- Nous avions gagné dans un procès perdu par Monsanto pour la transparence des données brutes d'un OGM, le MON863
- Monsanto avait déjà fait et perdu un procès contre l'Etat allemand en attaquant contre la publication des analyses de sang de 40 rats ayant mangé leur OGM !!
- Une anticipation du TTIP ou TAFTA…

Insuffisances scientifiques majeures dans l'évaluation actuelle par les agences et les industriels des risques sur la santé de 19 OGM agricoles

69 000 consultations sur Springer Open
(http://www.springeropen.com/mostviewed/alltime, 09/2012)

Séralini et al. Environmental Sciences Europe 2011, 23:10
http://www.enveurope.com/content/23/1/10

Environmental Sciences Europe
a SpringerOpen Journal

REVIEW Open Access

Genetically modified crops safety assessments: present limits and possible improvements

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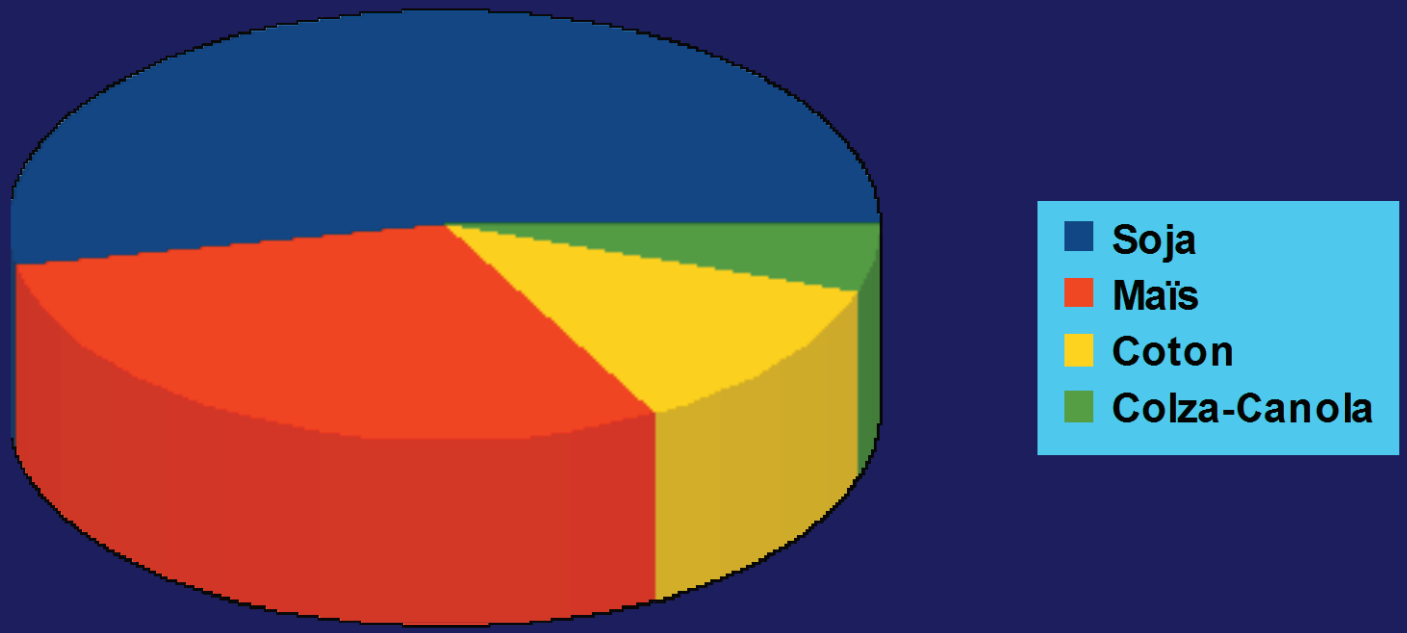
Abstract

Purpose: We reviewed 19 studies of mammals fed with commercialized genetically modified soybean and maize which represent, per trait and plant, more than 80% of all environmental genetically modified organisms (GMOs) cultivated on a large scale, after they were modified to tolerate or produce a pesticide. We have also obtained the raw data of 90-day-long rat tests following court actions or official requests. The data obtained include biochemical

