and co-workers on Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize.

Since we are aware of severe obstacles to perform independent risk research, we want to emphasize the importance of data published by the French researchers. There are several examples showing companies can block access to research material or ask the scientists to sign treaties not to publish anything that is not agreed with the company. There are some cases showing indeed that researchers were not able to publish due to intervention by industry. In addition, scientists who publish studies finding adverse environmental effects are frequently vehemently attacked by other pro-GM scientists (see Bardoszcz et al., 2012).

So for us it is of great importance that these results were published after a peer review process. Those question that are discussed right now should have been answered before the first genetically engineered crop was authorised. So far authorities involved in risk assessment of genetically engineered plants do not request feeding studies with genetically engineered plants. Most studies provided by industry only cover a period of time of three months. Thus the data now published are of very high relevance and contribute to a very much needed public and scientific debate.

We expect the publication of the data will raise a substantial debate about current standards of risk assessment and hope it will lead to similar studies, so in future we will know more about the risks and safety of genetically engineered plants and safety of consumers is increased.

Yours sincerely,

Christoph Then, Executive Director of Testbiotech (www.testbiotech.org)

Bardoszcz S., Clark A., Ewen S., Hansen M., Heinemann J., Latham J., Pusztai A., David Schubert D., Wilson A., (2012), Seralini and Science: an Open Letter, Independent Science News, <http://independentsciencenews.org/health/seralini-and-science-nk603-rat-study-roundup/>

Séralini, G-E., E. Clair, R. Mesnage, S. Gress, N. Defarge, M. Malatesta, D. Hennequin, J. Spiroux de Vendômois. 2012, Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize, *Food Chem. Toxicol.*, <http://dx.doi.org/10.1016/j.fct.2012.08.005>



Via Luca Ghini, 5 I – 56126 Pisa
Tel. +39 050 2211305
Fax +39 050 2211309

Pisa, Italy, 17 October 2012

To whom it may concern

The purpose of this letter is to give my strongest support to G. E. Seralini, professor at the University of Caen, France.

To the best of my knowledge, the investigations of Prof. Seralini have been designed and analyzed according to the best professional standards, and should be considered as such.

The main interesting point is due to the fact that the studies have been made over relatively long periods of time in order to detect long range toxic effects.

I consider that professor Seralini has provided some very strong evidence to support the existence of some unexpected toxic effects of products considered previously as safe.

Obviously there will be people to question these results, since they are likely to have important industrial consequences.

This should be done via further experimentation, since there is no question about the seriousness and reliability of professor Seralini's conclusions

Maria Angela Vigotti

(Epidemiologist- Senior University researcher)

Dr. Maria Angela Vigotti
Dip. di Biologia -Università' di Pisa
Sezione di Genetica, Mutagenesi ed Epidemiologia Ambientale
Via Derna n.1 -56126-Pisa -Italia
tel- 050 211352
e.mail: mavigotti@biologia.unipi.it

Dear Editor,

This letter is to express my support for Dr. Seralini outstanding research threatened by the Agribusiness lobby. Science should remain distant from corporate interests and that is becoming more and more difficult in these days of corrupt science paid by corporations to manufacture doubts.

I want to give all my support to Dr. Seralini's courageous effort to study yet unknown effects of GMO and pesticides .

With great respect and appreciation for Prof. Seralini's work.

Dr. Josette Wier
4259 McCabe Rd
Smithers, BC
V0J 2N7
Tel: 250 8478743

Dear editor of Food and Chemical Toxicology in charge of the publication of the study of Professor Gilles-Eric Séralini, profesor of molecular biology al Caen University in France.

The debate on the putative risks of genetically engineered plants (PGMs, GMOs) has unfortunately not often been based on the discussion of extant experimental data but is still limited to a fight of pro's and con's.

One of the main reasons for this behavior is the lack of an acceptable protocol of risk assessment by public Agencies like EFSA. Particularly according to the guidelines, GMOs rat feeding experiments are only carried out for 90 days, rats are fed with plants treated with glyphosate and not the complete Roundup to which not only glyphosate but a number of adjuvants are added, and very few putative physiological or anatomical induced modifications are screened.

The paper by Seralini et al., should be considered the first successful turning point liable to drastically change the everlasting discussion on GMOs liability. as it offers a new holistic vision of the differences between treated and no treated rats in the sense that not only survival as such but also numbers of tumors, anatomic, metabolic, physiological, and functional problems have been screened together and all showed very clear differences between treated and control rats.

