



This is the official transcript of an interview between Christa Orecchio, Clinical Nutritionist from [thewholejourney.com](http://thewholejourney.com) and Professor Seralini, Professor of Molecular Biology at the University of Caen, France.

These are follow up questions asked after Professor Seralini's appearance on Christa's *Food as Medicine* television show, where they discussed his (2-year) study performed on Genetically Modified Organisms and Roundup as they relate to liver and kidney toxicity.

You can watch the interview or read the proceeding blog post [HERE](#).

Note: Please make the exception for grammar/flow where Professor's Seralini's French accent comes through. We did not want to change the tone of what he was trying to convey.

**Christa:** Professor Seralini, you mentioned three defamation cases you won against Monsanto after you published this study in 2012.

*What happened? And what do critics of your study say and how has your study affected your reputation in the scientific community?*

**Prof. Seralini:** They speak always about me, even on my Wikipedia page, in the name of supposedly independent scientists, but in fact we've identified them. They are lobbyists. For instance, the first one who said I'm a fraud was Henry Miller. He said that in the Forbes magazine. A few days after we published our landmark study in 2012. He said that because in fact, they were supposed to be the wrong rats. He didn't say that. Monsanto used the same.

It was important because these rats were supposed to develop tumors naturally, that's what they said. This is why they said my study was not good. In fact, it was not true. We said all the toxic compounds in the food of their rats, and they had so many pollutants, including pesticides, dioxins, PCBs, and other heavy metals, and of course glyphosated GMOs. We demonstrated that their supposedly natural tumors were due to that. Even according to the regulations and the agencies. We had some food devoid of that, for our controls. This is why we demonstrated a specific fact. This is why our study was republished.

In the mean time, some people were following my reputation in order to say that this was wrong, that I wasn't [inaudible 00:01:48], etc. We won three court cases and we even demonstrated in the last one that the president of the commission that was running for the government in



France, in order to authorize GMOs, that he made a fraud signature that was wrong to say that some reputed scientists were against me and it was not true.

They are using all kinds of fraud to try and defame people who find some toxicity with the GMOs or with the pesticides or even with other products. This is well known. They asked some communication agencies, always working in that throughout the world. This is why we cannot really trust these people who speak in the name of the scientific community, the supposed scientific community. They say, "Everything has been demonstrated that GMOs are not toxic", and that is not true at all. They don't even want to give the blood analysis of the rats that they have themselves analyzed in order to get the authorization.

When we have Round Up for instance, which is the major pesticide of the world, we see that they have tested only glyphosate. We have recently demonstrated that there were hidden poisons in the Round Up - a lot more than glyphosate. A lot more toxic than glyphosate. One thousand times more toxic. Even under the toxicity thresholds, a lot more endocrine disorders. We know today that these people are making frauds and that they are in fact sacrificing public health.

**Christa:** Your study has now brought light to the world of, "Hey, these are guilty until proven innocent". It's commonly accepted by the World Health Organization that more studies are needed.

If you had all of the time and funds available to you for research, what would be the next study? What would be THE bulletproof study to really prove this and put it to rest, where proving 100% conclusive that this is completely toxic? Or the study that would make the most progress?

**Prof. Seralini:** Last summer, we've already published two studies showing that the general transcriptome levels ... that means on the genome of the rats, there were some specific disturbances explaining what happened. This was for adult rats. The next idea is to see what happened during pregnancy because I'm very preoccupied by all the malformations that happened. Just close to the transgenic soil or to the GM soil filled with Roundup Ready and spread with Roundup.

For instance, in Argentina but also here in California, you have more and more throughout the world, more diseases in babies that are born with malformations.



**Christa:** Yes and also infertility where you can't even produce a child because of this?

**Prof. Seralini:** Yes there is infertility in the adults or infertility, not only in humans but the ecosystem in general. There are also problems with malformations for babies. They are [inaudible 00:05:24] for their entire life. The brain level, like it is said for the virus Zika but there are a lot of pesticides making the same things. They have malformations at puberty. Problems of sexual hormones. I think the next step is to study that. I was happy to raise funds. I had a Crowd-funding to do my first study, 3.2 million euros. That was unique in the history of science, for a product already commercialized. In fact two products, the GMO and the Roundup. That we studied separately and together.

Now we need around the same amount of money, but because of lobbying we cannot make any other Crowd-funding at the same [inaudible 00:06:17] because they are attacking my reputation all the time.

**Christa:** You have an arsenal of support to protect your reputation.

**Prof. Seralini:** That's why I have written a book with my chef, who is a colleague. We have explained all that. It was an investigation, a criminal investigation, that was made by several journalists around the world, showing how they do in order to defend people, and who are the names. We have cited all the names in the book. It's really a police story explaining how the poisons are put legally in the food.

**Christa:** Have there been any long-term studies on farm animals?

**Prof. Seralini:** I published one last January in 2016 on BT corn. It is also a GMO but it is a [inaudible 00:07:22] category. We should recall that we have two categories of GMOs and only two since 1995. The first one, the major one, 80% of GMOs is dedicated to absorb Roundup and to contain Roundup with [inaudible 00:07:40], transgenic soil, and transgenic corn. They are Roundup Ready seeds. They do contain Roundup residues in the plant and in the food. That goes into our bodies.

The second category is the so-called BT plants. These plants do not absorb the Roundup you are giving them but they do make their own insecticide



because of the genetic modifications. They produce a lot, some micrograms per kilo, of this kind of insecticidal toxin.