OGM cultivés dans le monde, fin 2013

très faible diversité sur 175 millions ha, soit environ 9,2% de l'agriculture mondiale



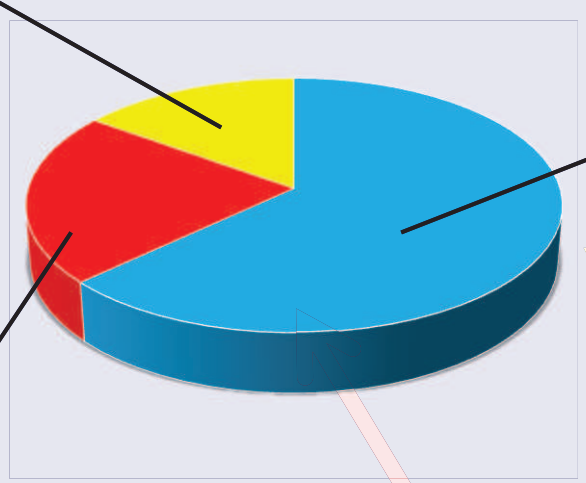
18% agriculture des USA, 95% des OGM comestibles produits en Amérique; 0,05% des cultures en Europe (Espagne 100.000 ha)

Source ISAAA, 2009

100% des plantes OGM cultivées à grande échelle sont des plantes à pesticides

Les plantes OGM sont modifiées pour tolérer un herbicide ou produire leur propre insecticide, ou les deux (ISAAA 2013)

17% produisent leur propre insecticide
Ex: mBt maïs



56,5% sont tolérantes à un herbicide (principalement au Roundup)
Contient donc ses résidus sans mourir
Ex: soja, maïs, colza, coton

26,5% absorbent et produisent des pesticides (2-8 car.)

Quels sont les effets des résidus de ces pesticides sur les cellules humaines et in vivo ?

Paramètres dans 15 études avec OGM	Mesurés par organe (%) / Total (694-698)		Perturbations /organe (%) / Total paramètres perturbés (~ 9%)	
	Femelles	Mâles	Femelles	Mâles
Foie	23,3	23,5	**27,8**	24,6
Rein	24,8	24,9	24,6	**42,0**
Moelle osseuse	32,5	32,7	34,4	30,.0
Total	80,7	81,1	86,9	9,.7

www.criigen.org

Etude de la toxicité à long terme d'un maïs OGM tolérant au Roundup et de l'herbicide Roundup

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Reply to letters to the editor

Answers to critics: Why there is a long term toxicity due to a Roundup-tolerant genetically modified maize and to a Roundup herbicide

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ABSTRACT

Our recent work (Séralini et al., 2012) remains to date the most detailed study involving the life-long consumption of an agricultural genetically modified organism (GMO). This is true especially for NK603 maize for which only a 90-day test for commercial release was previously conducted using the same rat strain (Hammond et al., 2004). It is also the first long term detailed research on mammals exposed to a highly diluted pesticide in its total formulation with adjuvants. This may explain why 75% of our first criticisms arising within a week, among publishing authors, come from plant biologists, some developing patents on GMOs, even if it was a toxicological paper on mammals, and from Monsanto Company who owns both the NK603 GM maize and Roundup herbicide (R). Our study has limits like any one, and here we carefully answer to all criticisms from agencies, consultants and scientists, that were sent to the Editor or to ourselves. At this level, a full debate is biased if the toxicity tests on mammals of NK603 and R obtained by Monsanto Company remain confidential and thus unavailable in an electronic format for the whole scientific community to conduct independent scrutiny of the raw data. In our article, the conclusions of long-term NK603 and Roundup toxicities came from the statistically highly discriminant findings at the biochemical level in treated groups in comparison to controls, because these findings do correspond in an blinded analysis to the pathologies observed in organs, that were in turn linked to the deaths by anatomopathologists. GM NK603 and R cannot be regarded as safe to date.

