

Dear Sir

- As a chelator of heavy metals and a wetting agent in 1961¹
- As a herbicide in 1968²
- As an antibiotic in 2002³
- As an anti-protozoal agent in 2003⁴

The World Health Organisation and the Chief Medical Officer for England, Professor Dame Sally Davies, have declared that antibiotic-resistant diseases pose an apocalyptic threat to humans. In 2013 the CMO told Parliament that this issue should be added to the national risk register of civil emergencies. She placed the blame on vets, farmers and GPs for over-use of antibiotics but I informed her that this was a drop in the ocean compared with the massive amounts of glyphosate used globally. Glyphosate is a very powerful antibiotic and those eating foods that are not organic are consuming residues every day in staple foods.

EAAD, held on November 18th each year, is a Europe-wide public health initiative which encourages responsible use of antibiotics. The initiative is supported in England by the Department of Health and its Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infections (ARHAI). Prof Mark Woolhouse (Prof of Infectious Disease Epidemiology, University of Edinburgh) and Dr Jeremy Farrar (Director of the Wellcome Trust) published an article in Nature on 29/04/2014 about an intergovernmental panel on antimicrobial resistance.⁶ They said that “*unregulated sales of medicines in developing countries contribute to the rise in antimicrobial resistance.*” I wrote to inform them that glyphosate was an antibiotic, but as yet I have had no reply.

In 2010 Monsanto wrote: Glyphosate has an “excellent safety profile to operators, the public and the environment.” The corporation had persuaded farmers to spray their crops with glyphosate in order to desiccate (dry) them, about 7-10 days before harvest (and in the case of sugar cane, to assist the ripening process, when glyphosate is sprayed aerially about 6 weeks before harvest.) According to the Defra Expert Committee on Pesticide Residues in Food⁸ there are glyphosate (and other chemical) residues in all our staple foods. Monsanto knew glyphosate was an antibiotic and an antiprotozoal.

⁸ <http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/PRI/PRIF/about-PRIF>

Monsanto Europe asked EFSA to set the import tolerance for glyphosate in lentils “*in order to accommodate the authorised desiccation use of glyphosate in lentils in the US and Canada*” from 0.1 mg/kg to 10 mg/kg⁹ (i.e. 100 times; January 2012). EFSA had granted similarly elevated MRLs for glyphosate on wheat and GM soya.

Zen Honeycutt and Moms Across America and Autism in their children

I understand that your staff had a long meeting recently with Zen Honeycutt representing Moms Across America and two other organisations. They knew that autism in their children was linked to glyphosate use. They had commissioned a study that found that there was glyphosate in breast milk, urine and drinking water.¹⁰ The Costs of Autism Spectrum Disorders in the United Kingdom and the United States was published in the Pediatric section of JAMA.¹¹ “*The cost of supporting an individual with an ASD and intellectual disability during his or her lifespan as \$2.4 million in the United States and £1.5 million (US \$2.2 million) in the United Kingdom. The largest cost components for children were special education services and parental productivity loss.*”

What are you going to do for Moms Across America? According to an Editorial in Nature 12/06/2014, it seems that EPA will carry on as usual,¹² but this time with a blend of herbicides; glyphosate and an old chemical, 2,4-D, but using Dow AgroSciences to monitor the effects. Dow’s 2,4-D: was first used in 1941. The UK Chemical Regulations Directorate currently approves 47 different products for amateur use and 45 for professional use. This is despite the fact that men in Kansas exposed for more than 20 days per year had a 6-fold increase in risks of lymphoma and soft-tissue sarcoma relative to non-farmers.¹³ The earlier findings of links in Swedish studies were confirmed.¹⁴

Is the US EPA using Europe as its Rapporteur Member State?

It would seem so from the statement by by [Dan Goldstein](#), Senior Science Fellow and Lead, Medical Sciences and Outreach, Monsanto on Friday, 12/20/2013: Glyphosate does not accumulate “*It is a common misunderstanding that pesticides, in general, accumulate in body fat. While this phenomenon may occur with some older compounds and a very few compounds currently in use, pesticides that bioaccumulate to any significant degree have been removed from use or are highly restricted to specialized applications needs that limit environmental exposures. Glyphosate is structurally related to the amino acid (protein component) glycine and is readily soluble in water, as demonstrated by the fact that you can buy water-based formulations containing as much as 62% glyphosate salts in agricultural formulations. If ingested, glyphosate is excreted rapidly, does not accumulate in body fat or tissues, and does not undergo metabolism in humans. Rather, it is excreted unchanged in the urine (EU Review Report of the active substance glyphosate, 2002)* http://ec.europa.eu/food/plant/protection/evaluation/existactive/list1_glyphosate_en.pdf

Did you know that the Rapporteur Member State (RMS), Germany, and EFSA are going to recommend re-approval?

We have been looking at some of the reassessment documents. The German RMS has excluded papers on the following topics:

- Evidence of diseases in humans and animals in South America associated with GMO agriculture and Monsanto’s Roundup® Ready Soy; (reproductive problems, birth defects,

⁹ <http://www.efsa.europa.eu/en/efsajournal/pub/2550.htm>

¹⁰ http://www.momsacrossamerica.com/glyphosate_testing_results

¹¹ <http://archpedi.jamanetwork.com/article.aspx?articleid=1879723>

¹² http://www.nature.com/polopoly_fs/1.15382!/menu/main/topColumns/topLeftColumn/pdf/510187a.pdf

¹³ <http://occupationalcancer.ca/wp-content/uploads/2012/05/Hoar-1986-Agricultural-herbicide-use-and-risk-of-lymphoma-and-ST5.pdf>

¹⁴ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1008794/>

DNA changes and cancers).¹⁵ A report of the many types of birth defects in regions of Argentina has also been excluded.¹⁶



A baby with a neural tube defect; this is a meningo-myelocoele. More extensive defects can occur. Hospital de Posadas, Misiones, Argentina. Photograph by kind permission of Dr Graciela Gomez.

- The original paper from Carrasco's Embryology Department in Buenos Aires which described teratogenic effects (neural tube defects) in frog and chick embryos exposed to low dose glyphosate **was** considered.¹⁷ But this is what the RMS said about it: *"Not reliable. Non-guideline study that is not sufficiently described for assessment. Inadequate positive and negative control experiments. Not relevant. Irrelevant routes of exposure and inappropriately high doses. Test system not adequate for human risk assessment."*
- However, a Medical Enquiry has at last been announced in Argentina into the effects on human health of glyphosate in GMO systems of agriculture. The problems were investigated on BBC Radio 4.¹⁸ Prof Andr s Carrasco, who had been a member of Conicet, the Argentinian Scientific Committee, had continually challenged Monsanto and the pesticide regulators. **He would have been a key witness.** However, he died on May 10th 2014 at the age of 67, in the time between his giving evidence to Linda Pressly and when the BBC Radio 4 programme was broadcast on May 14th. These are Roundup® Ready GMO crops that the British Government is trying to force upon an unwilling British public.
- Other papers with evidence of Roundup® and birth defects in humans.¹⁹ In Teratogenic effects of glyphosate-based herbicide: divergence of Regulatory Decisions from Scientific Evidence.²⁰ Prof Michael Antoniou (from the Department of Genetics at King's College London), as lead author, and a multinational team, had managed to obtain a copy of the German DAR. They pointed out that evidence of teratogenicity had been found, but the

¹⁵ Lopez, S.L. *et al* GMO Pesticides Used in South American GMO-Based Agriculture: A Review of Their Effects on Humans and Animal Models. In *Advances in Molecular Toxicology*, Vol. 6, 201 published by Elsevier: ISSN 1872-0854.

¹⁶ <http://www.ncbi.nlm.nih.gov/pubmed/21132229> [Births prevalence of 27 selected congenital anomalies in 7 geographic regions of Argentina]. [Campa a H](#) *et al*. High frequencies regional analysis showed the following significant results: PAM: severe hypospadias; CEN: spina bifida, microtia, cleft lip with cleft palate, polycystic kidney, postaxial polydactyly and Down syndrome; CUY: postaxial polydactyly; NOA: omphalocele, gastroschisis, cleft lip without cleft palate, cleft lip with cleft palate, anorectal atresia/stenosis, indeterminate sex, preaxial polydactyly and pectoral agenesis; PAT: cleft lip without cleft palate.

¹⁷ Paganelli, A. *et al*. Glyphosate-Based Herbicides Produce Teratogenic Effects on Vertebrates by Impairing Retinoic Acid Signaling *Chem. Res. Toxicol.*, 2010, 23 (10), 1586–1595. DOI: 10.1021/tx1001749 <http://pubs.acs.org/doi/abs/10.1021/tx1001749>

¹⁸ <http://www.bbc.co.uk/programmes/b042ldz0>

¹⁹ <http://www.earthopensource.org/files/pdfs/Roundup-and-birth-defects/RoundupandBirthDefectsv5.pdf>

²⁰ Antoniou, M. *et al*. Teratogenic Effects of Glyphosate-Based Herbicides: Divergence of Regulatory Decisions from Scientific Evidence *J Environ Anal Toxicol* 2012, S:4 <http://dx.doi.org/10.4172/2161-0525.S4-006>

German and EU authorities minimized these findings in their assessment and set a potentially unsafe acceptable daily intake (ADI) level for glyphosate.



*Julieta, who died aged 7 months
from multiple abnormalities in 2010
Bandera Santiago del Estero
Photograph by kind permission of
Dr Graciela Gomez*

- Séralini's team performed 24 month feeding studies in rats (GM Roundup® Ready maize, also with Roundup® separately) instead of Monsanto and EFSA's 90 days.²¹ Séralini's team found disturbances of liver and kidney function. Tumours started to grow in males at 4 months (mostly renal) and females (mostly mammary) and there was evidence of endocrine disruption. (Endocrine disruption had already been reported with glyphosate.²²) Séralini was finally granted a right of reply in the FCT: Conclusiveness of toxicity data and double standards.²³
- Any papers in which glyphosate or AMPA was detected in human urine; e.g. samples in Germany²⁴ and in the whole of Europe.²⁵ This means that Monsanto can maintain the claim of no accumulation, which they did in the 2002 EU reassessment. Moms Across America commissioned independent studies and found glyphosate in breast milk, urine and water.²⁶
- All of Prof Monika Krüger's (Leipzig Veterinary Laboratory) findings of glyphosate in animals²⁷ and humans, in sick animals and humans (Dairy cows in Germany had botulism²⁸)

²¹ <http://dx.doi.org/10.1016/j.fct.2012.08.005> Séralini, G-E et al. Long term toxicity of a Roundup® herbicide and a Roundup®-tolerant genetically modified maize. *Food Chem Toxicol.* November 2012, 50: 4221-4231

²² <http://www.ncbi.nlm.nih.gov/pubmed/19539684>

²³ Conclusiveness of toxicity data and double standards <http://dx.doi.org/10.1016/j.fct.2014.04.018>

²⁴ A study has shown the presence of glyphosate in human urine in urban populations in Germany.

<http://www.ithaka-journal.net/herbizide-im-urin?lang=e>

²⁵ <http://www.foeeurope.org/weed-killer-glyphosate-found-human-urine-across-Europe-130613>

²⁶ http://www.momsacrossamerica.com/glyphosate_testing_results

²⁷ Krüger, M. et al. Glyphosate suppresses the antagonistic effect of *Enterococcus* spp. on *Clostridium botulinum*. *Anaerobe* 2013, Feb 6.

²⁸ <http://www.ncbi.nlm.nih.gov/pubmed/22200452> Krüger M et al. Visceral botulism at dairy farms in Schleswig Holstein, Germany: prevalence of *Clostridium botulinum* in feces of cows, in animal feeds, in feces of the farmers, and in house dust.

and dairy cows in Denmark²⁹ which had evidence of liver and kidney dysfunction as well as glyphosate in their urine. There are many, so we provide only a few examples, but you can see this video of a German farmer whose cows had glyphosate in their urine and faeces and died from botulism.³⁰ In a mega dairy in Wales 70 cows died from botulism in May 2014.

- A combined study between the US and Australia from Carman & Vlieger³¹ was a long-term toxicology study on pigs fed a combined genetically modified (GM) soy and GM maize diet. GM-fed females had on average a 25% heavier uterus than non-GM-fed females, a possible indicator of disease that requires further investigation. Also, the level of severe inflammation in stomachs was markedly higher in pigs fed on the GM diet.
- Prof Thomas Bøhn's paper from Norway which found that GM soya is not 'substantially equivalent' to non-GM was ignored.³² This paper describes the nutrient and elemental composition, including residues of herbicides and pesticides, of 31 soy bean batches from Iowa, USA. In a commentary on the paper Bøhn wrote: **"Extreme Levels" of Roundup® in Food Became the Industry Norm:**³³ *"Roundup® Ready GM-soy accumulates residues of glyphosate and aminomethylphosphonic acid (AMPA) and GM soy also differs markedly in nutritional composition compared with soybeans from other agricultural practices. Organic soybean samples also showed a more healthy nutritional profile (e.g. higher in protein and lower in saturated fatty acids) than both industrial conventional and GM soybeans. Lack of data on pesticide residues in major crop plants is a serious gap of knowledge with potential consequences for human and animal health. How is the public to trust a risk assessment system that has overlooked the most obvious risk factor for herbicide tolerant GM crops, i.e. high residue levels of herbicides, for nearly 20 years? If it has been due to lack of understanding, it would be bad. If it is the result of the producer's power to influence the risk assessment system, it would be worse."*
- A paper on breast cancer cell proliferation with very low doses of glyphosate (of the order we found in drinking water in Swansea in August 2013).³⁴



A deformed piglet; Siamese twins. The sow had been fed on GM Soya.

Photograph by kind permission of Ib Borup Pedersen, Denmark.

²⁹ Glyphosate in urine of cows in Denmark; metabolic changes in blood parameters including increased lipid profile marker cholesterol <http://dx.doi.org/10.4172/2161-0525.1000186> This is the first study showing the extent of the exposure to glyphosate of Danish dairy cattle and its impact on different blood parameters.

³⁰ http://www.youtube.com/watch?v=iVjLtG3tn_E

³¹ <http://www.organic-systems.org/journal/81/8106.pdf>

³² <http://www.sciencedirect.com/science/article/pii/S0308814613019201> Compositional differences in soybeans on the market: glyphosate accumulates in Roundup Ready GM soybeans.