We have been the first ones to study that in human cells. I made an investigation on a story that was around the year 2002. The first farmer in the world who has followed his dairy cows, giving them BT corn up to 40% of the diet. The dairy cows began to be sick after a few months when the BT corn reached 40% of the diet. They had some very heavy troubles, at the mucosal levels and also at the kidney levels again. The kidneys are the detoxification organs that are reached when there are toxins or pesticides in the body.

**Christa:** This is after only three months you started to see kidney damage?

**Prof. Seralini:** No, for the rats it was only three months but for the cows it was a bit longer. This was a full five-year study with the farmer. It was veterinary observations. All of that was in the binders of the farmer. We saw that even after two generations of cows, they were bleeding at the mammary level and losing their mammals. The [inaudible 00:09:51] was reached and some of them had some mammary breakthrough. This was really bad. Normally, people do not note that, because they are just eliminated from any kind of farm. He made an observation very unique and we published that in January in an international peer reviewed journal.

**Christa:** Excellent. People often ask, if it's just on the surface and you wash it, will it go away, the herbicide or does it penetrate the entire food? Please speak to that?

**Prof. Seralini:** Of course. The pesticides are designed to enter the food, otherwise, they cannot be pesticides, or they cannot kill the plants, for instance. If Roundup doesn't enter the plant, it cannot kill the plant. The GMOs are modified in order to contain it without being killed. That's the difference. Of course it penetrates the food because it penetrates also then the body and bio-accumulates in our brains, testes, our fat, our liver, kidneys. The proof is, the pregnant mothers, for instance have some glyphosate in their urine just because they eat some genetically modified food. It goes through all the body and makes harms. Not only glyphosate, but also the heated compounds that are also [inaudible 00:11:29] to it that we have demonstrated that to be one thousand times more toxic.



**Christa:** As a toxicologist, last question, what's the future of GMOs? What can we do?

**Prof. Seralini:** I believe in genetic engineering. I think it's a good thing to study genes. As long as you put it in the dish, in the field, in open areas, without having serious health testing, you are a criminal. That's the problem. Genetic engineering is used for bad reasons. Just to make more pesticides used. These companies, like Monsanto, Bayer, or Aventis, for European ones, are just pesticide makers. They invented plants to use more of their pesticides, but they were lying, saying this will use fewer pesticides.

I will tell you a story. Initially, Monsanto said this will diminish others pesticides and the communication agencies will say, "Why do you say others? If it diminishes the other pesticides, it diminished the pesticides. So just say diminished the pesticides." They say that, and do you imagine that the first plant modified in the world, in order to contain the major pesticide of the world, is believed by most of the public because of their fraudulent communication is believed to be a plan that will reduced pesticide use. We are like in the middle ages, believing that the Earth is flat, and that there is a Hell behind. It's not acceptable in a scientific world. Today, there are so many lies in science to make money out of the death and suffering of people, that I am really upset.

**Christa:** It's the darkest side of capitalism that has ever been.

**Prof. Seralini:** They are raising a dark art in order to try to hide what they do. They do not want GMO labeling. If they would be proud of the product, they will label it. This is a sign it is a bad product. A product that you are proud of that has been well tested, which is good, so all the producers make labels on it in order to say what it is. If you want to hide it, that's a bad sign. We should fight against these products that are not labeled. We have a big chance in Europe. All the GMOs are labeled. This is why we do not want so many importations of GMOs from North America. I think it is a sign of a bad quality of food for us. It renders the people sick. When you go outside you see other people are sick because of the food. It's not only because they eat too much. It's because the chemical composition is toxic.

**Christa:** Closing thoughts for our readers?



**Prof. Seralini:** There are solutions. The social solution is to ask for transparency. Asking for labeling is one kind of transparency. The most important transparency is to have the health [inaudible 00:15:08] that they have made in order to get the authorizations. They made some. They are kind of silly or nonscientific test. For instance, there are no tests with Roundup given to rats, except what we have published. Independently of the companies, they give glyphosate alone, so they have less effects, less toxic effects, and they say that, "We have a high acceptable [inaudible 00:15:42]" because they use only the least toxic compound to make the study.

We should say, no, we are in the twenty first century, so give to all medical doctors, to all nutritionists, to all the people concerned by health, to anybody who wants to know, the blood analysis that you have made with any kind of animal that was given GMOs, or Roundup, or another pesticide. We should have the right to have that. We won [inaudible 00:16:17] court in Germany because Monsanto attacked the German state in order to avoid giving that to us. We won't. We had the results and Monsanto has lost the attack they made in that appeal court in Germany in order to hide their tests. That's how we knew we were right. This is why I followed on this two short tests that were only ninety days with rats.

The second solution ... so this transparency costs zero dollars. Zero. It's on the internet already but the companies hide it. We should have that public. It is the law. But the law is not respected. The second thing is we have the toxification solutions for people to use aromas in food.

We can detoxify our bodies with natural organic products. We have a pseudo-mechanism, because we studied that in human cells intoxicated by Roundup, bisphenolate, atrazine, and we were able with the toxifying products from aromas of organic plants to remove the pollutants from the cells.

Then we tested that on rats. It was the first time when we saw that, when you give Roundup to rats in eight days, like they are agriculture workers, by the skin or by the drink, they are sick. They are like [inaudible 00:19:13] at the end of the page. They don't move anymore. Maybe it's a nervous problem, maybe it's a kidney problem, or I think it's both. We have also seen the effect on the heart. Giving this product, we have been able to make them mobile again and to make them urinate again. I think there are ways to detoxify our cells. Not only eating organic all the time, but also using aromas as a secret system.



**Prof. Seralini:** People have to follow along to have the good food.

**Christa:** Yeah, you have to change your diet and lifestyle, but when you do, the human body is incredibly resilient.

**Prof. Seralini:** That's right, but we are so much polluted that we need this kind of new knowledge.