Scientific press under corporate influence: the example of the GM maize NK603 study

In September 2012, Gilles-Eric Séralini (GES) and his team published in Food and Chemical Toxicology (FCT) - an important international scientific journal - the longest toxicology study (2 years) ever conducted on genetically modified maize (NK603), as well as on the herbicide Roundup, which this maize is designed to tolerate [1]. These are two Monsanto products. There immediately ensued a smear campaign of a rare violence against Gilles-Eric Séralini, seeking not only to discredit the scientist but also to attack the man personally [2]. The steamroller-like scientific-industrial lobby rolled into action with the express purpose of organising the withdrawal of this published article from the journal, which it is about to obtain, as evinced by a letter dated November 19, sent by FCT to Professor GE Séralini to that effect.

It is crucial to consider the conditions of this withdrawal as it shows the extent of the threat posed to the professional integrity of the scientific press. FCT operates on the basis of peer review (In other words the acceptance of an article for publication is subject to expert peer review). It is a system deemed to guarantee, within the scientific world and beyond, a high level of quality and independence. The article by GES and his team went through this process before publication.

Early in 2013, a particularly disturbing event occurred at FCT with the appointment as associate editor of Mr Richard E. Goodman. He was hired to take charge specifically of the biotechnology section, even though the editorial team of the journal already has an expert on the safety of GM foods in the person of Jose L. Domingo, a professor of toxicology and environmental health. But Mr Goodman's career and achievements speak for themselves. While a professor at the University of Nebraska and a specialist on food allergies, he was also employed at Monsanto from 1997 to 2004, having published scientific papers on behalf of this multinational company. He is also very involved in the activities of the ILSI (International Life Science Institute), a world wide acting lobby group masquerading as an association promoting scientific excellence, funded by the agrochemical and food manufacturing industries engineering or using GMOs [3].

Three days ago the editor-in-chief of FCT contacted GES to inform him - over a year after its publication! – that they would start a retraction process concerning his paper. In his letter, he acknowledges the honesty, sincerity and scientific integrity of Professor Séralini but justifies his decision by the inconclusive results of the study, based on the hackneyed arguments regarding the strain of rat alleged to be inadequate (for being sensitive to cancers) and the insufficient number of rats tested per group. These criticisms and all the other attacks on the study however have already been rebutted in a series of well-argued responses [4] from Professor Séralini and his co-authors - answers that the journal has also published - again in compliance with the expert peer review process. This had in fact generated a reaction from more than 300 international scientists who have addressed FCT to testify and justify their support of this study [5].

The reasons advanced by FCT editor cannot justify the withdrawal of a publication, especially as the journal maintains in its pages previous articles from shorter studies (90 days) produced by Monsanto and performed on exactly the same strain of rat and exactly the same number of animals [6]. These studies led to the approval of maize (NK603) and other GM crops.

It must be stressed that all these attacks on the Séralini study have emanated either from expert agencies that are both judge and jury since they contributed - directly or indirectly - to the approval of the concerned products (NK603 maize and/or Roundup), or experts - often self-appointed - whose links with seeds or pesticides industries are obvious [7]. Moreover, the findings of the agencies were not the result of a series of independent second opinions, but proved to be the result of a concerted action [8].

Once more, this case confirms the power of the GM lobby over the long term. The industry widens its influence and spreads its wings despite some strategic climbdowns. It benefits from our societies' refusal and in particular the unwillingness of the political authorities to deal seriously with conflicts of interest, thus facilitating the development of a collusion between science and industry in defiance of the public interest. The Fondation Sciences Citoyennes is alarmed by this creeping infiltration of the scientific press. It deplores how through weakness or complicity the scientific press undermines its own credibility.

1 Séralini, G.E., Clair, E., Mesnage, R. Gress, S., Defarge, N. Malatesta, M. Hennequin, D. Spiroux de Vendômois, J. (2012) Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize. Food and Chem. Tox. 50:4221-4231

2 http://www.lefigaro.fr/sciences/2013/01/09/01008-20130109ARTFIG00671-ogm-les-liaisons-dangereuses-du-pr-seralini.php

3 http://www.independentsciencenews.org/science-media/the-goodman-affair-monsanto-targets-the-heart-of-science/

4 http://www.criigen.org/SiteFr/images/stories/traduction-r%E9ponses%20aux%20critiques s%26ralini%26al fct2013.pdf

 $\underline{5\ http://www.criigen.org/SiteFr/images/liste-soutienssci-ges\%20\%281\%29.pdf}$

6 Hammond, B., Dudek, R., Lemen, J., Nemeth, M., 2004. Results of a 13 week safety assurance study with rats fed grain from glyphosate tolerant corn. Food Chem Toxicol 42, 1003-1014.

Hammond, B., Lemen, J., Dudek, R., Ward, D., Jiang, C., Nemeth, M., Burns, J., 2006a. Results of a 90-day safety assurance study with rats fed grain from corn rootworm-protected corn. Food Chem Toxicol 44, 147-160.

Hammond, B.G., Dudek, R., Lemen, J.K., Nemeth, M.A., 2006b. Results of a 90-day safety assurance study with rats fed grain from corn borer-protected corn. Food Chem Toxicol 44, 1092-1099.

7 http://blogs.rue89.com/de-interet-conflit/2012/11/12/ogm-la-guerre-secrete-pour-decredibiliser-letude-seralini-228894

 $\underline{8http://www.lyoncapitale.fr/Journal/Lyon/Actualite/Le-mensuel/Etude-Seralini-sur-les-OGM-la-riposte-des-agences-sanitaires-etait-concertee}$