³³ <http://www.independentsciencenews.org/news/how-extreme-levels-of-roundup-in-food-became-the-industry-norm/>

³⁴ [Thongprakaisang S, Thiantanawat A, Rangkadilok N, Suriyo T, Satayavivad J. Glyphosate induces human breast cancer cells growth via estrogen receptors. Food Chem Toxicol. 2013, 59C: 129-136. doi: 10.1016/j.fct.2013.05.057 http://www.ncbi.nlm.nih.gov/pubmed/23756170](http://www.ncbi.nlm.nih.gov/pubmed/23756170)

- Laboratory studies which showed that Formulated Roundup® affects cell cycle regulation³⁵ and activates DNA-Response checkpoint.³⁶
- All papers involving testing of formulated chemicals (e.g. Roundup®), (secret ingredients that help the chemicals penetrate the plant) which show far more toxicity than glyphosate alone.³⁷
- Samsel & Seneff's two papers.^{38, 39} I have a copy of a letter sent by Lord de Mauley and the CRD to Lord Hylton which says: *"The review paper by Samsel and Seneff referred to by Dr Mason suggests possible links between exposure to glyphosate and a wide range of human diseases. CRD notes that many of the proposed associations between glyphosate and human disease seem hypothetical rather than being based on convincing evidence to support cause and effect."* Nevertheless the CRD had agreed to submit this paper to Germany, the Rapporteur Member State for glyphosate for its review of the chemical. Earl Howe, the Health Minister sent a similar letter to the Countess of Mar when she sent my document to him.

Why is the US EPA using Europe as its Rapporteur Member State?

Could it be because there are so many papers in the US about glyphosate contamination of air, rainwater and ground water, which, as yet, do not have to be considered in Europe?

Glyphosate is in the air and comes down in rainfall, as well as being in the rivers

Two-thirds to 100% of air and rainfall samples tested in Mississippi and Iowa in 2007–2008 contained glyphosate.⁴⁰ *"This is the first report on the ambient levels of glyphosate, the most widely used herbicide in the United States, and its major degradation product, aminomethylphosphonic acid (AMPA), in air and rain. The concentrations of glyphosate ranged from <0.01 to 9.1 ng/m³ and from <0.1 to 2.5 µg/L in air and rain samples, respectively."*

Who is undertaking the Rapporteur Member States glyphosate assessments?

EFSA denied that it was the German Federal Institute of Risk Assessment (BfR). This is a Committee that has members from Bayer and BASF, both of whom have commercial interests in glyphosate continuance.⁴¹ EFSA refused to say who it was. In that case, why did the BfR Committee give the press release?

In a press release in March 2014, BfR said that glyphosate was no more poisonous than previously assumed although a critical view should be taken of certain co-formulants. This was a rather curious announcement. This was on the basis of evaluation of 150 new studies and an additional 900 studies from the scientific journals. Professor Dr Dr Andreas Hensel President of the Federal Institute of Risk Assessment (BfR) said on behalf of BfR: *These new studies do not suggest that glyphosate has carcinogenic or embryo-damaging properties or that it is toxic to reproduction in test animals.*

³⁵ Marc, J., Mulner-Lorillon, O., Bellé, R. Glyphosate-based pesticides affect cell cycle regulation.

<http://www.ncbi.nlm.nih.gov/pubmed/15182708>

³⁶ Marc, J., Bellé, R. Formulated Glyphosate Activates the DNA-Response Checkpoint of the Cell Cycle Leading to the Prevention of G2/M Transition Toxicological Sciences 2004, 82 (2): 436-442.

<http://toxsci.oxfordjournals.org/content/82/2/436.full.pdf>

³⁷ A further independent paper published in December 2013 showed that: "Roundup® was by far the most toxic among the herbicides and insecticides tested. Most importantly, 8 formulations out of 9 were several hundred times more toxic than their active principle. <http://www.hindawi.com/journals/bmri/aip/179691/>

³⁸ Glyphosate's Suppression of Cytochrome P450 Enzymes and Amino Acid Biosynthesis by the Gut Microbiome: Pathways to Modern Diseases. <http://www.mdpi.com/1099-4300/15/4/1416>

³⁹ Glyphosate, pathways to modern diseases II: Celiac sprue and gluten intolerance.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3945755/>

⁴⁰ Feng-chih Chang, Matt F. Simcik, Paul D. Capel Occurrence and fate of the herbicide glyphosate and its degradate aminomethylphosphonic acid in the atmosphere *Environmental Toxicology and Chemistry* 30, (3), 548–555, March 2011 <http://www.sciencedirect.com/science/article/pii/S0045653513008837>

⁴¹ http://www.bfr.bund.de/en/members_of_bfr_committee_for_pesticides_and_their_residues-53534.html
http://www.bfr.bund.de/en/members_of_bfr_committee_for_pesticides_and_their_residues-189322.html
2014

*The data do not warrant any significant changes in the limit values of the active ingredient... Worldwide, glyphosate is one of the most common active ingredients in pesticides used to prevent unwanted plant growth in plant cultivation or to accelerate the ripening process of crops (desiccation). Glyphosate inhibits an enzyme which is essential for the biosynthesis of certain amino acids. This enzyme is not found in animals and humans.*⁴²

This statement is incorrect: glyphosate poisons humans in the same way it poisons plants

- Humans and animals have exactly the same pathway as in plants; mammals can only absorb nutrition via the bacteria in their gut; the gut microbiome. **The gut microbiome is the collective genome of organisms inhabiting our body.** Glyphosate residues in food disrupt the pathway which involves 5-enolpyruvylshikimate-3-phosphate synthase. Beneficial bacteria are destroyed, causing inflammatory changes in the gut lining, destroying its absorptive capacity in humans and animals, chelating (extracting or grabbing) minerals, depleting micronutrients and interfering with multiple metabolic processes resulting in obesity, type 2 diabetes, autism, dementia, cancers, inflammatory bowel diseases (Ulcerative Colitis and Crohn's disease), celiac disease, hypercholesterolaemia and many other disorders associated with those on a Western diet.⁴³

Chatelier, E.L. *et al.* Richness of human gut microbiome correlates with metabolic markers *Nature* 29 August 2013; 500: 541-550.⁴⁴

"We are facing a global metabolic health crisis provoked by an obesity epidemic." In a multi-author study of obese and non-obese individuals, those with "low bacterial richness in the gut (23% of the population) are characterized by more marked overall adiposity, insulin resistance and dyslipidaemia and a more pronounced inflammatory phenotype when compared with those with high bacterial richness." "Low richness of gut microbiota has been reported in patients with inflammatory bowel disorder". "Also notable diversity differences were observed between the urban US population and rural populations from two developing countries". Current research is underway to try to find the links between obesity, type 2 diabetes and cancers. Diet rapidly and reproducibly alters the human gut microbiome⁴⁵ "Long-term dietary intake influences the structure and activity of the trillions of microorganisms residing in the human gut"... In concert, these results demonstrate that the gut microbiome can rapidly respond to altered diet, potentially facilitating the diversity of human dietary lifestyles.

What is the European Glyphosate Task Force and why did it announce the completion of EFSA's assessment

The European Glyphosate Task Force (GTF) is a consortium of 24 companies joining resources and efforts in order to renew the European glyphosate registration with a joint submission.⁴⁶ The GTF announced that EFSA had completed the assessment⁴⁷ and there was a link to ask key questions.⁴⁸

What else does the European Glyphosate Task Force do?

It played a significant part in persuading the Sri Lankan government to lift its ban on glyphosate.⁴⁹
A European Glyphosate Task Force also has concluded that there is no true link to the kidney disease.

⁴²

http://www.bfr.bund.de/en/press_information/2014/03/glyphosate_no_more_poisonous_than_previously_assumed_although_a_critical_view_should_be_taken_of_certain_co_formulants-188898.html

⁴³ <http://www.mdpi.com/1099-4300/15/4/1416>

⁴⁴ <http://www.nature.com/nature/journal/v500/n7464/abs/nature12506.html>

⁴⁵ <http://www.nature.com/nature/journal/vaop/ncurrent/full/nature12820.html>

⁴⁶ <http://www.glyphosatetaskforce.org/>

⁴⁷ <http://www.prnewswire.co.uk/news-releases/glyphosate-task-force-evaluation-report-for-the-herbicide-glyphosate-is-now-publicly-available-250318711.html>

⁴⁸ <http://www.glyphosate.eu/safety>

⁴⁹ http://www.colombopage.com/archive_14A/May13_1399920230CH.php

“The research study conducted by Dr. Channa Jayasumana of the Rajarata University (Sri Lanka) found that while the weedicide itself is not nephrotoxic, when it combines with hard ground water containing metals such as cadmium and arsenic, either naturally present in the soil or added through fertilizer, glyphosate becomes extremely toxic to the kidney. However, since then the validity of Dr Jayasumana's research had come under question as the manufacturer Monsanto and other agrochemical producers have raised objections to the findings saying that there is no evidence to suggest the conclusion that glyphosate is responsible for Chronic Kidney Disease of unknown aetiology (CKDu).”

“CKDu was first discovered among the rice paddy farmers in the Northern Central Province of Sri Lanka. Over the next two decades, the disease spread rapidly to the other farming areas. The prevalence of the diseases is estimated at 15% affecting a total of 400,000 patients with a death toll of around 20,000.”⁵⁰

There are epidemics of kidney disease (CKDu) in other places apart from Sri Lanka

In the US and Latin America, glyphosate is used to ripen sugar-cane.⁵¹ *“Chemical ripening of sugar cane is an important component to profitable sugar production in the United States as well as other sugarcane industries throughout the world.”* But the price paid for sugar cane to be profitable to the corporations is an alarming increase in renal failure in young male agriculture workers in Louisiana and South America. Louisiana’s death rate per 100,000 from nephritis/kidney disease is 26.34 per 100,000 as compared with a US rate of 14.55.⁵²

Costa Rica has a similar pattern of chronic renal disease.⁵³ In 2005 Cerdas reported that: *“in the north part of the country, in Guanacaste, in the last five years there has been an epidemic of chronic renal failure. The demographic features of patients are very interesting. All are young men, between the ages of 20 and 40 years, with a clinical and pathologic picture of chronic interstitial nephritis. The most interesting feature of these patients is epidemiologic—all of them are long-term sugar-cane workers. A specific study of their work environment is needed to determine what in their daily activities puts them at increased risk for chronic renal failure.”*



This map of Central America shows the number of kidney disease deaths in 2009, as well as the increase in mortality rates over the four-year period from 2005-2009 and has been compiled by the International Consortium of Investigative Journalists.⁵⁴

Areas covered by sugar cane coincide with areas where amphibians have been wiped out

Eleven countries on three continents are affected by CKDu. This includes sugar cane workers in Central America and Louisiana where glyphosate, sprayed by air 6 weeks before harvest, is used to

⁵⁰ http://www.i-sis.org.uk/Sri_Lanka_partially_bans_glyphosate.php

⁵¹ <http://dx.doi.org/10.1614/WS-D-09-00001.1>

⁵² Network Coordinating Council (May 2013) 2012 Annual Report: Quoted in Samsel & Seneff

⁵³ <http://www.nature.com/ki/journal/v68/n97s/full/4496413a.html>

⁵⁴ <http://www.icij.org/project/island-widows>

ripen the sugar cane.⁵⁵ The aerial spraying of glyphosate could also explain the mass extinction of amphibians across Central America from chytrid fungus.⁵⁶

Increases in Acute Kidney Injury (AKI) in the UK

On 28/08/2013 [the National Institute for Health and Care Excellence \(Nice\)](#) said that acute kidney injury (AKI) costs the NHS between £434m and £620m a year – more than it spends on breast, lung and skin cancer combined.⁵⁷ *“Only half of patients with AKI had received 'good' care, with delays in diagnosis due to only a third receiving adequate investigations. ...Between 262,000 and 1 million people admitted to hospital as an emergency in a year will have AKI, of which just under a quarter will die.”*

“EFSA’s Public Consultation on glyphosate is entirely unfit for purpose”⁵⁸

Dr Brian John of GM Free Cymru has tested the EFSA reporting system, found it unacceptable and has complained to the Ombudsman.

“EFSA refused (on the grounds of administrative inconvenience) to accept submissions sent by Email or via PDFs or by post. It insisted that all submissions should be entered via EFSA’s own online electronic template which “forced” comments into predetermined categories, with severe limitations on space.... Before receiving the key consultation documents (15 large PDFs) potential consultees were forced to sign this disclaimer: “By sending the request I acknowledge that EFSA has the right to disregard any comments not related to the risk assessment or received after the deadline set for the selected active substance.”

The BfR Press Release⁵⁹ suggests that risk assessment was limited to studies of toxicity in animals: *“studies do not suggest that glyphosate has carcinogenic or embryo-damaging properties or that it is toxic to reproduction **in test animals**”*

Thus EFSA claims the right to ignore anything that is submitted which lies outside this narrow definition. EFSA and the German Regulatory Authorities appear to have done just that.

Recently, Dr Nancy Swanson wrote an article: Seventeen reasons to ban glyphosate

<http://www.examiner.com/article/seventeen-reasons-to-ban-glyphosate>

This is what independent scientists say about glyphosate:

As opposed to Industry and Government, *Science in Society* Edition 62 reviews some of the damning independent evidence against glyphosate in three articles, which we have sent by recorded delivery.

Glyphosate and Cancer http://www.i-sis.org.uk/Glyphosate_and_Cancer.php

Glyphosate/Roundup® and Male infertility

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

Sri Lanka partially bans glyphosate for deadly kidney disease

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

Further evidence against GMO’s being introduced into the food chain

New research confirms that DNA fragments derived from meals, large enough to carry complete genes, can escape degradation and enter the human circulatory system, and so can RNA, raising serious concerns over new nucleic acids introduced into the human food chain via genetically modified organisms.⁶⁰

⁵⁵ <http://www.nature.com/ki/journal/v68/n97s/full/4496413a.html>

⁵⁶ <http://www.pnas.org/content/103/9/3165.abstract>

⁵⁷ <http://www.theguardian.com/society/2013/aug/28/kidney-care-lives-nice>

⁵⁸ http://sustainablepulse.com/2014/05/26/efsas-public-consultation-glyphosate-entirely-unfit-purpose/#.U5hU6_lDWII

⁵⁹ http://www.bfr.bund.de/en/press_information/2014/03/glyphosate_no_more_poisonous_than_previously_assumed_although_a_critical_view_should_be_taken_of_certain_co_formulants-188898.html

⁶⁰ http://www.i-sis.org.uk/Nucleic_Acid_Invaders_From_Food.php

The US EPA, EFSA, the European Commission and the British Government have put the pesticides industry in charge of human health, agriculture and biodiversity

In an Editorial in Nature 12 June 2014 ⁶¹ A growing problem: “Without careful stewardship, genetically engineered crops will do little to stop the spread of herbicide-resistant weeds.”

With reference to the use of an old herbicide, 2,4-D, a dioxin relative of Agent Orange, the herbicide used for defoliation in Vietnam, the Editorial states: “This is where the EPA comes in. In its draft assessment of the blend of herbicides (glyphosate and 2,4-D) to be used, it calls for the manufacturer – Dow AgroSciences of Indianapolis, Indiana – to monitor the emergence of resistant weeds and report them to the Agency. The EPA will then have the power to impose restrictions on Dow or on the use of the herbicide if it deems this necessary.”