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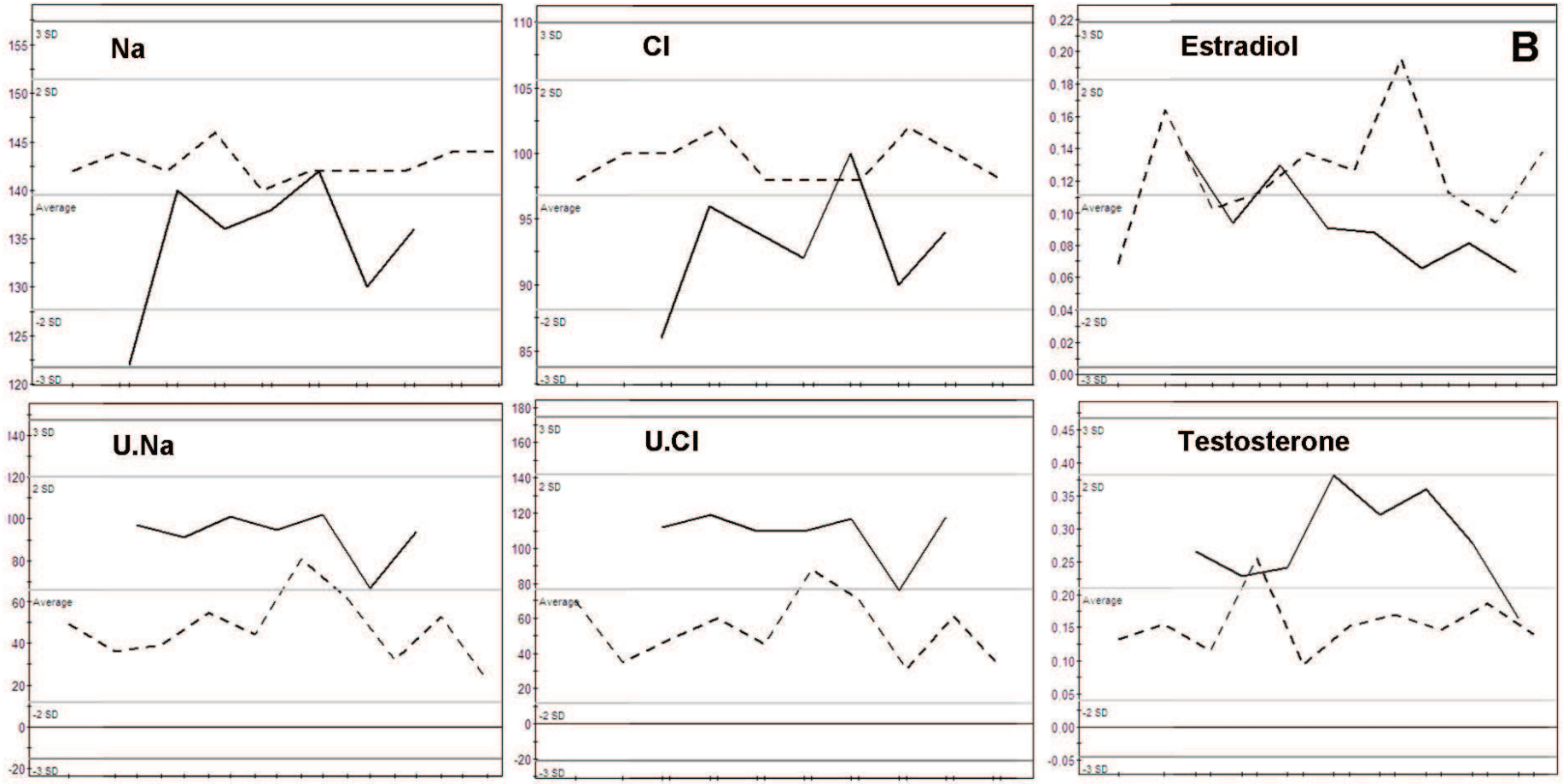
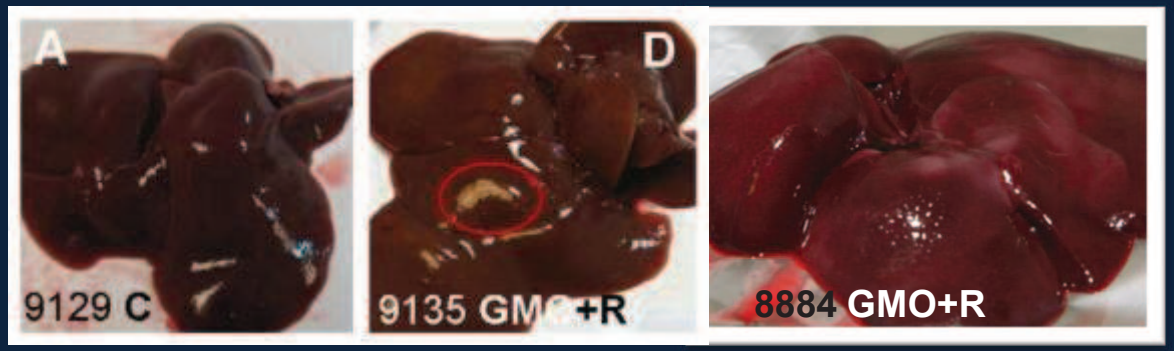