Moreover the experiments have been carried out for two years taking so into account not only toxic effects but also long time putative negative effects of GMO and commercial roundup feeding. My opinion is that Prof. Seralini's group work is an extraordinary breakthrough in GMOs risk assessment and may offer a relevant tool for the due change in the protocols of risk assessment agencies

Sincerely,

Universidad Nacional Autonoma de Mexico

Dra. Elena Yarowsky Bauman

Medico Cirujano

Ced. Prof. 94320 S.S.A.23727

Campos Eliseos 400-601
Col. Polanco, C.P. 11560
México, D.F.

To whom it may concern

As a Medical Doctor, Certified in Pediatrics at the University of Florence, I want to express my strongest support to **G. E. Seralini**, professor at the University of Caen, France, and his team, for the study published on 19 September 2012, which calls into question protocols used to assess GMOs and pesticides as well as the workings of the expert committees over the past 20 years. To the best of my knowledge, these investigations have been made over relatively long periods of time, and designed and analyzed according to the best professional standards, and should be considered as such. On the contrary, results achieved during relatively short periods are not appropriate to detect long range toxic effects. The particular case of tumor development falls into this class, and it is no surprise that existing studies focussed on short periods did not find significant differences with respect to this factor. I consider that professor Seralini and his team have provided some very strong evidence to support the existence of some unexpected toxic effects of products considered previously as safe. Obviously further experimentation will be necessary, but the precautionary principle impose to take into account these results immediately, in spite of their industrial consequences, since health is a much higher value.

Best regards

Dr. Ernesto Burgio
President of ISDE Scientific Committee
(International Society of Doctor's for Environment)

To whom it may concern

The purpose of this letter is to give my strongest support to G. E. Seralini, professor at the University of Caen, France.

I am aware that professor Seralini has achieved comparative studies which roused up considerable recent interest. To the best of my knowledge, these investigations have been designed and analyzed according to the best professional standards, and should be considered as such.

An interesting point is due to the fact that these comparative studies have been made over relatively long periods of time. It is known to experimenters that comparative studies achieved during relatively short periods are not appropriate to detect long range toxic effects. The particular case of tumor development falls into this class, and it is no surprise that existing studies focussed on short periods did not find significant differences with respect to this factor.

I consider that professor Seralini has provided some very strong evidence to support the existence of some unexpected toxic effects of products considered previously as safe. Obviously there will be people to question these results, since they are likely to have important industrial consequences. This should be done via further experimentation, since there is no question about the seriousness and reliability of professor Seralini's conclusions.

Jean-Luc Plassat

Molecular Biologist (Engineer)
CNRS/UMR7104
IGBMC 1 rue Laurent Fries
67404 ILLKIRCH (close to Strasbourg)

To whom it may concern

As a Professor of Physics at the University of Florence, I want to express my strongest support to G. E. Seralini, professor at the University of Caen, France, and his team, for the study published on 19 September 2012, which calls into question protocols used to assess GMOs and pesticides as well as the workings of the expert committees over the past 20 years.

To the best of my knowledge, these investigations have been made over relatively long periods of time, and designed and analyzed according to the best professional standards, and should be considered as such. On the contrary, results achieved during relatively short periods are not appropriate to detect long range toxic effects.

The particular case of tumor development falls into this class, and it is no surprise that existing studies focussed on short periods did not find significant differences with respect to this factor.

I consider that professor Seralini and his team have provided some very strong evidence to support the existence of some unexpected toxic effects of products considered previously as safe. Obviously further experimentation will be necessary, but the precautionary principle impose to take into account these results immediately, in spite of their industrial consequences, since health is a much higher value.

Best regards

Prof. Angelo Baracca

Department of Physics

University of Florence, Italy

To the Editor

Food and Chemical Toxicology:

Dear Sir,

I am writing to support your decision to publish a paper of high standard written by Seralini and co-workers. This paper went through a process of peer review, which resulted in the publication.

As far as I could judge they have used perfectly good methods and did not set out to find faults with NK603 maize. I myself published at about a 100 peer-reviewed papers of my own, and refereed at least as many.

The information published by Seralini's team is essential for decision makers, government and risk assessors. Such important information should not be controlled by companies or political interest.

It is the health of future generation at stake here. If the paper will be withdrawn by your paper, noone will risk to repeat the experiments or publish similar studies.