Who is to blame in the UK? A lot lies with Government

In the UK Prof Dave Goulson, the eminent bumblebee researcher, after a year of studying what happens to bees in the countryside, reveals a chemical blitz. ⁶² He found that an ordinary arable field in Sussex is sprayed with pesticides 22 times over a single growing season and wonders how the bees can survive this toxic onslaught. He asks the question: exactly who benefits? *It's hard to escape the conclusion that current farming practices are not designed to benefit farmers, who pay through the nose for expensive pesticides. Nor do they benefit consumers, who are offered expensive, pesticide-drenched food. Nor again the environment, which is continually contaminated with a cocktail of chemicals. It is hard to see how they are arranged for any benefit other than maximising agrochemical company profits.*

Prof Goulson goes on to say: “We used to have a number of state-funded experimental farms in the UK, where crop research was conducted, and there used to be an independent agricultural advisory service. But almost all have been sold off.

One consequence is that Integrated Pest Management research is not funded - instead the agrochemical industry has been allowed to fill the gap. Now, 75% of agronomists who provide advice to farmers work for agrochemical companies. Small wonder that farmers use lots of pesticides!

Conflicts of interest at the European Food Safety Authority erode public confidence⁶³

In 2011 Earth Open Source published an 18-page document: Europe's pesticide and food safety regulators – Who do they work for? ⁶⁴ “Some prominent EFSA regulators have conflicts of interest, holding positions in organisations that are funded by the same companies whose products they are supposed to regulate. This report shows that over a period of many years, influential EFSA managers and regulators have been heavily involved with a US-based organisation called the International Life Sciences Institute (ILSI), which is funded by multinational pesticide, chemical, GM seed, and food companies.” Angelo Moretti resigned in 2011 from EFSA after he had failed to declare conflicts of interest because he had shares in a company that helped companies needing to comply with EU Regulations. “ILSI has also taken control of the environmental risk assessment for GM crops. It has set up a body called the Center for Environmental Risk Assessment (CERA) to “develop and apply sound science to the environmental risk assessment of agricultural biotechnologies”. But Earth Open Source's investigation revealed much more about Moretti and many other regulators. In a paper published in 2012 by the BMJ Publishing Group Ltd further exposure of changes that had weakened legislation and bent the rules towards industry. “EFSA experts involved in assessing the risks of GM foods have attracted criticism. In 2010, 12 out of 21 experts on the GMO Panel...had conflicts of interest as defined by the Organisation for Economic Cooperation and Development (OECD.)” Chair of EFSA's Management Board Diána Bánáti had a longstanding relationship with the industry-funded ILSI. In May 2012 she had to resign from EFSA and re-joined ILSI as Executive Director. Suzy

⁶¹ http://www.nature.com/polopoly_fs/1.15382!/menu/main/topColumns/topLeftColumn/pdf/510187a.pdf

⁶² http://www.theecologist.org/blogs_and_comments/commentators/2258103/revealed_the_chemical_blitz_of_pesticides_in_our_fields.html

⁶³ <http://jech.bmj.com/content/67/9/717>

⁶⁴ http://earthopensource.org/files/pdfs/Europes-pesticide-and-food-safety-regulators/Eu_pesticidefoodsafety.pdf

Renkens Scientific Coordinator of EFSA's GMO Panel was criticised by the European Ombudsman over her failure to deal with conflicts of interest. She left EFSA in 2008 and stepped straight into a job with Syngenta.

Harry Kuiper was Chair of the GMO Panel from 2003 to 2012. He had been at the forefront of the criticism of Dr Arpad Pusztai's paper in 1998 on rats fed GM potatoes which was published in the Lancet.⁶⁵ *"He had been involved in the risk assessment of every GM food submitted to EFSA since the Agency was set up. Throughout his term of office he retained links with ILSI...Even the design of EFSA's GMO risk assessment standards was influenced by an ILSI Task Force headed by a Monsanto employee."*

Stuttgart Peace Prize for Dr Arpad Pusztai in 2009

Dr Arpad Pusztai and his wife Dr Susan Bardocz were awarded the Stuttgart Peace Prize in 2009.⁶⁶

"The award is for their tireless advocacy for independent risk research. Both have made an essential contribution to a broader understanding of the dangers of genetic manipulation. The award also honours their courage and scientific integrity as well as their undaunted insistence on the public's right to know."

In response to the letter of congratulation from Claire Robinson and Jonathan Matthews of GMWatch, Dr Pusztai sent an email reply on 10 August 2008.

"Dear Claire and Jonathan,

I thought that I should write to you on the 10th anniversary of my 150 seconds of TV "fame" and tell you what I think now. It is very appropriate to write to you because you have provided the most comprehensive service to inform people about the shenanigans of the GM biotechnology industry and its advocates.

On this anniversary I have to admit that, unfortunately, not much has changed since 1998. In one of the few sentences I said in my broadcast ten years ago, I asked for a credible GM testing protocol to be established that would be acceptable to the majority of scientists and to people in general. 10 years on we still haven't got one. Instead, in Europe we have an unelected EFSA GMO Panel with no clear responsibility to European consumers, which invariably underwrites the safety of whatever product the GM biotech industry is pushing onto us." ... We must not underestimate the financial and political clout of the GM biotechnology industry. Most of our politicians are committed to the successful introduction of GM foods. We must therefore use all means at our disposal to show people the shallowness of these claims by the industry and the lack of credible science behind them, and then trust to people's good sense, just as in 1998, to see through the falseness of the claims for the safety of untested GM foods.

Let's hope that on the 20th anniversary I shall not have to write another warning letter about the dangers of untested GM foods!

Best wishes to all

Arpad Pusztai"

International Life Sciences Institute (ILSI): Is it a private club for Corporations?

Harry Kuiper left as Chairman of the GMO panel in 2012 because Corporate Europe Observatory, Christoph Then of Testbiotech, CRIIGEN and Earth Open Source had all complained about Conflicts of Interest in EFSA because of Kuiper's links with ILSI.

The current membership of ILSI Europe consists of 61 organisations.⁶⁷ This list represents Global Corporations (including the six Agrochemical Giants) with massive resources that are seeking to control the world's food supply. The Project Team Members consist of 18 members from around the world. Many of the individuals and organisations are names that are familiar from our 3 years of research. There are members from the US EPA and the USDA, from Dow and from the Japanese Mitsui Chemicals Agro. ILSI is an industry organisation based in Washington, DC, USA. It claims to

⁶⁵ <http://download.thelancet.com/pdfs/journals/lancet/PIIS0140673605767088.pdf>

⁶⁶ <http://www.gmwatch.org/latest-listing/1-news-items/11801-pusztai-to-receive-stuttgart-peace-prize->

⁶⁷ <http://www.ilsil.org/Europe/Pages/currentmembers.aspx>

be “a non-profit, worldwide organization whose mission is to provide science that improves human health and well-being and safeguards the environment” and allegedly has charity status.

One of the Project Team Members, Dr Caroline Harris, is also a member of the supposedly independent UK Advisory Committee on Pesticides. She is Corporate Vice-President of *Exponent Inc.*

⁶⁸ She worked for 15 years for the UK Pesticides Safety Directorate (PSD) and will have known Dr Peter Campbell Head of Ecotoxicology in the PSD. Both went through the revolving doors to high positions in Industry. Peter Campbell in 1997 became Head of Ecotoxicology in Syngenta. Dr Harris went straight into *Exponent Inc.*

Dr Helen Thompson defected from Fera in 2013, after having done commissions for Syngenta.⁶⁹ It is these individuals and corporations that control GMO and pesticide authorisation in Europe and with whom the British Government has strong links.⁷⁰ FOI declarations discovered a compromising letter from Owen Paterson to Syngenta Switzerland assuring them of his support against the neonicotinoid ban in Europe.⁷¹

Projects Team overseen by the IUPAC Subcommittee on Crop Protection Chemistry⁷²

The two lists have nine people in common (including Dr Harris). A name on the IUPAC Subcommittee is notably absent from the Project Team. Dr Gijs Kleter from Wageningen University wrote papers with Harry Kuiper in 2002 and 2007. Since 2007 papers about GM Crops for which Kleter was the main author included co-authors Unsworth and Harris.

Current membership of the GMO panel: Has it improved since Harry Kuiper left?

Chairman: Prof Joe Perry: Registered conflicts of interest.⁷³ He retired as a Rothamsted employee in June 2006. Indeed, apart from his name and email address there was little to indicate that he had been there. He seems to have ‘disappeared’ to become ‘Rothamsted’s man in Europe.’ From July 2006 he has been permanently employed on various GMO Committees, until he took over from Harry Kuiper in 2012 as Chairman of the GMO panel.

Prof Perry states at the bottom of Page 2: *In terms of time, over 98% of my working time consists of advisory work as an expert on the GMO panel of EFSA, which is ongoing since 2006. For this I receive only expenses.*”

In 2012 he was lead author in a paper in the Journal of Applied Ecology⁷⁴ “Estimating the effects of Cry1F Bt-maize pollen on non-target Lepidoptera using a mathematical model of exposure.”

“A 14-parameter mathematical model integrating small- and large-scale exposure was used to estimate the larval mortality of hypothetical species with a range of sensitivities, and under a range of simulated mitigation measures consisting of non-Bt maize strips of different widths placed around the field edge” Synthesis and applications. *Mitigation measures of risks of Bt-maize to sensitive larvae of non-target lepidopteran species can be effective, but depend on host-plant densities which are in turn affected by weed-management regimes.”*

If you find this paper difficult to understand, then listen to Prof Perry explaining The Risks of GMOs to a Residential Conference of Christians in Science.⁷⁵ At the beginning of his recorded lecture⁷⁶ he says: “I don’t know anything about the science of GMs.” This becomes very clear as he struggles to

⁶⁸ Dr Caroline Harris is Corporate Vice-President of Exponent. “Exponent, Inc., a research and scientific consultant firm with clients from industry (including crop protection) and government”

⁶⁹ <http://farmwars.info/?p=11565> page 40-41

⁷⁰ Attendees on: <http://tinyurl.com/9jbce4g> Agenda on: <http://tinyurl.com/8ahylza> Summary on: <http://tinyurl.com/92rrajn>

⁷¹ <http://www.guardian.co.uk/environment/interactive/2013/apr/29/environment-secretary-letter-syngenta-insecticide-ban>

⁷² http://www.iupac.org/home/about/members-and-committees/db/division-committee.html?tx_wfqbe_pi1%5Bpublicid%5d=604

⁷³ <http://www.efsa.europa.eu/en/gmo/gmomembers.htm>

⁷⁴ <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2664.2011.02083.x/pdf>

⁷⁵ <http://www.cis.org.uk/conferences/past-conferences/residential-2012/>

⁷⁶ http://www.cis.org.uk/upload/conferences/Residential2012/Joe_Perry.mp3

explain it to a lay audience. If you fast forward to 20:27 min, he then tries to explain the risk to a non-target species of moth. He finally comes up with a recommended distance between a Bt crop and a theoretical Nature Reserve of 30 metres to mitigate the risks to a non-target unknown species of moth.

First Vice-Chairman of the GMO Panel: Dr Gijs A. Kleter, Wageningen University. Dr Kleter is Harry Kuiper's protégé. He is a member of the IUPAC Sub-Committee on Crop Protection Chemistry and is the lead author for a number of publications for which some co-authors appear to be "dummies." It is difficult to find any scientific credentials for John Unsworth, apart from being Project Leader of the Project Team to prepare the Website for ILSI.org. Dr Caroline Harris has a 28-year history of working for industry. She has written 26 papers, eight of which are with Dr Kleter as first author. Some of the papers have 16 authors.

Second Vice-Chairman of the GMO Panel: Prof. Patrick Du Jardin: Gembloux Agro-Bio Tech; Plant Biology Unit; University of Liège; Gembloux, Belgium.

In January 2012 Prof Du Jardin was second author of a paper whose first author, Nancy Podevin an EFSA employee, found a hidden viral gene in GMO crops.⁷⁷ In fact, this paper isn't among Prof du Jardin's selected scientific publications on his Biography for EFSA. Is he anxious to avoid it being discussed? Or has he been threatened by industry? There are at least two independent scientists who have suggested that there are serious questions to be answered about human safety by those in Europe authorising GM.

Jonathan Latham, PhD, Editor of *Independent Science News* has written a Synopsis and he and Allison Wilson have published a pdf.⁷⁸

Synopsis: A scientific paper published in late 2012 shows that US and EU GMO regulators have for many years been inadvertently approving transgenic events containing an unsuspected viral gene. As a result, 54 different transgenic events commercialized internationally contain a substantial segment of the multifunctional Gene VI from Cauliflower Mosaic Virus (CaMV) within them. Among these are some of the most widely grown GMOs, including Roundup® Ready Soybean (40-3-2) and MON810 Maize. The oversight occurred because regulators failed to appreciate that Gene VI overlaps the commonly used CaMV 35S gene regulatory sequence.

The authors of the paper, working for the European Food Safety Authority, concluded that functions of Gene VI were potential sources of harmful consequences. They further concluded that, if expressed, the fragments of Gene VI are substantial enough for them to be functional (Podevin and du Jardin (2012) GM Crops and Food 3: 1-5).

This discovery has multiple ramifications for biotechnology. Foremost, there is the immediate question of GMO safety and whether the 54 events should be recalled, but secondly, the failure implicates regulators and the industry in a circle of mutual incompetence and complacency.

The discovery will also strengthen the argument for GMO labelling: if regulators and industry cannot protect the public then why should they not be allowed to protect themselves?

In Norway, on 24.01.2013 GenØk⁷⁹ published a similar assessment at the request of the Norwegian Directorate for Nature Management.⁸⁰

Examples of GMO Approval without considering environmental consequences

"The UK Competent Authority and Syngenta had applied for placing on the market of a GM, herbicide tolerant (glyphosate) maize GA21 for food and feed uses, import, processing and cultivation." It was adopted by the EFSA on 16 December 2011. Although the EFSA had said that

⁷⁷ Possible consequences of the overlap between the CaMV 35S promoter regions in plant transformation vectors used and the viral gene VI in transgenic plants.

<http://blogg.slu.se/forskarbloggen/files/2013/02/GMcrops2012-Podevin.pdf>

⁷⁸ <http://www.independentsciencenews.org/commentaries/regulators-discover-a-hidden-viral-gene-in-commercial-gmo-crops/>

⁷⁹ GenØk – Centre for Biosafety is a non-commercial foundation located in the research environment at the University of Tromsø and Forskningsparken (the Science Park). GenØk's vision is safer use of biotechnologies.

