

Open letter to NICE; glyphosate is an antibiotic, as are other herbicides

National Institute for Health and Care Excellence (NICE) guidance on overuse of antibiotics 08/09/2015

Deputy Chief Executive and Health and Social Care Director at Nice, Prof Gillian Leng, said: *“The over-use of antibiotics in the last 30 years has led to microbial resistance, and with so few new antibiotics being developed, this could result in once-treatable infections becoming fatal in years to come. This new draft guideline focuses on interventions to help change people’s behaviour, and reduce antimicrobial resistance. It also aims to increase awareness, to both the public and healthcare professionals, of the overuse and misuse of antibiotics, and the risks this could involve.”*

Four different patents have been filed for glyphosate in the US by Monsanto (and granted)

- As a chelator of heavy metals (used to clean boilers) and a wetting agent in 1961¹
- As a herbicide in 1968²
- As an antibiotic in 2002³
- As an anti-protozoal agent in 2003⁴

There is a recent scientific paper that confirms that most of the herbicides that are in widespread use cause changes in antibiotic susceptibility.

*Sublethal Exposure to Commercial Formulations of the Herbicides Dicamba, 2,4-Dichloro-phenoxyacetic Acid, and Glyphosate Cause Changes in Antibiotic Susceptibility in Escherichia coli and Salmonella enterica serovar Typhimurium.*⁵ Note that all three herbicides alter the antibiotic susceptibility of various microbes.

The authors stress the IMPORTANCE of their findings

Increasingly common chemicals used in agriculture, domestic gardens, and public places can induce a multiple antibiotic resistance phenotype in potential pathogens. The effect occurs upon simultaneous exposure to antibiotics and is faster than the lethal effect of antibiotics. The magnitude of the induced response may undermine antibiotic therapy and substantially increase the probability of spontaneous mutation to higher levels of resistance. The combination of high use of both herbicides and antibiotics in proximity to farm animals and important insects, such as honeybees, might also compromise their therapeutic effects and drive greater use of antibiotics. To address the crisis of antibiotic resistance requires broadening our view of environmental contributors to the evolution of resistance.

The Soil Association’s campaign NOT IN OUR BREAD and the Class Action Lawsuits against Monsanto for claiming it didn’t affect humans and animals

The Soil Association’s campaign against Glyphosate residues in our bread

There are glyphosate residues in our bread (since 1980) and the WHO International Agency for Research into Cancer has declared that glyphosate is probably carcinogenic to humans. The **Soil Association** has launched a campaign aimed at bakers, to encourage them to only source flour from farmers who do not use glyphosate pre-harvest: **NOT IN OUR BREAD.**⁶

¹ <http://www.google.com/patents/US3160632>

² <http://www.google.com/patents/US3455675>

³ <http://www.google.com/patents/US7771736>

⁴ <http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetacgi%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=7771736.PN.&OS=PN/7771736&RS=PN/7771736>

⁵ <http://mbio.asm.org/content/6/2/e00009-15.full.pdf+html>

⁶ <http://www.soilassociation.org/notinourbread>

A Class Action Lawsuit is taken out by Los Angeles County against Monsanto for false advertising⁷
Monsanto has misled everyone, including the German Rapporteur Member State, the European Food Safety Authority and the UK Chemicals Regulation Directorate.

The Class Action Lawsuit taken out by Los Angeles County against Monsanto is for false advertising. Monsanto, on its label, claims that Roundup® doesn't affect humans and pets because they don't have the shikimate (EPSP) pathway which plants have.⁸

It is a false statement. Glyphosate not only affect plants, but humans/animals as well. The pesticides industry and its regulators are ignorant of human physiology. Humans (and animals) absorb nutrients through trillions of microbes in their gut, the human microbiome.⁹ These microbes **do** possess the enzyme pathway that is targeted by Roundup®. It is further stated in the lawsuit that there are many human and animal health problems associated with the disruption of our intestinal microbes.