Science should be transparent, independent, just as it is required for the risk assessments of GMOs.

Yours sincerely,

Prof. Habil. Dr. Zsuzsanna Bardocz, DSc

8262 Badacsonztordemic,

Tatay S. u.15.

Hungary

Paris, october 18.

I am quite surprised to learn that the review *Food and Chemical Toxicology* is pressured to withdraw the recent study of Gilles-Eric Séralini's team on the GMO NK 603 and on the Roundup.

I consider the study under attack as interesting and groundbreaking. Even if it rather asks questions than completely answers them, there is not much doubt that it is an essential addition to the existing literature.

This study should be verified, reproduced, and improved but certainly not denied. Those who discover now the weaknesses of such a protocol should remember that the official authorizations of these products were based of even weaker (because shorter) scientific studies.

Patrick Bernard,
Mathematician,
Full professor at ENS Paris.

LSTA

Laboratoire de Statistique Théorique et Appliquée

Tour 15-25, 2^{ème} étage, Université Pierre et Marie Curie
Boîte 185, Université Paris 6 – 4, Place Jussieu, 75252 Paris Cedex 05
Tél./ Fax : Direction 01 44 27 33 51 – Tél. : Secrétariat 01 44 27 85 62
Courriel : paul.deheuvels@upmc.fr

September 24, 2012

Paul Deheuvels
Member of the French Academy of Science
Fellow of the IMS, Member of the ISI
Professor & Chair, L.S.T.A., U.P.M.C.

To whom it may concern

The purpose of this letter is to give my strongest support to G. E. Seralini, professor at the University of Caen, France.

I am aware that professor Seralini has achieved comparative studies which roused up considerable recent interest. To the best of my knowledge, these investigations have been designed and analyzed according to the best professional standards, and should be considered as such.

An interesting point is due to the fact that these comparative studies have been made over relatively long periods of time. It is known to experimenters that comparative studies achieved during relatively short periods are not appropriate to detect long range toxic effects. The particular case of tumor development falls into this class, and it is no surprise that existing studies focussed on short periods did not find significant differences with respect to this factor.

I consider that professor Seralini has provided some very strong evidence to support the existence of some unexpected toxic effects of products considered previously as safe. Obviously there will be people to question these results, since they are likely to have important industrial consequences. This should be done via further experimentation, since there is no question about the seriousness and reliability of professor Seralini's conclusions.

Paul Deheuvels

A handwritten signature in blue ink, reading "P. Deheuvels", with a horizontal line extending to the right from the end of the signature.



UNIVERSITA' DEGLI STUDI DI MILANO
FACOLTA' DI MEDICINA E CHIRURGIA
Dipartimento di Scienze Biomediche e Cliniche

Piergiorgio Duca

Full Professor Medical Statistics and Clinical Epidemiology

Dipartimento di Scienze Biomediche e Cliniche – “Luigi Sacco University Hospital”

Via GB Grassi 74 – 20157 Milano (Italy)

To whom it may concern

The purpose of this letter is to give my strongest support to G. E. Séralini, professor at the University of Caen, France.

I am aware that professor Séralini has achieved comparative studies which roused up considerable recent interest.

An interesting point is due to the fact that these comparative studies have been made over relatively long periods of time and it is known that comparative studies achieved during relatively short periods are not appropriate to detect long range toxic effects. Given that tumors development falls into this class, it is no surprise that existing studies focussed on short periods did not find significant differences with respect to this factor.

Furthermore, the Séralini's study is one of the first really independent on this field, and because of this should be considered with the greatest seriousness and care by the scientific community and by the political and administrative authorities.

Piergiorgio Duca

Milano, 19 Ottobre 2012



**UNIVERSITÉ
DE GENÈVE**

FACULTÉ DE MÉDECINE

Féaille Eric
Professeur Associé

To whom it concerns

Geneva, October 18nd 2012

I hereby would like to express my strongest support to my colleague Gilles-Eric Séralini who is currently professor at the University of Caen France. He signed about fifty scientific manuscripts in international journals and is a recognized expert in the field of toxicology. He recently published results in Food and Chemical Toxicology, an international peer-reviewed journal with a strong impact factor according to the domain of toxicology, showing surprisingly adverse effect of feeding rats with GM maize for a long period of time (two years). I would like to stress that studies performed over long periods of time are sound if you address the question of chronic toxicity of a compound. After careful reading of the article, I am convinced that this study was performed according to best scientific standards and there is absolutely no reason to doubt about the validity of results. This study urgently calls for further studies designed to understand the mechanisms of the observed effects of GM maize and Roundup in order to answer the overarching questions raised by Pr Gilles-Eric Séralini's study.