⁸⁰ <http://genok.com/arkiv/723/>

there were no effects on human or animal health or the environment, in the body of the document, they admitted to the problems of reduction in farmland biodiversity, selection of weed communities and selection of glyphosate-resistant weeds, and destruction of food webs and the ecological functions they provide. Nevertheless, the EFSA approved it, but covered itself by saying "*The magnitude of these potential adverse environmental effects will depend on a series of factors including the specific herbicide and cultivation management applied at farm level, the crop rotation...etc.*" and recommends "case-specific monitoring"

EFSA GMO Panel approved many GM crops on the grounds that they were safe for human health and the environment

This is despite the many papers that show that super weeds are massively destructive to the environment⁸¹ and that over a period of 30 years there has been uncontrolled spread and contamination globally by many Genetically-Engineered (GE) plants which are herbicide resistant.⁸²

Uncontrolled spread of GE crops: Report on the spread of GE Oil Seed Rape⁸³

GE plants have been grown for 30 years and commercially for 20 years. The Report provides a global overview of the uncontrolled escape of GE oil seed rape (OSR) in various regions of the world (US, Canada, Japan, Australia, Switzerland and Germany). In Switzerland where no imports of GE OSR have been allowed since 2008: "*Transgenic OSR was able to survive along rail tracks for long periods because extensive glyphosate spraying of these areas offer them selective advantages.*" In Japan: "*plants that proved to be resistant to glyphosate or glufosinate were found at ports and along transportation routes to industry plants where OSR is processed.*"

Transgene Escape: Global atlas of uncontrolled spread of genetically engineered plants⁸⁴

This report makes several recommendations. Most importantly, measures should be put in place immediately to stop any further uncontrolled spread of genetically engineered plants into the environment as far as possible. Comprehensive regulation should be established to strengthen the Precautionary Principle and the release of genetically engineered organisms should not be allowed if they cannot be retrieved.

Conflicts of interest of Anne Glover CSO to the European Parliament

Professor Glover, in an interview with EurActiv⁸⁵ said: "*There is no substantiated case of any adverse impact on human health, animal health or environmental health, so that's pretty robust evidence, and I would be confident in saying that there is no more risk in eating GMO food than eating conventionally farmed food.*" She said the precautionary principle no longer applies as a result. "*The evidence with which I work is independent; the evidence with which I work does not change according to political philosophy. And that should give people a lot of confidence.*" She is not independent. According to Glover's declaration, as reported by Damerval,⁸⁶ "*Professor Glover is a shareholder in a biotech company and set up the firm Remedios, which was named Scotland's "Best New Biotechnology Company" for Biotech Scotland by its industry peers.*"⁸⁷ *She will be a leading speaker at a conference in Africa to persuade them to grow GM crops. She sits on the board of Science Business, alongside representatives of Microsoft, Sanofi and BP; members include biotechnology companies.*"

Glover said that discomfort around the subject of GM crops in the 1980s and 1990s was "a generation ago, we've moved on and the challenges are completely different." Corinne Lepage MEP

⁸¹ <http://www.enveurope.com/content/24/1/24>

⁸² http://www.testbiotech.org/sites/default/files/Testbiotech_Transgene_Escape.pdf

⁸³ www.testbiotech.de/node/891

⁸⁴ http://www.testbiotech.org/sites/default/files/Testbiotech_Transgene_Escape.pdf

⁸⁵ <http://www.euractiv.com/innovation-enterprise/commission-science-supremo-endor-news-514072>

⁸⁶ Francois Damerval is Chief of Staff to Corinne Lepage, the French MEP.

⁸⁷ <http://foodvitalpublicservice.wordpress.com/2014/02/13/the-biotech-industry-retreats-from-europe-but-is-courting-africa/>

for France (and former French Minister of the Environment) says Anne Glover is wrong.⁸⁸ *“However, regarding the environmental impact of GMOs, the evidence is overwhelming and completely concrete. Not only is the dissemination of GMOs to non-GM plants proven, but the damage caused by regrowth elsewhere, which requires the use of ever more toxic pesticides, has already become a reality.”* She should also have added that in Latin America, where GMO crops have been grown since 1996, there has been an increased incidence of birth defects, miscarriages, infertility, cancers, DNA damage, neurological developmental problems in children and allergies.⁸⁹ In 2013 birth defects are still occurring in rural Argentina.⁹⁰

Corinne Lepage goes on to say: *“Glover has as such taken on a heavy amount of personal responsibility, going so far as to say the precautionary principle is no longer applicable. If in the coming years, evidence on the toxicity of GMOs comes to light, European citizens would be entitled to ask her for an explanation.”*

The Innovation Principle should replace the Precautionary Principle

The European Environment Agency had published two Reports on the Precautionary Principle: Late lessons from Early Warnings in 2001⁹¹ and 2013.⁹²

However, many pesticide lobbyists in Europe, in common with Prof Anne Glover, are calling for the ‘precautionary principle’ to be abandoned and be replaced by the ‘innovation principle’ where risk-taking is acceptable (when it is for the benefit of businesses). Twelve of the largest corporations in Europe (the majority of which are Agrochemical Corporations) submitted an Open Letter to the President of the European Commission, Mr Jose Manuel Barroso, Mr Herman Van Rompuy, President of the European Council and Mr Martin Schulz, President of the European Parliament urging them to adopt an **“Innovation Principle”** to be taken into full consideration during policy and legislative processes in order to *“Stimulate Economic Recovery”*⁹³

Commentary by Sue Davies Chairman of the EFSA Management Board following complaints about Conflicts of Interest⁹⁴

“I therefore read with interest, the latest report from Corporate Europe Observatory on alleged conflicts of interest at EFSA (with reference to the GMO Panel). The fact that EFSA makes its experts’ Declarations of Interest publicly available online allows interested parties to scrutinise for themselves how the Authority selects its scientific experts. The Management Board is confident that the policy EFSA has in place to ensure independence in its scientific work is robust. The Board is also satisfied that EFSA is implementing its own rules effectively as they apply to the selection of experts and the assessment of Declarations of Interest.”

Ms. Davies had previously worked for the UK Food Safety Authority. The following account of aspartame will demonstrate conflicts of interest in the US FDA,⁹⁵ FSA and EFSA.

Aspartame has been reviewed by the UK FSA, the Committee on Toxicity and EFSA COT POSITION PAPER ON A DOUBLE BLIND RANDOMIZED CROSSOVER STUDY OF ASPARTAME⁹⁶

“At its meeting on 29 October 2013, the Committee on Toxicity discussed a paper, describing results from a study led by scientists at Hull York Medical School”...No-one is allowed to see this study until it has been accepted for publication in a peer-reviewed journal. *“The Committee judged the delay*

⁸⁸ <http://www.euractiv.com/cap/gmos-anne-glover-wrong-analysis-514185>

⁸⁹ http://www.keine-gentechnik.de/fileadmin/files/Infodienst/Dokumente/2012_08_27_Lopez_et_al_Pesticides_South_America_Study.pdf

⁹⁰ <http://www.nationofchange.org/argentina-s-bad-seeds-1363532747>

⁹¹ http://www.eea.europa.eu/publications/environmental_issue_report_2001_22

⁹² <http://www.eea.europa.eu/publications/late-lessons-2>

⁹³ <http://www.scienceindustries.ch/file/13682/erf-communication-innovation-principle.pdf>

⁹⁴ <http://www.efsa.europa.eu/en/press/news/131024a.htm>

⁹⁵ <http://farmwars.info/?p=12217> or <http://tinyurl.com/k4x7o2r> page 23

⁹⁶ <http://cot.food.gov.uk/pdfs/cotposponaspar.pdf>

acceptable since the results presented did not indicate any need for action to protect the health of the public.” EFSA also has re-evaluated the safety of aspartame.⁹⁷ As a result, it concluded in December 2013 that ‘aspartame and its breakdown products are safe for human consumption at current levels of exposure’.

Professor Erik Millstone⁹⁸ sent a 67-page detailed response to the Head of EFSA ‘Food Ingredients and Packaging’ Unit and the Senior Scientific Officer.⁹⁹ This has been ignored, just as Dr Betty Martini and Dr John Olney¹⁰⁰ have been ignored in the US.

It was illuminating to see that the UK first authorised aspartame in 1982. That was the very year that Donald Rumsfeld who was CEO of Searle (at that time the manufacturer of aspartame before Monsanto bought Searle) managed to get it passed with the help of President Ronald Reagan.¹⁰¹ For the first 16 years aspartame was banned by the FDA because it was highly toxic to the nervous system. FDA Scientist Adrian Gross told Congress that without a shadow of a doubt, aspartame can cause brain tumors and brain cancer and that it violated the Delaney Amendment, which forbids putting anything in food that is known to cause cancer.¹⁰² What has changed? Monsanto now has total control of the CRD, FSA and EFSA.

The recommendation of the Environmental Audit Committee on GMOs 30/04/2012¹⁰³

The UK Environmental Audit Committee recommendation: *Unless and until there is both clear public and political acceptance of GM, it is proven to be both beneficial to the environment and to producers, and evidence that demand for these products is based on understanding by consumers and transparent product labeling, the Government should not license its commercial use in the UK nor promote its use overseas. The Government must ensure that the public and Parliament is well informed on this issue. It should establish an independent body to research, evaluate and report on the potential impacts on the environment of GM crops, and their impacts on farming and on the global food system. An initial focus of such research should be on the scope for, and risks of, the co-existence of GM crops with conventional and organic farming regime(n)s.*

The Government Response to the EAC¹⁰⁴

The Government recognizes that GM technology could deliver benefits providing it is used responsibly, in particular as one of a range of tools to address the longer term challenges of global food security, climate change and the need for more sustainable agricultural production. The Government therefore supports farmers having access to developments in new technology, including GM, and being able to choose whether or not to adopt them. The Government takes a science-led approach to GM, and the protection of human health and the environment are our overriding priorities... We will only agree to the planting of GM crops, the release of other types of GM organism or the marketing of GM food or feed products if a robust risk assessment that has taken full account of the scientific evidence indicates that it is safe... The Government does not agree that a new independent body should be established to research, evaluate and report on the potential impacts on the environment of GM crops, and their impacts on farming and on the global food system. In 2010, the European Commission published a report entitled "A decade of EU-funded GMO research" which summarised the results of 50 research projects addressing primarily the safety of GMOs for the environment and for animal and human health... The Commission also concluded that there was no scientific evidence associating GMOs with higher risks for the environment or for food and feed safety than conventional plants and organisms.

⁹⁷ <http://www.food.gov.uk/news-updates/news/2013/dec/efsa-aspartame#.UuAtV3xFDCs>

⁹⁸ Professor of Science Policy at the University of Sussex.

⁹⁹ http://sro.sussex.ac.uk/43821/1/EM_Letter_to_EFSA_on_Aspartame_22Feb2013.pdf

¹⁰⁰ <http://www.scribd.com/doc/6669992/Dr-John-Olney-Statement-Aspartame-1987> Dr. John Olney's letter to the Senate in 1987.

¹⁰¹ http://www.huffingtonpost.com/robbie-gennet/donald-rumsfeld-and-the-s_b_805581.html

¹⁰² <http://m.huffpost.com/us/entry/805581>

¹⁰³ <http://www.publications.parliament.uk/pa/cm201213/cmselect/cmenvaud/567/56704.htm>

¹⁰⁴ <http://www.publications.parliament.uk/pa/cm201213/cmselect/cmenvaud/567/56704.htm>

European Union Environment Council voted "Yes" on June 12 2014 on a controversial proposal that could see GM crops planted in UK fields as early as next year

An article from GeneWatch UK revealed that Owen Paterson, UK Environment Minister and the GM industry have been working to open England up to RoundUp® Ready GM crops.¹⁰⁵ *"The UK Government has colluded with commercial lobbyists to fast track RoundUp® Ready GM maize into England, despite the expected harm to British wildlife such as birds and butterflies caused by blanket spraying of these crops with weed-killer."* said Dr Helen Wallace, Director of GeneWatch UK.

"If some farmers in England press ahead with GM cultivation as a result of this proposal, then conventional and organic farmers across the country will face the unnecessary risk of loss of markets due to contamination with GM". Documents released to GeneWatch UK, as the result of Freedom of Information requests, have highlighted how closely the UK Government is working with the GM industry¹⁰⁶ and the extent to which commercial lobbying has influenced the European proposals.¹⁰⁷ *In the UK, there are no national measures for co-existence of GM and non-GM crops and for liability for the costs of contamination incidents, which can cost conventional and organic farmers many millions of pounds in lost markets for their products.* (The British Government has relied on Europe for its 'science'.¹⁰⁸) *"This is a real step forward in unblocking the dysfunctional EU process for approving GM crops, which is currently letting down our farmers and stopping scientific development,"* said Owen Paterson, UK Secretary of State for the Environment.¹⁰⁹ RT's Berlin correspondent, Peter Oliver, says that the public in environmentally conscious Germany is giving genetically modified crops a firm "no," although GM foods can be legally sold in Germany. *"In countries like Germany we've seen a massive outcry against genetically modified foods and people preferring to shop at organic stores. The reasons they've been giving for this are several – most notably health. People are saying there's not enough research, or the research hasn't even been done,"* said Oliver.

What is the Oxford Martin Commission for Future Generations?

"A diverse group of highly respected global leaders has called for a radical shake-up in politics and business to deliver progress on climate change, reduce economic inequality, improve corporate practices and address the chronic burden of disease."

The Commission was founded in 2005. In that case why has the Global Burden of Disease greatly increased in the UK and the US between 1990 and 2010?¹¹⁰

In the UK: *"The performance of the UK in terms of premature mortality is persistently and significantly below the mean of EU15+ and requires additional concerted action... premature mortality from several major causes such as cardiovascular disease and cancers...In terms of premature mortality worsening ranks are most notable for men and women aged 20-54 years. Increases in Alzheimer's disease, breast cancer, oesophageal cancer, congenital anomalies "and a growing burden of disability, particularly from mental disorders" are all acknowledged.*

The Chairman is Pascal Lamy, Former Director-General of the World Trade Organization. It is of interest to note that, in a case brought by the US, Canada, and Argentina in 2006, the World Trade Organization (WTO) ruled that the European moratorium on GM crops was illegal.

Sir John Beddington is Senior Adviser and Professor of Natural Resources Management, and Lord Patten, Chairman of the BBC Trust, is a Commissioner. It is not surprising that Sir John was able to persuade the BBC to present an edition of Countryfile (with himself in a starring rôle) about the benefits of GM crops. There were many complaints from viewers about bias, which the BBC dismissed. How can the only public-funded Corporation completely deceive the public by

¹⁰⁵ <http://www.genewatch.org/article.shtml?als%5bcid%5d=574133&als%5biteid%5d=574596>

¹⁰⁶ [http://www.genewatch.org/article.shtml?als\[cid\]=492860&als\[itemid\]=574495](http://www.genewatch.org/article.shtml?als[cid]=492860&als[itemid]=574495)

¹⁰⁷ <http://corporateeurope.org/food-and-agriculture/2014/05/biotech-lobbys-fingerprints-over-new-eu-proposal-allow-national-gmo>

¹⁰⁸ <http://www.publications.parliament.uk/pa/cm201213/cmselect/cmenvaud/567/56704.htm>

¹⁰⁹ <http://rt.com/news/165608-gm-crops-eu-deal/>

¹¹⁰ <http://www.ncbi.nlm.nih.gov/pubmed/23668584> UK health performance: findings of the Global Burden of Disease Study 2010

broadcasting so many Television and Radio programmes that are unbalanced and biased in favour of the pesticides industry?