Fig. 5. Orthogonal Partial Least Squares-Discriminant Analysis (OPLS-DA) for biochemical data (females fed 33% GMO versus controls). (A) OPLS-DA regression coefficients for predictive component, with jack-knifed confidence intervals at 99% confidence level, indicate discriminant parameters versus controls at month 15 (Abbreviations: U Urinary, UEx Excreted in urine during 24 h, APPT Activated Partial Thromboplastin Time, MCV Mean Corpuscular Volume, PT Prothrombine Time, RBC Red Blood Cells, ALT ALanine aminoTransferase, MCHC Mean Corpuscular Hemoglobin Concentration, A/G Albumin/Globulin ratio, WBC White Blood Cells, AST aspartate aminotransferase). (B) In this case, detailed examples of significant discriminant variables distribution between females fed 33% GMO (bold line) and controls (dotted line). On *x* axis: animals; on *y* axis: serum or urine biochemical values for Na, Cl, estradiol, testosterone. Profiles evidence kidney ion leakages and sex hormonal imbalance versus controls.

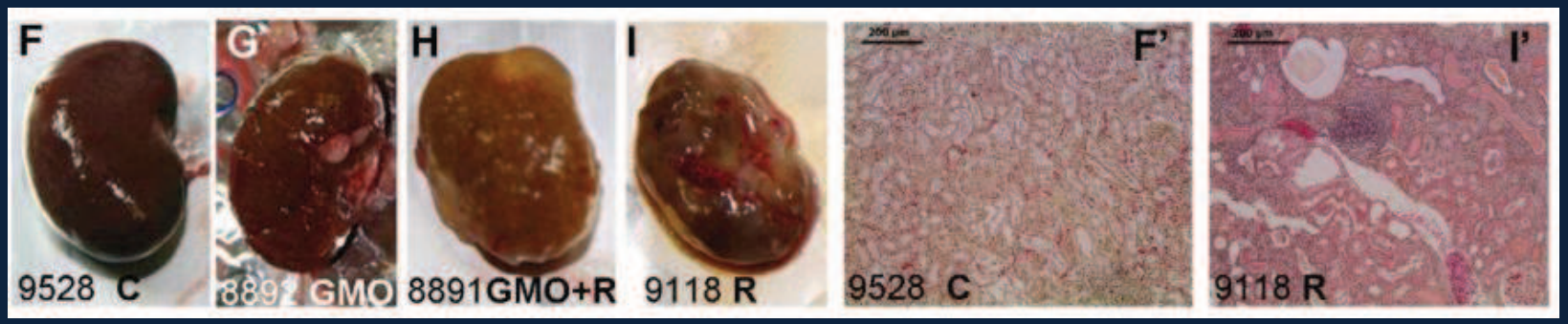
La majorité des mâles sont morts de problèmes hépatiques et rénaux