I would like to stress that big advances in science are almost always obtained by explaining unexpected results. Science should be independent of political or economic interests that are obviously strongly challenged by Pr Gilles-Eric Séralini's study. Controversies are the essence of science and should be solved by scientific studies but not by means reminding the dark times of the holy inquisition. A scientific article cannot be withdrawn unless fraud, plagiarism or duplication is proven.

Pr Eric Feraille, MD-PhD

Centre Médical Universitaire
Département de Physiologie Cellulaire et Métabolisme
1 rue Michel Servet - CH-1211 Genève 4
www.unige.ch/medecine

Ligne directe: 022 379 52 82
Fax : 022 379 52 60
Eric.Feraille@unige.ch

Editor
Food and Chemical Toxicology
Dear Editor

I have carefully read the paper entitled “Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize”. I am very familiar with historical publications on this topic.

A number of criticisms of this paper have appeared in the media. They appeared shockingly quickly which caused me concern because I find it takes more time to properly and thoroughly read a scientific paper of this complexity. Most criticisms were of a general nature and without substance worthy of entering the scientific debate. Some criticisms were specific, referring to the type of rat used, the kind of statistical analysis, and the interpretation of the response to increasing concentrations of the agrichemicals, Roundup, or genetically modified plant ingredient.

I performed a quick review of papers on rat feeding studies using genetically modified feed components also published in this same journal. In addition to the paper by Seralini et al, I found 7 studies between 2004 and now all published in Food and Chemical Toxicology in which Sprague-Dawley rats were fed diets supplemented with material from GM plants. All of these papers were published by those companies who developed the GM plant used in the study. One paper was from Monsanto, and the others from DuPont/Pioneer. None of the papers extended beyond ~90 days.

These studies used approximately the same number of rats as the study by Seralini et al. All of them used the same kind of rat as the Seralini et al study. The 2004 study by Hammond used marginally more rats in the relevant control group, but was in my opinion less powerful statistically because of the inclusion of ‘reference’ control lines that were not fed on the near-isogenic non-GM diet. The power gained by the additional rats (20/sex vs. 10/sex) was offset by the noise introduced by irrelevant variables.

The statistics used in these other studies passed anonymous peer-review. Aside from that, there is no other peer-reviewed evidence that these statistical approaches are either uniquely appropriate nor validated for their use in this kind of study. On those fronts, I find Seralini et al’s statistical analysis equally valid. I would encourage both the scientific community and the regulatory community to engage in an exercise of validation of statistical analyses if this remains an issue of contention.

Where the Seralini et al study has no peer in this group of papers is in its duration. No number of 90 day feeding studies can refute the findings of a long term study when the effects are largely those that appear after 90 days.

Some critics have attempted to disparage the most recent findings by drawing doubt on the nature of the response, pointing out that the severity of the effect did not uniformly increase with dosage. I am aware of a number of toxicological studies that report similar phenomena. For example, Welshons et al (2003) said in their article in Health Perspectives: “Furthermore, receptor-mediated responses can first increase and then decrease as dose increases, contradicting the assumption that dose–response relationships are monotonic.” The effect fits perfectly well with receptor-mediated or saturated effects and within the hypotheses presented by Seralini et al.

While there is always room for more science on any topic, in my opinion the Seralini et al study stands shoulder to shoulder with the best of those published by others on this same issue. Importantly, it explores hypotheses that industry-based authors largely did not and therefore these earlier studies are in no way evidence against the most recent findings. The proper pathway forward is for any uncertainty in the findings to be put to rest through:

1. the establishment of a consensus protocol developed through a transparent and openly peer-reviewed methodology;
2. a definitive study using this protocol to be conducted by industry-independent scientists of appropriate qualifications, such as Seralini et al, with reasonable access for observation by those nominated by the industry and regulatory communities.

In the meantime, it is my view that the recent study is a valuable contribution to the scientific literature, debate and process of evaluating technologies. I trust your journal to publish quality science and you have vindicated my trust.