Is the former Director General of the WTO there as Chairman to help the signing of TTIP?

The purpose of the Transatlantic Trade and Investment Partnership apparently is to remove the regulatory differences between the US and European nations. In the Guardian on 05/11/2013 George Monbiot wrote This US trade deal is a full frontal assault on democracy. To quote from his article:¹¹¹ “the remarkable ability it would grant big business to sue the living daylights out of governments which try to defend their citizens. It would allow a secretive panel of corporate lawyers to overrule the will of parliament and destroy our legal protections.” In a second article:¹¹² Chickens in chlorine? That’s what free trade’s about. “Last month, while trying to defend the treaty, the British Minister Kenneth Clarke said something revealing: Investor protection is a standard part of free-trade agreements - it was designed to support businesses investing in countries where the rule of law is unpredictable, to say the least. George Monbiot asks: “So what is it doing in an EU-US deal? Why are we using measures designed to protect corporate interests in failed states in countries with a functioning judicial system?”

Devastating declines in pollinators and systemic neonicotinoid insecticides

The European Commission recently announced the results of a honey bee study¹¹³ on colony mortality. Italy, which banned neonicotinoids on maize in 2008, had a mortality of 5.3% in winter 2012-2013, whereas the winter loss in the UK was 28.8%. In 2008, the Italian Minister of Health and the Minister of Agriculture had decided to apply the precautionary principle and suspend on an annual basis the insecticides on maize-treated seeds (clothianidin, thiamethoxam, imidacloprid and fipronil). According to a letter sent by Dr Porrini and Prof Maini to the EU Commission Enquiry into Bee Health, winter bee hive losses declined from 37.5% in 2007-2008 to around 15% in 2010-2011. In 2012-13 it was 5.3%. No major ground-based pest attacks were observed, even without using treated seeds. As a result, in 2011 in a court in Turin, Prosecutor Guariniello, who had conducted an investigation into the memory of bees, sent a warning to the managing directors of Bayer CropScience in Milan and Syngenta Crop Protection in Italy. They could be charged with the spreading of diseases to animals (or plants) which pose a danger to the national economy. In contrast, the UK Agency Defra has invited Syngenta to conduct a further pollinator study in 2014. How could that be? Because the government is working with the pesticides industry to try to bring GM crops into Britain.¹¹⁴

The Defra Pesticides Forum Annual Report 2011 Executive Summary¹¹⁵

Pesticides Forum in 2011 states that: “the use of pesticides is not adversely impacting on the health of UK citizens or the environment. This is testimony to the effectiveness of both statutory and voluntary controls.”

The ‘Science’ of neonicotinoids from the Oxford Martin Commission

Defra wants Syngenta to do a further pollinator study because the UK government is attempting to overturn the neonicotinoid ban. In the light of the evidence from Italy, this perverse action by Defra is being challenged by the Parliamentary Environmental Audit Committee. The EAC is taking evidence for another enquiry in June 2014.¹¹⁶ On behalf of the Oxford Martin Commission, Professor Charles

¹¹¹ <http://www.theguardian.com/commentisfree/2013/nov/04/us-trade-deal-full-frontal-assault-on-democracy>

¹¹² <http://www.theguardian.com/commentisfree/2013/dec/02/transatlantic-free-trade-deal-regulation-by-lawyers-eu-us>

¹¹³ http://ec.europa.eu/food/animals/live_animals/bees/study_on_mortality/index_en.htm

¹¹⁴ <http://www.dailymail.co.uk/news/article-2621058/Secret-emails-reveal-ministers-plotted-GM-lobbyists-Documents-two-worked-campaign-win-sceptical-consumers.html>

¹¹⁵ <http://www.pesticides.gov.uk/Resources/CRD/Migrated-Resources/Documents/P/Pesticides-Forum-AR-2011-revSep12.pdf>

¹¹⁶ <http://www.parliament.uk/business/committees/committees-a-z/commons-select/environmental-audit-committee/news/newinquirynationalpollinatorstrategy/>

Godfray has just published a new paper in the Proceedings of the Royal Society: “*A restatement of the natural science base concerning neonicotinoid insecticides and insect pollinators.*”¹¹⁷ What Godfray *et al.* described as “*true field experiments in the sense that the treatments involve the normal use of neonicotinoids*” which “*found no effects of neonicotinoids*”¹¹⁸ were either done by Syngenta employees, or in the case of the Thompson paper on bumblebees,¹¹⁹ was commissioned by Syngenta. Dr Thompson’s study was heavily criticised by EFSA as being flawed. Dr Thompson left the UK Food and Environment Research Agency in August 2013 and joined Syngenta as Principal Technical Expert in September 2013. I am surprised that Dr Nigel Raine from Royal Holloway College signed up to this paper as a co-author. Has he modified his attitude to the neonicotinoid insecticides since 2012 when as part of the Pollinator Project he wrote a paper: Combined pesticide exposure severely affects individual – and colony- level traits in bees? Dr Raine has just been appointed as the inaugural holder of Canada’s first Research Chair in Pollinator Conservation at the University of Guelph.¹²⁰ Bayer CropScience funded Chris Cutler’s initial study of the impact of Clothianidin Seed- treated canola on Honey Bees (Guelph). It was initially accepted (retrospectively) by the US EPA as a hive study in 2006 for the purposes of conditional registration (which had been granted in 2003¹²¹ conditional upon a hive study being done)¹²² but it was later downgraded. The design of the study was also criticized by the Canadian Pest Management Authorities.¹²³

Professor Charles Godfray wrote the Future of Farming Report with Syngenta

Is it a coincidence that Prof Charles Godfray (NERC) was Lead Scientist on the Foresight Future of Farming and worked with Syngenta on GM wheat? Page 88: “*Wheat is the most internationally-traded food crop and the single largest food import in low-income countries. A public-private partnership between Syngenta and the International Maize and Wheat Improvement Center (CIMMYT) will focus on the development and advancement of technology in wheat through joint research and development in the areas of native and GM traits, hybrid wheat and the combination of seeds and crop protection to accelerate plant yield performance. The partnership will leverage both Syngenta’s genetic marker technology, advanced genetic traits platform and wheat-breeding for the high-income countries, as well as CIMMYT’s access to wheat genetic diversity, global partnership network, and wheat-breeding programme targeted to the low-income countries.*”

Where has scientific integrity in Universities gone?

Prof Jeremy Ramsden, Editor-in-Chief of *The Journal of Biological Physics and Chemistry* laments the loss of distinction between University Research and Commissioned Research (either from industry or from Government Departments).¹²⁴ “*This renunciation of unimpeachable scientific integrity could not have come at a worse time for humanity. Our technical capabilities for manipulating nature have reached unprecedented heights.*”

Britain joins forces with Monsanto

On 23/09/2013 the British Government¹²⁵ joined forces with Monsanto, EFSA and the EU Commission to fight civil society in the EU Court to defend the right to import Monsanto’s transgenic soybean Intacta® which produces an insecticide and is resistant to glyphosate herbicides such as

¹¹⁷ <http://rspb.royalsocietypublishing.org/content/281/1786/20140558.full.html>

¹¹⁸ <http://www.plosone.org/article/authors/info%3Adoi%2F10.1371%2Fjournal.pone.0077193;jsessionid=26BAA0B63C90A7DADDB02FBA4A3A9179>

¹¹⁹ <http://www.entomology.umn.edu/cues/pollinators/pdf-EU/2013DEFRA%20bumble%20bees.pdf>

¹²⁰ http://www.uoguelph.ca/news/2013/12/u_of_g_names_ch.html

¹²¹ <http://www.epa.gov/opprd001/factsheets/clothianidin.pdf>

¹²² Cutler, C. 2006. An Investigation of the Potential Long-Term Impact of Clothianidin Seed Treated Canola on Honey Bees, *Apis mellifera* L. Department of Environmental Biology University of Guelph (Guelph, Ontario, N1G 2W1); Bayer CropScience; August 1, 2006.

¹²³ Canadian Review of Cutler Clothianidin Field Study.pdf

¹²⁴ Ramsden, J.J. The independence of university research. *Nanotechnology Perceptions* 8 (2012) 87-90.

¹²⁵ <http://www.testbiotech.de/en/node/898>

Roundup®. In fact in Brazil court actions are piling up against Monsanto¹²⁶ for collecting royalties on RR1 soybeans regarded as illegal and for conditioning the sale of new GM seed Intacta RR2 to the signing of a contract seen as abusive.

Monsanto employed Total Intelligence Solutions to protect the Corporation's name¹²⁷

Spooky Business: Corporate Espionage Against Nonprofit Organizations Published on 20/11/2013.

Page 33 gives information about the biotech giant, Monsanto:

The following information came from Jeremy Scahill reported in the *Nation* magazine that the security firm “*Blackwater, through Total Intelligence, sought to become the ‘intel arm’ of Monsanto, offering to provide operatives to infiltrate activist groups organizing against the multinational biotech firm.*”¹²⁸ In recent years, Blackwater has twice been re-named: first as XE Services and again as Academi.¹²⁹ According to documents he obtained, Scahill reported in the *Nation* that: Through Total Intelligence and the Terrorism Research Center, Blackwater also did business with a range of multinational corporations. According to internal Total Intelligence communications, biotech giant Monsanto—the world's largest supplier of genetically modified seeds—hired the firm in 2008–09. The relationship between the two companies appears to have been solidified in January 2008 when Total Intelligence chair Cofer Black traveled to Zurich to meet with Kevin Wilson, Monsanto's security manager for global issues. After the meeting in Zurich, Black sent an e-mail to other Blackwater executives, including to [Blackwater owner and founder Erik] Prince and [coordinator of Blackwater's CIA business Enrique ‘Ric’] Prado at their Blackwater e-mail addresses. Black wrote that Wilson “*understands that we can span collection from internet, to reach out, to boots on the ground on legit basis protecting the Monsanto [brand] name.... Ahead of the curve info and insight/heads up is what he is looking for.*” Black added that Total Intelligence “*would develop into acting as intel arm of Monsanto.*” Black also noted that Monsanto was concerned about animal rights activists and that they discussed how Blackwater “*could have our person(s) actually join [activist] group(s) legally.*” Black wrote that initial payments to Total Intelligence would be paid out of Monsanto's “generous protection budget” but would eventually become a line item in the company's annual budget. He estimated the potential payments to Total Intelligence at between \$100,000 and \$500,000. According to documents, Monsanto paid Total Intelligence \$127,000 in 2008 and \$105,000 in 2009.”

Computer hacking. (p47) “*There are many different techniques available to corporate spies who wish hack a computer or computer network.*”

Why and by whom was my computer hacked?

On 15th November 2013, my outgoing emails (3-years'-worth back to December 2010 when we first started to complain to the British Government) were destroyed by a British agency and my contacts list deleted, at the same time as Anthony Samsel's computer was hacked; fortunately his quick thinking saved his files. Who would want to destroy my emails and why? Was it because I had a document someone needed to destroy before the Séralini's rat studies could be retracted by the Editor of the Journal of Food and Chemical Toxicology?

Editor-in-Chief A. Wallace Hayes made the extraordinary and unprecedented announcement on 28th November 2013 that they had retracted the paper by Prof Gilles-Eric Séralini's group which found severe toxic effects (including liver congestion and necrosis and kidney nephropathies), increased tumour rates and higher mortality in rats fed Monsanto's genetically modified NK603 maize and/or the associated herbicide Roundup®.

I had sent a document on 22nd October 2012 to Dirk Detken, Chief Attorney for the European Food Safety Authority, Subject: EFSA and the Séralini paper on rat tumours. I told him that Monsanto had already done “experiments” in humans in South America with GM Roundup® Ready Soy: the

¹²⁶ http://sustainablepulse.com/2013/12/09/monsanto-faces-usd-1-billion-brazilian-farmer-lawsuit/#.UqlqP_RdU64

¹²⁷ <http://www.corporatepolicy.org/spookybusiness.pdf>

¹²⁸ Jeremy Scahill, “Blackwater's Black Ops.” *The Nation*, September 15, 2010.

¹²⁹ Academi has received \$2.1 billion in federal contracts, including \$1.5 billion with the State Department and \$607 million with the Defense Department, according to USASpending.gov (accessed October 28, 2013).

farmers and their families had been affected by birth defects, reproductive problems, cancers and DNA changes shown on blood tests. Fortunately my letter is still linked to a website.¹³⁰ I sent another email to Dirk Detken on 13 December 2013 to which I attached the document: Corporate Espionage: The Seralini Affair and Beyond.¹³¹ I gave an account of the hacking of my email and wrote: *"I believe that this constitutes a criminal offence under the Regulating of Investigating Powers Act 2000 Section 1: Unlawful Interception."*¹³²

Wikileaks exposed information about US targeting the EU over GM crops¹³³

When France made moves to ban Monsanto in 2007, US embassy cable recommends drawing up list of countries for retaliation over opposition to genetic modification.¹³⁴ Ambassador Craig Stapleton wrote on 14/12/2007: *"Country team Paris recommends that we calibrate a target retaliation list that causes some pain across the EU since this is a collective responsibility, but that also focuses in part on the worst culprits. The list should be measured rather than vicious and must be sustainable over the long term, since we should not expect an early victory. Moving to retaliation will make clear that the current path has real costs to EU interests and could help strengthen European pro-biotech voices,"* said Stapleton, who with Bush co-owned the Dallas/Fort Worth-based Texas Rangers baseball team in the 1990s. The cables show that US diplomats were working directly for GM companies such as Monsanto.

Why is the pesticides industry investing so much money in human health?

Syngenta's parent company is AstraZeneca. AstraZeneca manufactures six different anti-cancer drugs mainly aimed at breast and prostate cancer. The Corporation has links in Asia, including Hospitals in China, Japan, Korea, and collaborators in Russia. AstraZeneca's Oncology Website¹³⁵ has the following portentous prediction: *"Cancer claims over 7 million lives every year and the number continues to rise. Deaths are estimated to reach 12 million by 2030."*

Michael Pragnell MA MBA was the founder of Syngenta and CEO of Syngenta AG based in Switzerland (from its public listing in 2000 to the end of 2007). He was appointed a Trustee of Cancer Research UK (CRUK) in March 2010 and Chairman in November 2010. CRUK is donating money (£450 million/year) to the Government's Strategy for UK Life Sciences¹³⁶ and AstraZeneca is providing 22 compounds to academic research to develop medicines.

Glyphosate earns billions for the Pharmaceutical Companies with the sales of Statins

The graphs from the US correlate glyphosate with disorders of lipoprotein metabolism, diabetes, hypertension and stroke (See Appendix for correlation charts).