"Because it kills-off our gut bacteria, glyphosate is linked to stomach and bowel problems, indigestion, ulcers, colitis, gluten intolerance, sleeplessness, lethargy, depression, Crohn's Disease, Celiac Disease, allergies, obesity, diabetes, infertility, liver disease, renal failure, autism, Alzheimer's, endocrine disruption, and the W.H.O. recently announced glyphosate is 'probably carcinogenic'."

The lawsuit was due to be heard on July 10th 2015, but the judge has delayed it until August. A similar lawsuit has been announced by lawyers in New York.¹⁰

Genetically-engineered crops, glyphosate and the deterioration of health in the United States of America. Swanson *et al.*¹¹

I attach the zip file of graphs (JOS images) by courtesy of Dr Nancy Swanson showing the correlations between GM Crops, glyphosate and diseases. The UK Government intends bringing in GM crops.

An Open Letter from America was written to citizens, politicians, and regulators in the UK and the rest of the EU about the warning them not to authorise genetically modified crops.¹²

"Individuals and organisations representing nearly 60 million US citizens – just under 25% of the total adult population – have signed and endorsed the Letter from America which sets out the US experience of GMO food and farming, and warns us not to follow this example.

Extracts: *We are writing as concerned American citizens to share with you our experience of genetically modified (GM) crops and the resulting damage to our agricultural system and adulteration of our food supply. As you consider your options, we'd like to share with you what nearly two decades of GM crops in the United States has brought us. We believe our experience serves as a warning for what will happen in your countries should you follow us down this road.*

Promises broken: *GM crops were released onto the market with a promise that they would consistently increase yields and decrease pesticide use. They have done neither. In fact, according to a recent US government report yields from GM crops can be lower than their non-GM equivalents... GM seeds cannot legally be saved for replanting, which means farmers must buy new seeds each year. Biotech companies control the price of seeds, which cost farmers 3-6 times more than conventional seeds. This, combined with the huge chemical inputs they require, means GM crops have proved more costly to grow than conventional crops. Because of the disproportionate emphasis on GM crops, conventional seed varieties are no longer widely available leaving farmers with less choice and control over what they plant...*

The most widely grown types of GM crops are known as "Roundup® Ready" crops. These crops, mostly corn and soy, have been genetically engineered so that when they are sprayed with the

⁷ <http://www.monsantoclassaction.org/>

⁸ <http://www.examiner.com/article/monsanto-sued-los-angeles-county-for-false-advertising>

⁹ <http://www.nature.com/nature/journal/v500/n7464/abs/nature12506.html>

¹⁰ <http://www.aboutlawsuits.com/roundup-class-action-lawsuit-85070/>

¹¹ http://www.organic-systems.org/journal/92/JOS_Volume-9_Number-2_Nov_2014-Swanson-et-al.pdf

¹² <http://www.theletterfromamerica.org/>

herbicide Roundup® – the active ingredient of which is glyphosate – the weeds die but the crop continues to grow...

This has created a vicious circle. Weeds have become resistant to the herbicide, causing farmers to spray even more. Heavier use of herbicides creates ever more 'superweeds' and even higher herbicide use. A recent review found that between 1996 and 2011, farmers who planted Roundup® Ready crops used 24% more herbicide than non-GMO farmers planting the same crops. If we remain on this trajectory with Roundup® Ready crops we can expect to see herbicide rates increase by 25% each year for the foreseeable future... This pesticide treadmill means that in the last decade in the US at least 14 new glyphosate-resistant weed species have emerged, and over half of US farms are plagued with herbicide-resistant weeds.

Biotech companies, which sell both the GM seeds and the herbicides, have proposed to address this problem with the creation of new crop varieties that will be able to withstand even stronger and more toxic herbicides such as 2,4-D and dicamba. However it is estimated that if these new varieties are approved, this could drive herbicide use up by as much as 50%...