With kindest regards,

Prof Jack Heinemann
School of Biological Sciences
University of Canterbury
226 von Haast
+64 3 364 2500

Dear Professor Seralini,

I found your latest paper extremely worrying but confirming our worst concerns. Glyphosate and its formulated products should be removed immediately from widespread use which meant abandoning altogether GM crops that depend on these products.

The work of other scientists especially Don Huber show that micro-nutrients, such a manganese, are effectively locked up where glyphosate is extensively used rendering the land a desert incapable of supporting significant yields of any crops that require these trace elements. Glyphosate affects the production of crops and also the consumer whose health is significantly damaged as you have shown.

Responsible scientists must support the complete withdrawal of this chemical in all its forms otherwise unhealthy soils, unhealthy crops, and unhealthy consumers will result. The rapid and growing increase in cancers patients throughout the developed world should give us pause for thought.

I support your work entirely.
with best wishes

Prof. Malcolm Hooper
Emeritus Professor of Medicinal Chemistry University of Sunderland UK

Dear Editor,

Non specialist of the domain but professor and editor in chief of a scientific journal, I think that it is not admissible to question the work of reviewers and editors in chief that peer reviewed the scientific work. Except in cases of plagiarism the published work must not be removed from the journal, if some scientists do not agree with the conclusions of the paper, they have to publish their work in order to support their opinion.

Sincerely,

Pr. Christian La Borderie
Professor of University SIAME/ ISA-BTP
University of Pau, France
SIAME-ISA-BTP UPPA, European Journal of Environmental and Civil Engng
<http://siame.univ-pau.fr>
<http://isabtp.univ-pau.fr>
<http://www.tandf.co.uk/journals/TECE>

Dear editor,

I want to commend you and your journal for your courageous action in publishing a paper that raises question about the safety for humans of either consuming food crops that have been created through techniques known widely as genetic engineering or of consuming products that contain ingredients from such crops. For many people it would be shocking to learn that scientists and editors require courage to speak honestly in democratic nations about matters that should be resolved by scientific procedures. However in recent years, in matters where there are concerns about the profits of agricultural industries, some scientists are willing to discard scientific method and employ bullying tactics to achieve consensus about issues that should be resolved by rigorous experiments. This may work to suppress dissent. Indeed, it is more humane than burning at the stake. However neither bullying nor burning at the stake are reliable methods for discovering truth. Neither bullying nor burning at the stake are rational approaches to resolving disagreements about matters of fact. You are to be commended for your courage. It is regrettable such courage was required.

Sincerely yours,

Hugh Lehman
Professor Emeritus
Department of Philosophy
University of Guelph,
Guelph, Ontario, Canada

To whom it may concern,

I write as a population biologist and ecologist with experience in genetics of populations to protest at the blatant pressure which appears to be being applied to Prof. Seralini to withdraw the published reports on his work on rats which have been fed GM maize for two years.. the work has met the accepted criteria for publication and is an honest account of his work and the pressure for withdrawal is an obvious example of totally unethical behaviour on the part of those who wish to see it withdrawn for commercial reasons.

Prof Amyan Macfadyen, M..A., DSc.

21 Eastgrove Rd.,

Sheffield

S10 2NN - UK

0114 2681148



Università degli Studi di Firenze

DEPARTMENT OF EARTH SCIENCES

I-50121 FLORENCE (ITALY) - Via G. La Pira, 4

VAT code 01279680480

Florence, October 21, 2012

Letter of support to Prof. Seralini's studies

I agree with Professor Paul Dehevels in thinking that Professor Seralini provided very strong evidence sufficient to establish the existence of some unexpected toxic effects from products previously considered safe.

To my knowledge, Professor Seralini's surveys were designed and analyzed in accordance with the best professional standards, and should be appreciated as such.

In faith,

Paul Mazza
Associate Professor

Professor Jean-Michel PANOFF
Biologist

IFR « Interactions Cellules Organismes Environnement » (IFR 146-ICORE)
UR « Aliments, Bioprocédés, Toxicologie, Environnements » (EA 4651)

☎ Office : 33 (0)2 31 56 54 29
☎ Secretariat : 33 (0)2 31 56 56 21
☎ Cellular : 33 (0)6 23 46 95 74
☎ Fax : 33 (0)2 31 56 61 79
📧 jean-michel.panoff@unicaen.fr

Institut de Biologie Fondamentale et Appliquée
Université de Caen Basse-Normandie
Campus 1 – Bâtiment M – RDC
Esplanade de la Paix
14032 Caen cedex
France

Caen, 07 October 2012

Dr. A. W. Hayes
Vision and Strategy
Spherix Consulting and Harvard University
298 South Main Street
Andover
MA 01810
USA

Dear Dr. A.W. Hayes,

The 2nd of August 2012, you have accepted to publish in *Food and Chemical Toxicology* the article of Séralini, G.-E., et al., titled “Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize”.