Agricultural Corporations all make their own brands of glyphosate. The secret ingredients act as detergents or surfactants; they help penetration but make the glyphosate far more toxic.¹³⁷

The controversy about treatment of high cholesterol levels with statins

Prof Sir Rory Collins of Oxford University says that all people should consider taking statins at the age of 50, and the doctors who advise otherwise *"may be putting lives at risk"* from heart attacks and stroke.¹³⁸ Sir Rory in his video supplied a vital clue when he said *"a Chinese peasant would only*

¹³⁰ <http://gmandchemicalindustry9.wordpress.com/european-food-safety-authority-and-the-seralini-paper-on-rat-tumours/>

¹³¹ <https://independent.academia.edu/RosemaryMason>

¹³² <http://www.legislation.gov.uk/ukpga/2000/23/contents>

¹³³ <http://wikileaks.org/cable/2007/12/07PARIS4723.htm>

¹³⁴ <http://www.theguardian.com/world/2011/jan/03/wikileaks-us-eu-gm-crops/print>

¹³⁵ <http://www.astrazeneca.co.uk/medicines/oncology>

¹³⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32457/11-1429-strategy-for-uk-life-sciences

¹³⁷ Ethoxylated adjuvants of glyphosate-based herbicides are active principles of human cell toxicity.

Toxicology 2013 <http://dx.doi.org/10.1016/j.tox.2012.09.006>

¹³⁸ <http://www.theguardian.com/society/2014/mar/21/sp-doctors-fears-over-statins-may-cost-lives-says-top-medical-researcher>

have a cholesterol level 2 mmol/L; whereas men in Britain have higher levels". Glyphosate was introduced in 1975. At what stage did doctors start treating high levels with statins? In a Merck-sponsored study with simvastatin in 1994¹³⁹ "... a 35% reduction in their cholesterol, and their chances of dying of a heart attack were reduced by 42%."

European Commission's failure to identify Endocrine Disrupting Chemicals (EDC)

An assessment of the State of Science of Endocrine Disruptors was prepared for the United Nations Environment Program and the World Health Organization by a group of approximately 50 expert scientists.¹⁴⁰

The authors outlined the current evidence of: 1) a high incidence, and increasing trends, of many endocrine-related disorders in humans; 2) observations of endocrine-related effects in wildlife populations; 3) identification of chemicals with endocrine disrupting properties linked to disease outcomes in laboratory studies.

"Endocrine-related disorders in humans are manifest by:

- Increases in low semen quality in young men (up to 40%)*
- Incidence of genital malformations has increased over time*
- Adverse pregnancy outcomes and birth defects has increased in many countries*
- Neurobehavioural disorders related to thyroid dysfunction has increased*
- Endocrine-related cancers (breast, endometrial, ovary, prostate, testicular and thyroid cancers) have been increasing over the past 40 -50 years*
- Earlier onset of breast development in young girls which leads to breast cancer*
- The prevalence of obesity and type 2 diabetes is increasing. The WHO estimates that 1.5 billion adults worldwide are overweight or obese and that the number with type 2 diabetes increased from 153 million to 347 million between 1980 and 2008."*

The conclusion was: *"It is essential to evaluate associations between EDC exposures and health outcomes by further developing methods for which proof of concept is currently under development."*

An Editorial in the *Lancet*¹⁴¹ concluded: *"there is currently no widely agreed system for assessing the strength of associations between exposure to chemicals (including EDCs) and adverse health outcomes."*

Glyphosate was not even considered as a candidate for an Endocrine Disrupting Chemical; why was that? In the Report overwhelming evidence was produced to show that atrazine (Syngenta) was an EDC; so why wasn't it named as such? The reason is that atrazine is still used extensively in many countries, including the US and Australia and Syngenta has enormous global power. However, atrazine was banned in Europe 10 years ago, so it is unlikely to have had a major contribution to early breast development in girls. In 2014, girls in Europe age 13 have advanced physical and sexual development equivalent to that of a 16-18-year-old 30 years ago.

A letter had been sent to Prof Anne Glover Chief Scientific Officer to the European Commission protesting about the Draft Regulation on endocrine active chemicals 18/06/2013¹⁴²

Seventy three individuals writing under the umbrella of the Royal Society of Chemistry complained that the European Commission was ignoring scientific principles in the setting of a regulatory framework for endocrine disrupting chemicals.

Sweden decides to sue the EU for delay on identifying hormone disrupting chemicals

On May 22 2014, Sweden said it would sue the European Commission over a delay in identifying harmful chemicals in everyday products, which it blamed on chemical industry lobbying.¹⁴³

¹³⁹ <http://www.ncbi.nlm.nih.gov/pubmed/7968073>

¹⁴⁰ http://unep.org/pdf/9789241505031_eng.pdf

¹⁴¹ [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(13\)60564-4/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)60564-4/fulltext)

¹⁴² <http://www.rsc.org/suppdata/tx/c3/c3tx90013d/c3tx90013d.pdf>

¹⁴³ <http://www.capitalfm.co.ke/business/2014/05/sweden-to-sue-eu-for-delay-on-hormone-disrupting-chemicals/>

“This delay is due to the European chemical lobby, which put pressure again on different Commissioners,” Swedish Environment Minister Lena Ek told AFP.

The Commission was due to set criteria by December 2013 to identify endocrine disrupting chemicals (EDCs) in thousands of products — including disinfectants, pesticides and toiletries — which have been linked to cancers, birth defects and development disorders in children. *“Hormone disrupters are becoming a huge problem,”* said Ek, explaining that Sweden and Denmark had written to the Commission to demand action but to little avail.

“In some places in Sweden we see double sexed fish. We have scientific reports on how this affects fertility of young boys and girls, and other serious effects.”

New attack on EU policy regarding endocrine disruption: Health DG SANCO prepares an escape route for pesticides¹⁴⁴ 20/05/2014

“Commission health service DG SANCO is on its way to develop an escape route for endocrine disrupting pesticides that will be banned in future. This is done behind closed doors with EU member states and Food Authority EFSA. Sweden fiercely protested against this initiative because they feel the pesticide Regulation is misused and doesn’t allow for a general derogation. Food Authority EFSA is also active in the SANCO working group, lobbying to revise the legislation on endocrines back to traditional risk assessment and encouraging SANCO to use an escape route.”

The effects of chemicals on the development of the brain

ONLY ONE CHANCE: How Environmental Pollution Impairs Brain Development - and How to Protect the Brains of the Next Generation by Professor Philippe Grandjean: Oxford University Press.

“This book is a huge gift to humankind from an eminent scientist. Grandjean tells the truth about how we have been ruining the brain power of each new generation and asks if there are still enough intelligent people in the world today to reverse the problem. I cannot rid myself of the idea that too many brains have been drained and society is beyond the point of no return. We must learn from the follies and scandals that Grandjean reveals and stop the chemical brain drain before it is too late.”

THEO COLBORN, PHD, President, TEDX (the Endocrine Disruptor Exchange)

Chemical brain drain: insidious and pervasive

“Today, one out of every six children suffers from some form of neurodevelopmental abnormality. The causes are mostly unknown. Some environmental chemicals are known to cause brain damage and many are suspected of it, but few have been tested for such effects.

The brain’s development is uniquely sensitive to toxic chemicals and even small deficits may negatively impact our academic achievements, economic success, risk of delinquency, and quality of life. Chemicals such as mercury, polychlorinated biphenyls (PCBs) arsenic and certain pesticides pose an insidious threat to the next generation’s brains. When chemicals in the environment affect development of the child’s brain, he or she is at risk for mental retardation, cerebral palsy, autism, ADHD, and a range of learning disabilities and other deficits that will remain for a lifetime.

The chemical brain drain can be halted to protect the next generation’s brain power. First, we need to control all of the 200 industrial chemicals that have already been proven to affect brain functions in adults, as their effects on the developing brain are likely even worse. We must also demand routine testing for brain toxicity, stricter regulation of emissions of brain-toxic chemicals, and required disclosure on the part of industries who unleash these hazardous chemicals into products and the environment. Decisions can still be made to protect the brains of future generations – and some decisions appear to be seriously overdue. This site aims at furthering information on chemical risks to brain development and ways to protect the next generation against chemical brain drain.”¹⁴⁵

Excerpt from 2012 US Report on Children’s Health: A Generation in Jeopardy¹⁴⁶

Breast Milk *Studies from around the world have documented pesticides in human breast milk, though experts agree it remains the best source of nutrition for infants. Baby foods and fruit juices consumed*

¹⁴⁴ <http://www.pan-europe.info/News/PR/140520.html>

¹⁴⁵ <http://braindrain.dk/> www.chemicalbraindrain.info

¹⁴⁶ <http://www.panna.org/publication/generation-in-jeopardy>

by infants and toddlers tend to be highly processed, which can sometimes concentrate pesticide residues existing on the fresh produce. U.S. researchers measuring pesticides in baby foods found low-level residues of many pesticides, including eight known to be toxic to the nervous system, five that disrupt hormones and eight that are potential carcinogens

The chemicals found in a mother's milk represent a combination of long-lasting pesticides and industrial pollutants that have accumulated over a lifetime (many of which the body tends to store in fatty tissues), and shorter-lived chemicals that a woman is exposed to during pregnancy and breast feeding. This chemical burden is transferred to nursing infants just as their bodies are most vulnerable to chemical harms. The good news is that analysis of decades of banked breast milk in Sweden shows that bans on specific chemicals can result in rapid and dramatic decreases in the levels of some of those compounds in human milk.

Violent Behavior: A Solution in Plain Sight

This paper by Sylvia Onusic,¹⁴⁷ PhD, CNS, LDN, seeks reasons for the increase in violent behaviour in America, especially among teenagers. She identifies malnutrition, vitamin and micronutrient deficiency as potent causes of aberrant behaviour, crime and the spectrum of autistic diseases. Some children have been corrected by a proper diet free of junk food.

Increases in depression and anti-depressant medication

Researchers from the Nuffield Trust and the Health Foundation identified a long-term trend of increasing prescriptions of antidepressants, rising from 15 million items in 1998 to 40 million items in 2012.¹⁴⁸ This could be explained by the effects of glyphosate residues on serotonin metabolism.¹⁴⁹

Industry says that it is only because we are living longer that we are getting cancers,

But if you look at obituaries in the British Medical Journal and those in the mainstream press there are now many younger people (and young children) dying very rapidly from aggressive disease. A number of people are now failing to reach their "*three score years and ten.*" This is reflected in the latest Global Burden of Disease study. Unfortunately industry is working **within** Government. The first evidence we have is from 1997, when under the 'revolving doors' system (described in the US with Monsanto) Dr Peter Campbell moved from the Pesticide Safety Directorate (now the CRD) straight into a job with Syngenta. From that point onwards Syngenta was in a privileged position.

Cancer has become so common that people have got used to saying: "*he lost his wife to cancer.*"

But they have no concept of what it is like for the person left behind. However, there have been a number of poets/prose writers who have described the devastating effects of the loss of a spouse. Poet: Douglas Dunn 'Elegies' about the death of his wife from cancer aged 37.

Poet: Christopher Reid 'A Scattering': about his wife Lucinda who died from cancer aged 56.

Prose: Julian Barnes: 'Levels of life' Part 3; The loss of depth. His wife, the literary agent, Pat Kavanagh, died 37 days after her diagnosis (she sustained a fractured leg from a bone secondary) Iain Banks who died within 3 months of being diagnosed wrote: The Quarry, a novel about a man with terminal cancer being looked after by his 22-year-old son (who has an Autistic/Asberger's spectrum disorder). He rages against '*the dying of the light*' at a reunion with his University friends. Dennis Potter the playwright and author died in 1994 within 3 months of being diagnosed with terminal pancreatic cancer. Potter gave an interview to Melvyn Bragg, which was later published under the title Seeing the Blossom. He talked about what he knew to be his last spring: "*It's a plum tree, it looks like apple blossom but it's white, and looking at it, instead of saying "Oh that's nice blossom" ... last week looking at it through the window when I'm writing, I see it is the whitest, frothiest, blossomest blossom that there ever could be, and I can see it. Things are both more trivial than they ever were, and more important than they ever were, and the difference between the trivial and the important doesn't seem to matter. But the nowness of everything is absolutely wondrous, and*

¹⁴⁷ <http://www.westonaprice.org/environmental-toxins/violent-behavior-a-solution-in-plain-sight/pdf>

¹⁴⁸ <http://www.theguardian.com/society/2014/may/28/-sp-antidepressant-use-soared-during-recession-uk-study>

¹⁴⁹ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3945755/>

if people could see that, you know.” The difference between Potter and the other authors was that he knew his wife had terminal breast cancer and they died within 9 days of each other.

It is all very well outsourcing human health and the environment to industry

But the US EPA, EFSA, the EU Commission, the Chemicals Regulation Directorate, the British Government and the US Government share the ultimate responsibility for what has happened to human health and the environment.

Chemical contamination of the environment is becoming extreme

What is happening to us, will in the end happen to you and your families

Rosemary Mason MB ChB FRCA

On behalf of Global Citizens against Big Ag, Big Pharma and Governments.

The following Appendix contains the following graphs showing trends since 1975

From the Cancer Research UK website

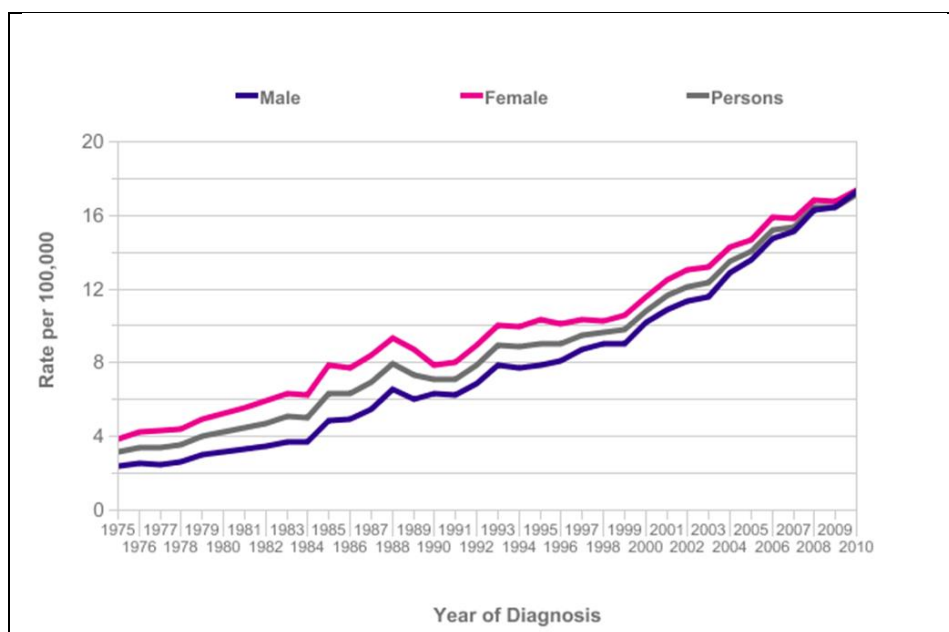
Trends over time of the incidence of:

Malignant Melanoma; Cancer of the Thyroid; Cancer of the Prostate; Cancer of the Breast; Cancer of the Liver; Myeloma and Anal Cancer.