Environmental harm: Studies have shown that the increased herbicide use on Roundup® Ready crops is highly destructive to the natural environment. For example, Roundup® kills milkweeds, which are the key food source for the iconic Monarch butterfly and poses a threat to other important insects such as bees. It is also damaging to soil, killing beneficial organisms that keep it healthy and productive and making essential micronutrients unavailable to the plant.

Without healthy soil, we cannot grow healthy plants.

Human Health: GM ingredients are everywhere in our food chain. It is estimated that 70% of processed foods consumed in the US have been produced using GM ingredients. If products from animals fed GM feed are included, the percentage is significantly higher.

Research shows that Roundup® Ready crops contain many times more glyphosate, and its toxic breakdown product AMPA, than normal crops.

Likewise, traces of the Bt toxin have been found in the blood of mothers and their babies.

GM foods were not subjected to human trials before being released into the food chain and the health impacts of having these substances circulating and accumulating in our bodies are not being studied by any government agency, nor by the companies that produce them.

Studies of animals fed GM foods and/or glyphosate, however, show worrying trends including damage to vital organs like the liver and kidneys, damage to gut tissues and gut flora, immune system disruption, reproductive abnormalities, and even tumors.

These scientific studies point to potentially serious human health problems that could not have been anticipated when our country first embraced GMOs, and yet they continue to be ignored by those who should be protecting us. Instead our regulators rely on outdated studies and other information funded and supplied by biotech companies that, not surprisingly, dismiss all health concerns.

Through our experience we have come to understand that the genetic engineering of food has never really been about public good, or feeding the hungry, or supporting our farmers. Nor is it about consumer choice. Instead it is about private, corporate control of the food system.

Americans are reaping the detrimental impacts of this risky and unproven agricultural technology. EU countries should take note: there are no benefits from GM crops great enough to offset these impacts. Officials who continue to ignore this fact are guilty of a gross dereliction of duty."

David Cameron and Defra buried the letter of warning from America about GM crops

This letter with signatures and endorsements from nearly 60 million US citizens was delivered to Downing Street on 11 November 2014. The Prime Minister was quick to forward it to Defra. An anonymous Civil Servant presumably drafted the reply for Lord de Mauley to sign.¹³ There seems to

¹³ http://beyond-gm.org/wp-content/uploads/2015/01/BGM_Defra-letter_151214.pdf

be some 'disconnect' because at the end of the 2-page letter the Under Secretary of State for Defra said: ***"The UK Government regards safety as paramount and will only agree to the planting of GM crops or the marketing of GM foods if it is clear that people and the environment will not be harmed."***

Why are the Chief Medical Officer, Public Health England, NICE and the Wellcome Foundation similarly protecting the pesticides industry rather than the public?

"Antibiotic-resistant diseases pose an 'apocalyptic' threat to humans." Vets, farmers and GPs were blamed for overuse of antibiotics.¹⁴ In 2013, the Chief Medical Officer told MPs that this issue should be added to the national risk register of civil emergencies. In March 2014 I wrote to inform her that glyphosate had been patented as an antibiotic. When Prof Mark Woolhouse, Professor of Infectious Disease Epidemiology at the University of Edinburgh, and Dr Jeremy Farrar, Director of the Wellcome Trust, published an article in *Nature* on 29/04/2014 about the Intergovernmental Panel on Antimicrobial Resistance¹⁵ I wrote to inform them that glyphosate had been patented as an antibiotic. I received no reply.

The only reply finally came from Dame Sally Davies: ***"Given the detailed regulatory regime for plant protection products, this is the most appropriate place for these issues to be considered."***

She was referring to the German Rapporteur Member State (RMS) German Federal Institute of Risk Assessment (BfR) Renewal Assessment Report (RAR) of glyphosate, together with that from the European Food Safety Authority (EFSA), which would eventually be given to the European Commissioners to decide.