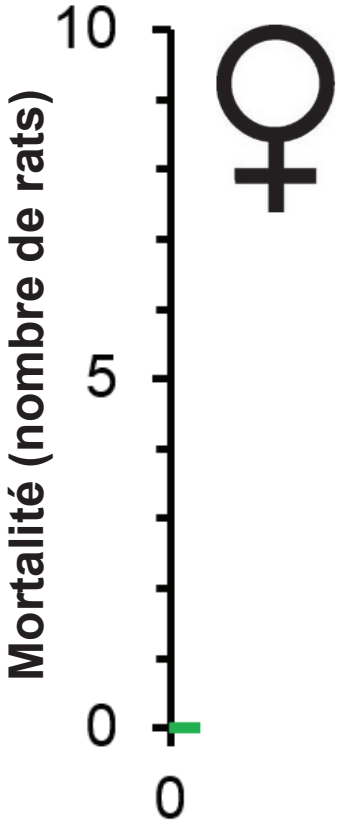
Témoin Traités

Foie : congestions, tâches macroscopiques, foyers nécrotiques

Rein : Nephropathies progressives chroniques plus sévères et précoces que chez les témoins



Les rattes meurent plus rapidement lorsqu'elles consomment des OGM traités au Roundup



Séralini et al. (2012) FCT, 50: 4221 - 4231

Les rats consommant des OGM et/ou traités au Roundup ont eu des tumeurs:

plus rapidement :

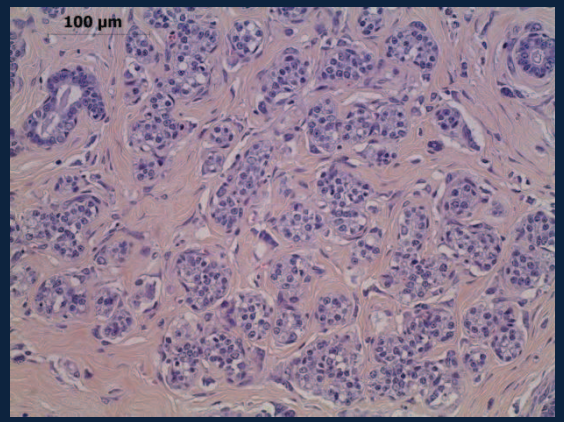
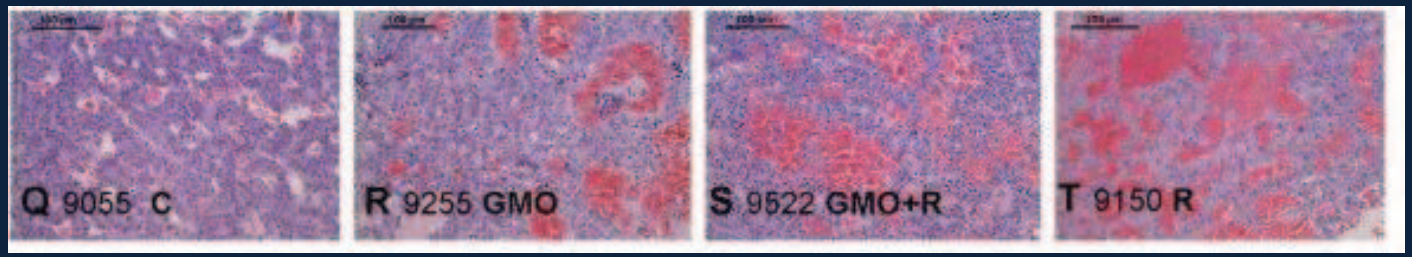
apparaissant jusqu'à 600 jours
avant les témoins chez les mâles (peau, reins),
et en moyenne 94 jours avant chez les femelles
(glandes mammaires),

de manière plus importante :

2-3 fois plus de tumeurs
chez les rats traités des 2 sexes.

Les femelles sont principalement mortes de tumeurs mammaires

93% des tumeurs sont mammaires



…et d'anomalies hypophysaires