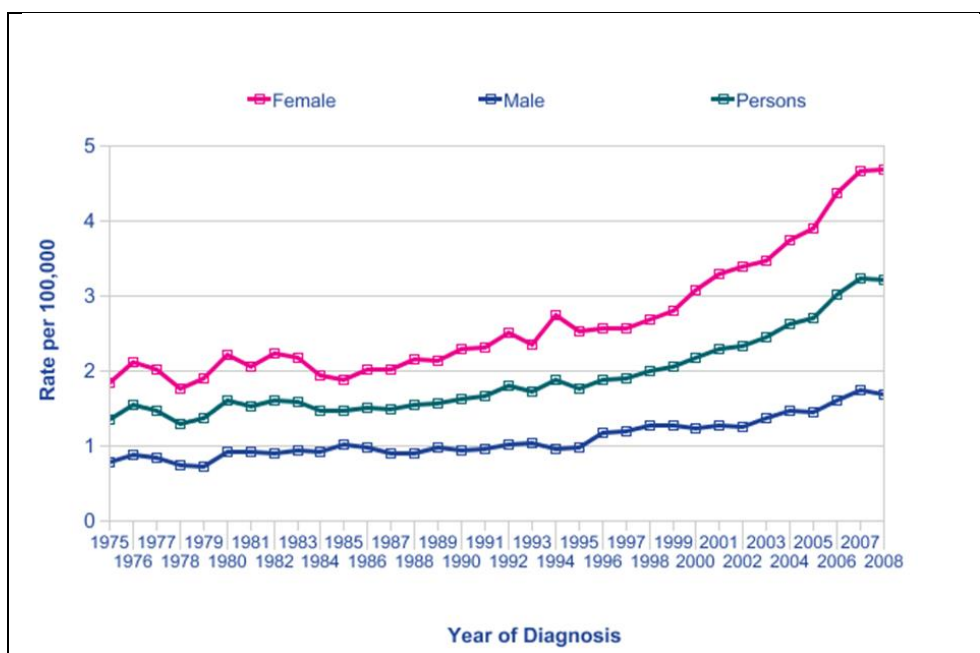
Correlations from the US with glyphosate application and/or percentage of GM soy and corn

Glyphosate applications to Soy, Corn and Cotton, Number of children with Autism, Prevalence of Diabetes, Deaths due to Obesity, Deaths from Senile Dementia, Analysis of GM and non-GM Corn (with thanks to Moms Across America and I-SIS), Incidence of Kidney and Renal Pelvis Cancer, Incidence of Liver and Intrahepatic Bile Duct Cancer, End Stage Renal Disease Deaths, Congenital Birth Defects, Diagnosis of Celiac Disease, Diagnoses of Inflammatory Bowel Disease, Deaths due to Stroke, Deaths due to Hypertension, Diagnosis of Hepatitis C, Deaths from Alzheimer's, Deaths from Parkinson's Disease, Deaths due to Intestinal Infection, Deaths due to Disorders of Lipoprotein Metabolism (hyperlipoproteinemia and hypercholesterolemia).

Appendix of graphs showing the increases in some diseases since 1975



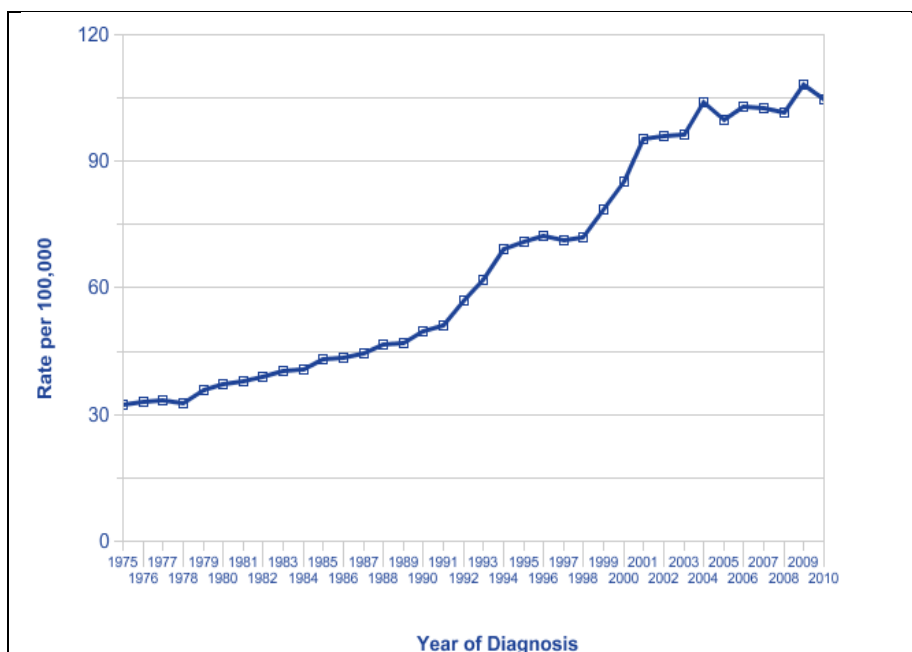
*Malignant Melanoma: Age standardised incidence rates per 100,000 Population by sex, Great Britain. Prepared by Cancer Research UK.*¹⁵⁰



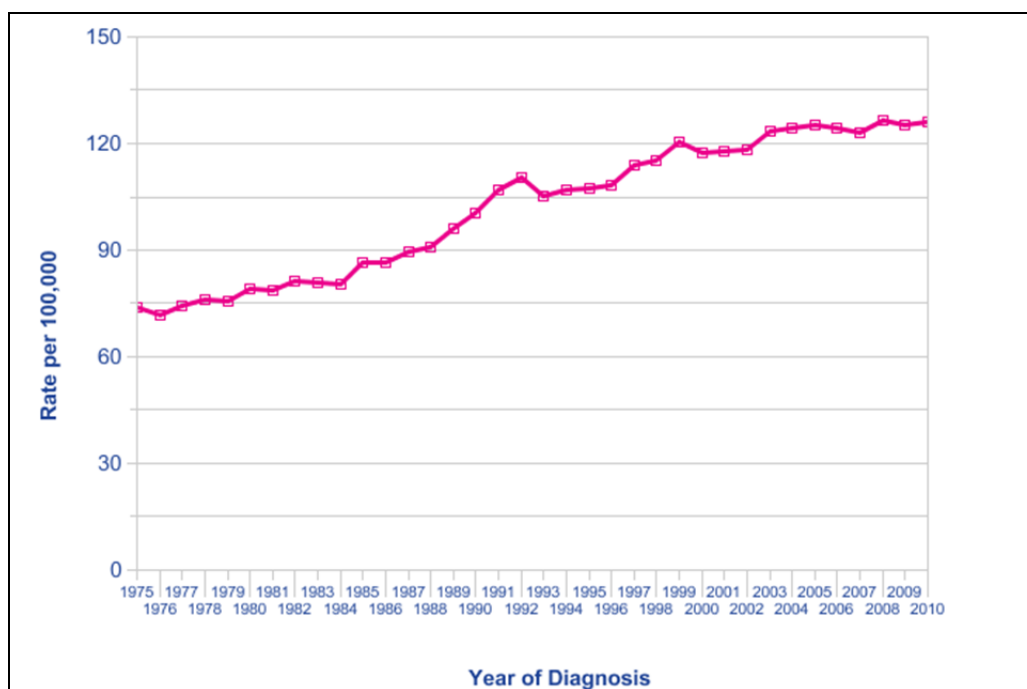
*Thyroid cancer: European Age-Standardised Incidence Rates, Great Britain, 1975-2008 Prepared by Cancer Research UK.*¹⁵¹

¹⁵⁰ <http://info.cancerresearchuk.org/cancerstats/fags/#>

¹⁵¹ <http://www.cancerresearchuk.org/cancer-info/cancerstats/types/thyroid/incidence/>



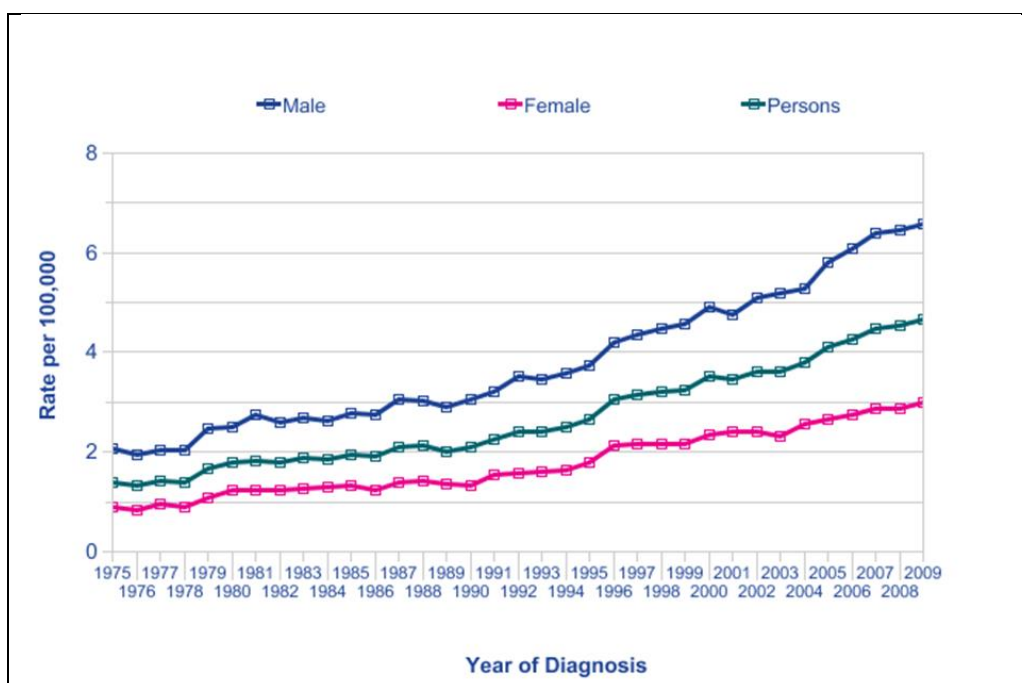
*Prostate Cancer 1975-2010. European Age standardised incidence rates per 100,000 Population, males, Great Britain Prepared by Cancer Research UK.*¹⁵²



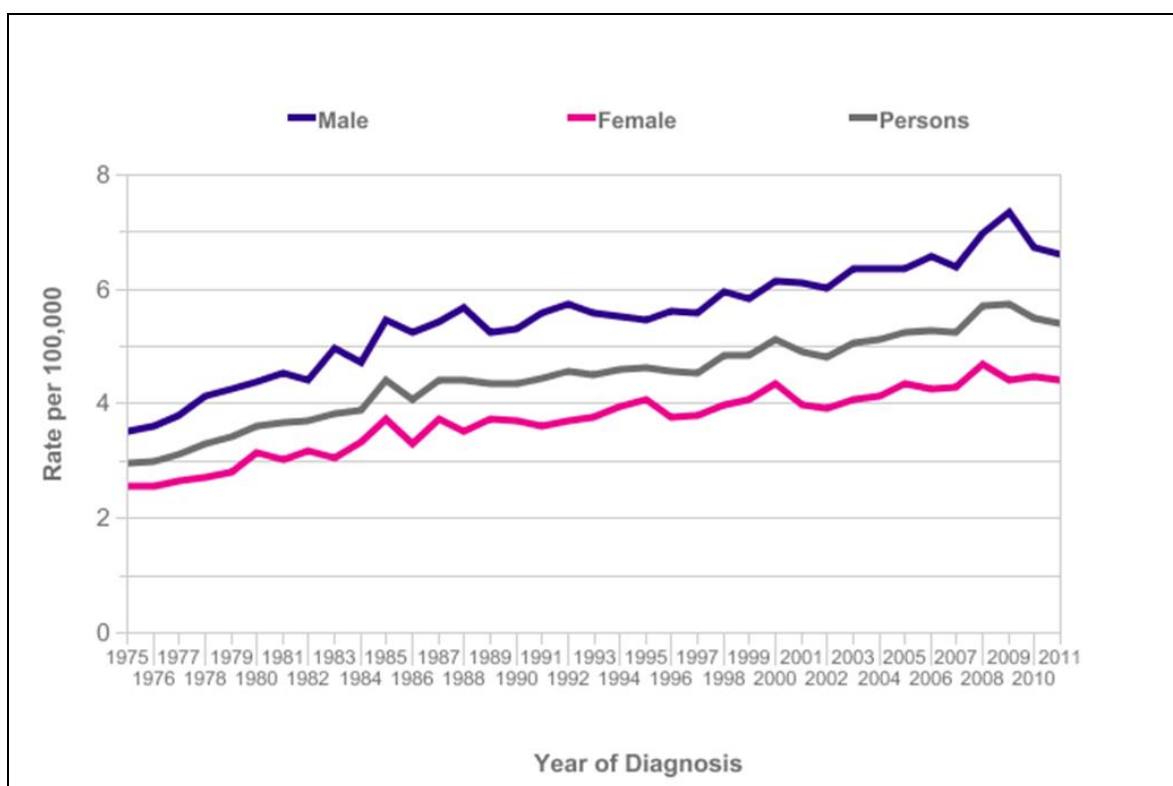
*Breast Cancer (C50), European Age-Standardised Incidence Rates, Females, Great Britain, 1975-2010 Prepared by Cancer Research UK.*¹⁵³

¹⁵² <http://www.cancerresearchuk.org/cancer-info/cancerstats/types/prostate/incidence/uk-prostate-cancer-incidence-statistics#trends>

¹⁵³ <http://www.cancerresearchuk.org/cancer-info/cancerstats/types/breast/incidence/#trends>