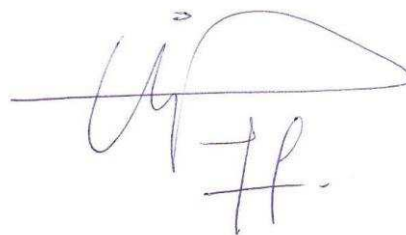
I have read thoroughly this paper and can assert, if necessary, that results obtained by the authors, based on appropriate methodologies, are of momentous interest.

As Professor in a Public University, my opinion does not depend on any kind of lobbying.

By accepting to publish this work, you have proved that it is still possible, in toxicology, to publish scientific results even if they are not in accord with some business projects.

I would like to congratulate you on your independence and your courage.

Sincerely yours,

A handwritten signature in blue ink, appearing to read 'J.M. Panoff', with a large, sweeping flourish above the name.

JMP

Silvain Rafini, PhD

Associate Professor

Researcher for CONSOREM (Consortium for Research on Mineral Exploration)

Department of Applied Sciences

555, boulevard de l'Université

Chicoutimi (Québec), G2H 2B1 CANADA

To whom it may concern,

This letter aims at providing my strongest support to Professor Seralini, University of Caen, France, in the context of the publication of his recent works in the review *Food and Chemical Toxicology* on the subject of GMOs.

Not being a biologist, I have no intention of commenting on the validity of Seralini's results. My aim is rather to express my concern about the intolerable pressures put on the author and the editor following this publication. It is definitely inappropriate that a scientific editor should be pressed in any manner into withdrawing an article that has received peer-review approval. The normal scientific progression is such that published research results are commonly altered over time in subsequent works, or even contradicted. The editor and the peer-reviewing process are dedicated to independently determining a paper's scientific acceptability for publication, not to state on the possible longevity of its conclusions. If some researchers are keen on questioning the results of a published study, all they need to do is to follow the process designed to do so, i.e., submit a "Comment" to the Editor.

Finally, it is questionable, not to say dubious, that researchers should identify themselves so personally and emotionally to their scientific orientations that they intend to defend it like they would a territory. In these days of industrial appropriation of scientific research, the freedom of opinion and expression that is the privilege of scientists should be preserved as an ultimate guarantor against the perversion of science by private concerns.

Silvain Rafini, October 18th, 2012, Montréal.

A handwritten signature in black ink, appearing to read 'S. Rafini', with a long horizontal stroke extending to the left.

Prof. Dr. Dr. h.c. Ernst Ulrich von Weizsäcker
Co-Chair, International Resource Panel

Postfach 1547
79305 Emmendingen
Tel. 07641-9542216
Mobil 0179-2057392
ernst@weizsaecker.de

Weizsäcker Postfach 1547, D-79305 Emmendingen

Oct. 3, 2012

Mr. A. Wallace Hayes,
Editor in Chief, Vision and Strategy, *Food and Environmental Toxicology*
Spherix Consulting and Harvard University
298 South Main Street,
Andover, MA 01810,
USA

Gilles-Eric Seralini et al., Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize.

Dear Sir,

I am learning that the above mentioned paper is meeting with fierce critique. I hear also that most criticisms lack details and thus sound like orchestrated from sources fearing that the results of the paper will cause economic damage to them. Some, however, referred to the type of rat used, to statistical analysis, and to the interpretation of results.

From a number of scientific friends including Professor Jack Heinemann of the University of Canterbury I heard that the alleged counter-evidence is based on experiments done with considerably less scrutiny, with rat strains that are relatively robust against cancer inducing substances. Moreover, the critique, I am learning, comes mostly from scientists working directly or indirectly for the GMO industry including Monsanto.

I admit I am not an expert in the specific field but have served as professor of biology (Essen University), as university president (Kassel University), as Chairman of the Federation of German Scientists, and as Dean of the Bren School of Environmental Sciences and Management at the University of California, Santa Barbara. I maintain strong interest in a free and transparent exchange of scientific findings and fully support your Journal's decision to publish the Seralini paper.

Yours sincerely