The Scandal of Glyphosate Reassessment in Europe

The BfR legal department claimed that the reassessment was solely done by BfR staff members

On 15/07/2014 Herr König, on behalf of the BfR Justizariat (Legal Department), wrote to Dr Nancy Swanson with regard to her request for information (06/04/2014) about the Renewal Assessment Report (RAR) on glyphosate. Herr König said that the work on the RAR on glyphosate was ***"solely done by the BfR staff members of department no. 6, who are civil servant employees."***

This was not what independent scientists from the Institute of Science in Society discovered

This seems to contradict the findings of Dr Nancy Swanson and Dr Mae Wan Ho of the Institute of Science in Society (I-SIS) after detailed examination of the 15-volume, 3,744- page RAR.¹⁶

"But BfR and its federal agency partners did not actually review the published toxicology studies. Instead they relied on a summary provided to them by the Glyphosate Task Force (GTF). And the GTF consists of Monsanto and a consortium of chemical companies all over Europe, including Syngenta UK and Dow Italy, with an odd one from Taiwan thrown in for good measure (see pp. 9-13 of Vol. 1 of the RAR). Although the BfR added comments here and there, all the assessments of the toxicological studies were from the GTF. Hence Monsanto and other companies who stood to gain from selling glyphosate herbicides were given free rein to pronounce glyphosate effectively even safer than before, hence the increase in ADI..."

Here is the key and surprisingly frank admission from page 435: the BfR used the Glyphosate Task Force data. Hence GTF were able to dismiss papers from independent scientists.

"B.6.5 Long-term toxicity and carcinogenicity (Annex IIA 5.5)

Introduction into this chapter by the RMS The chronic toxicity/carcinogenicity part is mainly based on the extensive descriptions of the available valid studies which were provided by the GTF in its

¹⁴ <http://www.theguardian.com/society/2013/jan/23/antibiotic-resistant-diseases-apocalyptic-threat>

¹⁵ <http://www.nature.com/news/policy-an-intergovernmental-panel-on-antimicrobial-resistance-1.15275>

¹⁶ http://www.i-sis.org.uk/Scandal_of_Glyphosate_Reassessment_in_Europe.php

dossier. It was noted that a different approach was taken in the dossier with regard to the studies in rats and those in mice. In the section compiling the rat studies, all of them were reported in detail, including the four long-term studies that had been reviewed during previous EU evaluation. In the section on studies on the mouse, only the new studies are described whereas for those already known reference to the old DAR (DAR, 1998, ASB2010-10302) was made.

For higher efficiency of the review and for the sake of transparency, the descriptions of methods and study results in the GTF dossier were virtually not amended and even the conclusions were kept as provided. However, each study that is described in detail was commented by RMS. These remarks on bottom of each study description are clearly distinguished from the original submission by a caption and are always written in italics. In addition, redundant parts (in particular the so-called “executive summaries”) have been deleted and the structure of the original submission was significantly changed to make it more transparent and comprehensible. With regard to the “old” studies in mice that were not reported in the GTF dossier once more, at least re-evaluation for quality and reliability was performed by the RMS and the NOAELs/LOAELs were checked. A paragraph on testing of formulations for long-term effects in rats has been included. The overall assessment of chronic toxicity/carcinogenicity of glyphosate by the RMS is provided in Vol. 1

(2.6.5). In chapter B.6.5.3 publications on glyphosate and carcinogenicity are presented. These publications include a number of epidemiology studies which are focused on pesticide exposure and associated health outcomes.”

Institute of Science in Society Special Report on Glyphosate

Glyphosate/Roundup, falsely claimed by Monsanto to be safe and harmless, has become the world’s most widely and pervasively used herbicide, especially with glyphosate tolerant GM crops; it has brought rising tides of birth defects, cancers, fatal kidney disease, sterility, and dozens of other illnesses. Read the devastating evidence & ban glyphosate herbicides from you home and local community.

http://www.i-sis.org.uk/Banishing_Glyphosate.php

I rest my case.

Rosemary Mason 08/09/2015