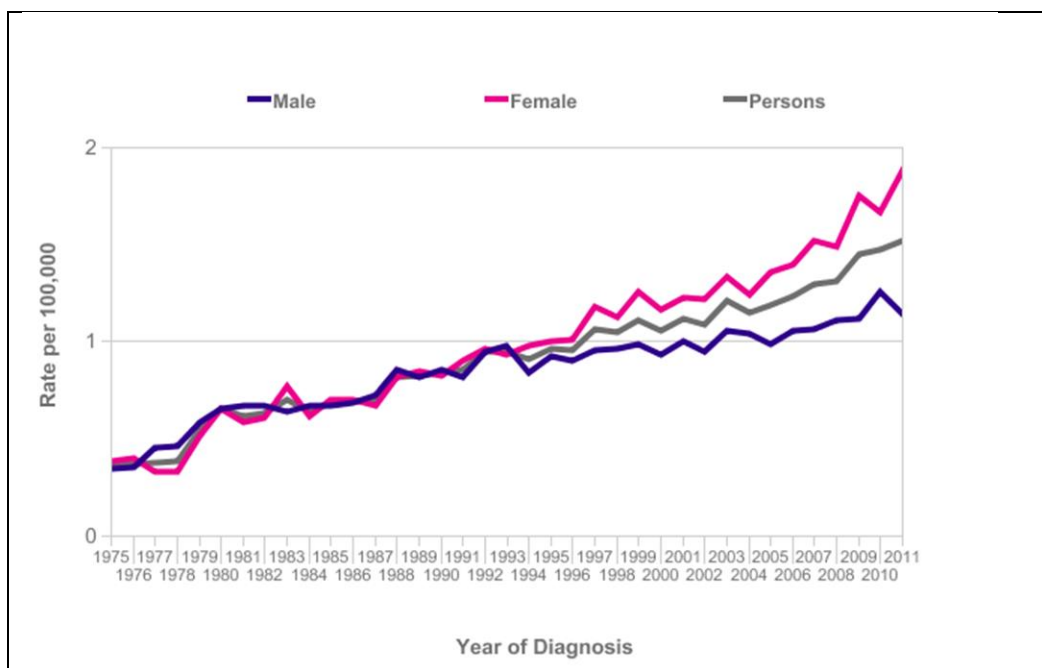
Liver Cancer: European Age-Standardised Incidence Rates, male and females, Great Britain, 1975-2009
*Prepared by Cancer Research UK.*¹⁵⁴



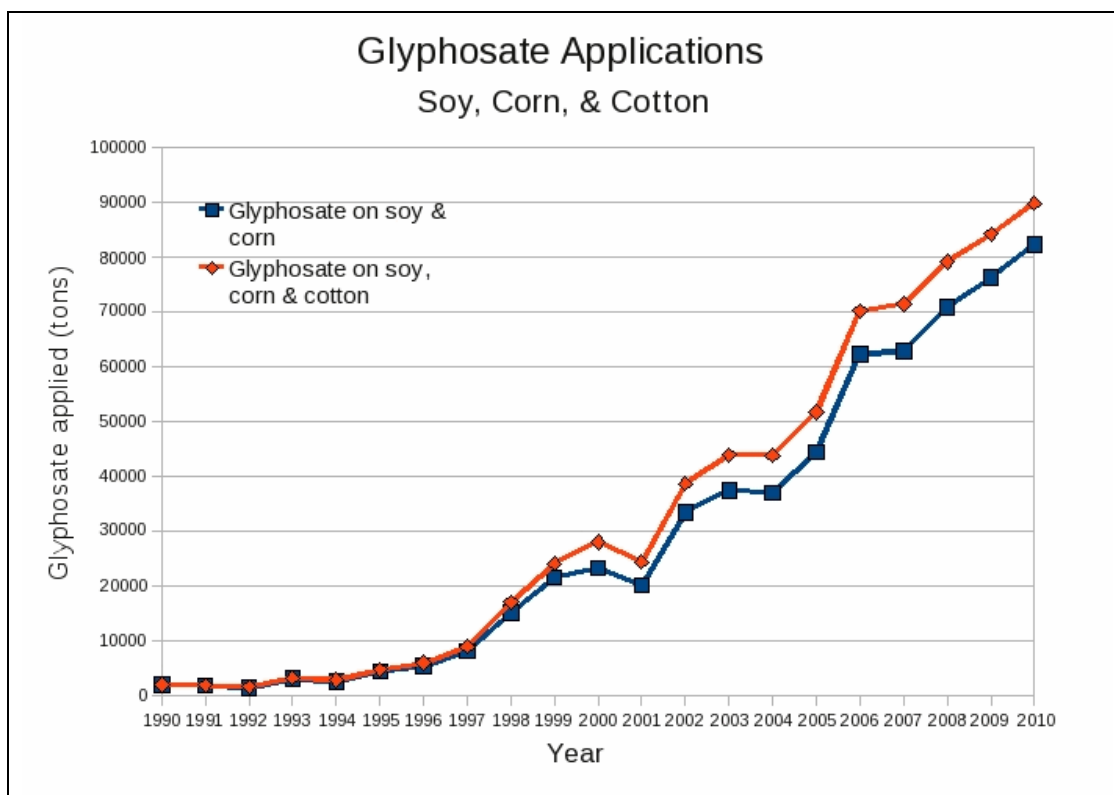
Myeloma: European Age-Standardised Incidence Rates, male and females, Great Britain, 1975-2011
*Prepared by Cancer Research UK.*¹⁵⁵

¹⁵⁴ <http://www.cancerresearchuk.org/cancer-info/cancerstats/types/liver/incidence/#trends>

¹⁵⁵ <http://www.cancerresearchuk.org/cancer-info/cancerstats/types/myeloma/incidence/#trends>

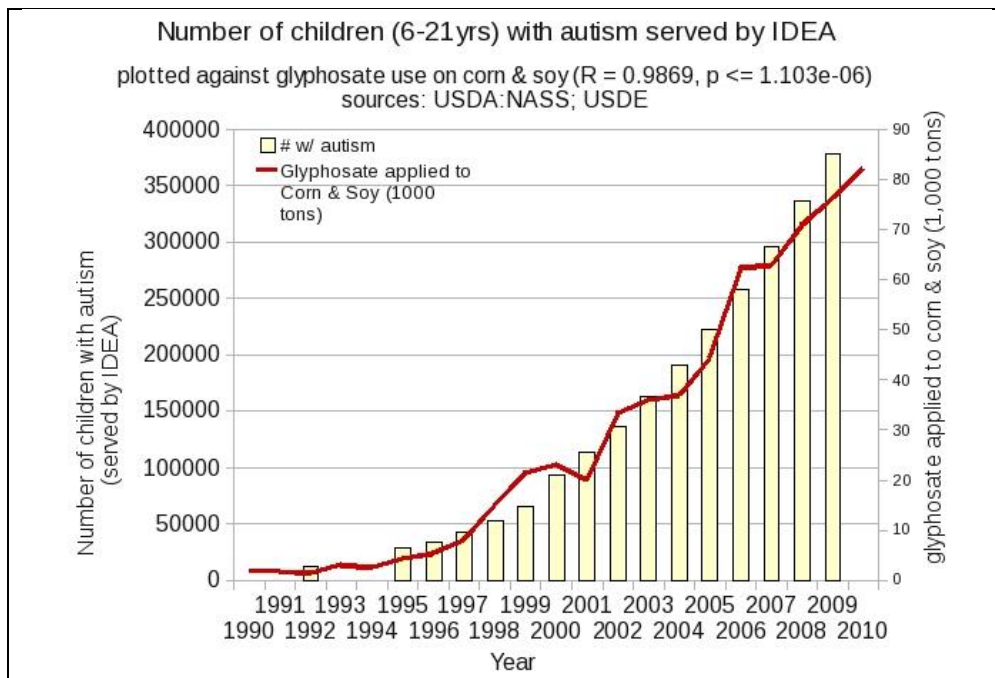


Anal cancer: European Age-Standardised Incidence Rates, male and females, Great Britain, 1975-2011
 Prepared by Cancer Research UK.¹⁵⁶

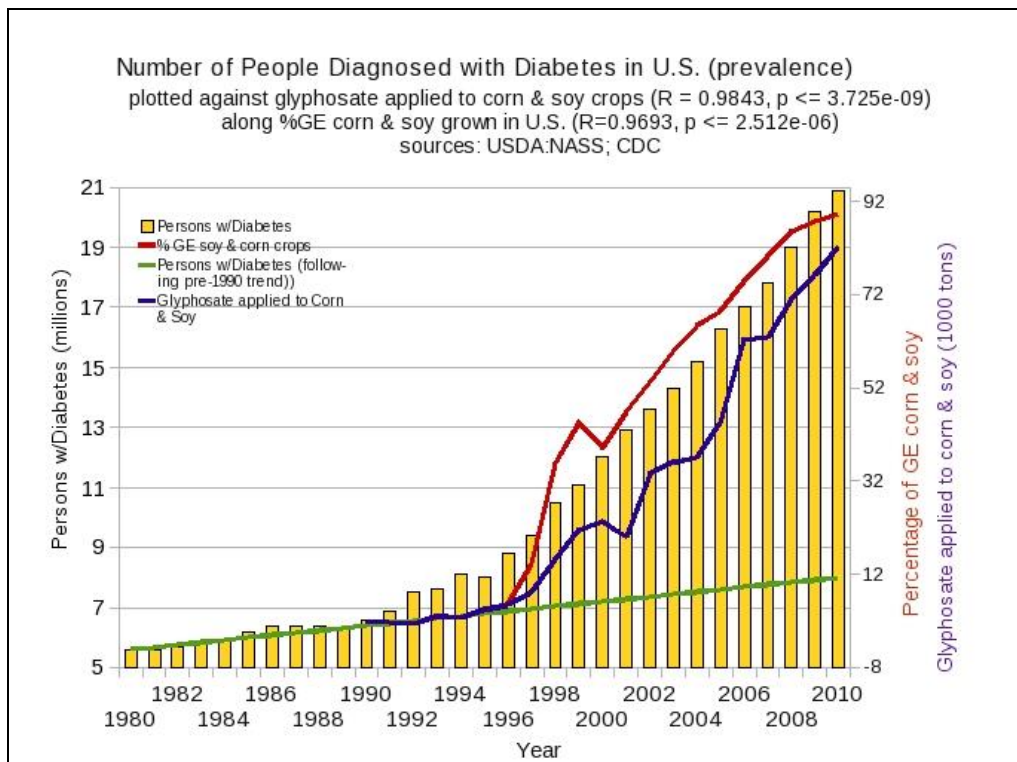


US figures for Glyphosate applications to soy, corn and cotton. By kind permission of Dr Nancy Swanson.

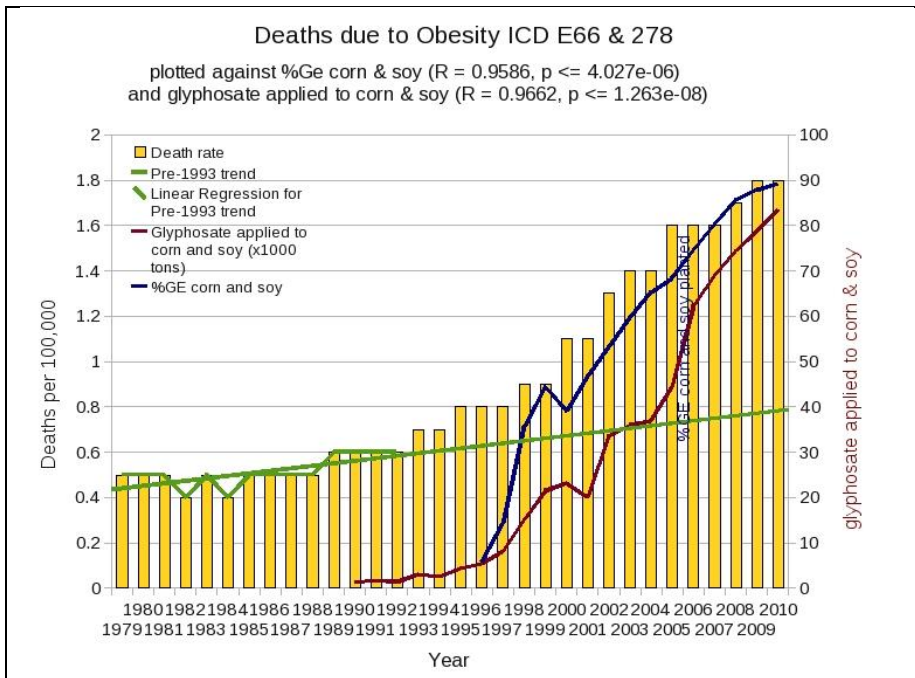
¹⁵⁶ <http://www.cancerresearchuk.org/cancer-info/cancerstats/types/anal-cancer/Incidence/#Trends>



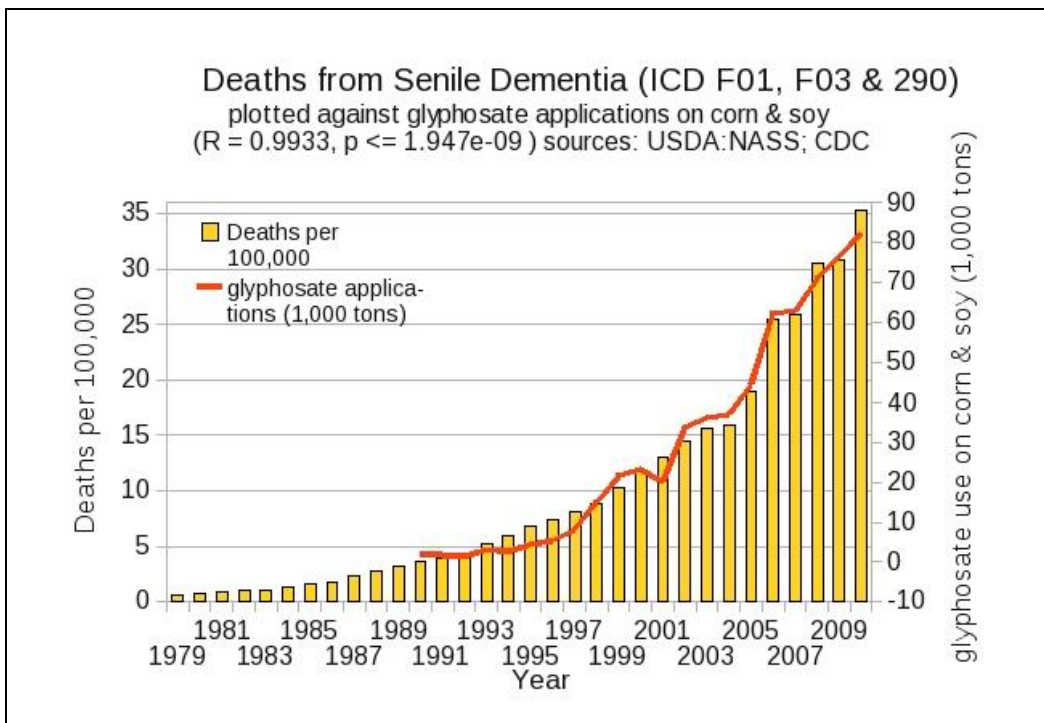
Number of children with autism plotted against glyphosate use on GE corn and soy. Autism data were obtained from the U.S. Department of Education, which keeps track of school age children receiving services under the Individuals with Disabilities Education Act (IDEA). This plot is shown using data from USDE for the number of autistic children receiving services. By kind permission of Dr Nancy Swanson.



US data for % GE corn and soy crops planted and glyphosate applied plotted against the number of people diagnosed with Diabetes in US (prevalence). Crop and glyphosate data from the United States Department of Agriculture; diabetes data from U.S. Centers for Disease Control (CDC).



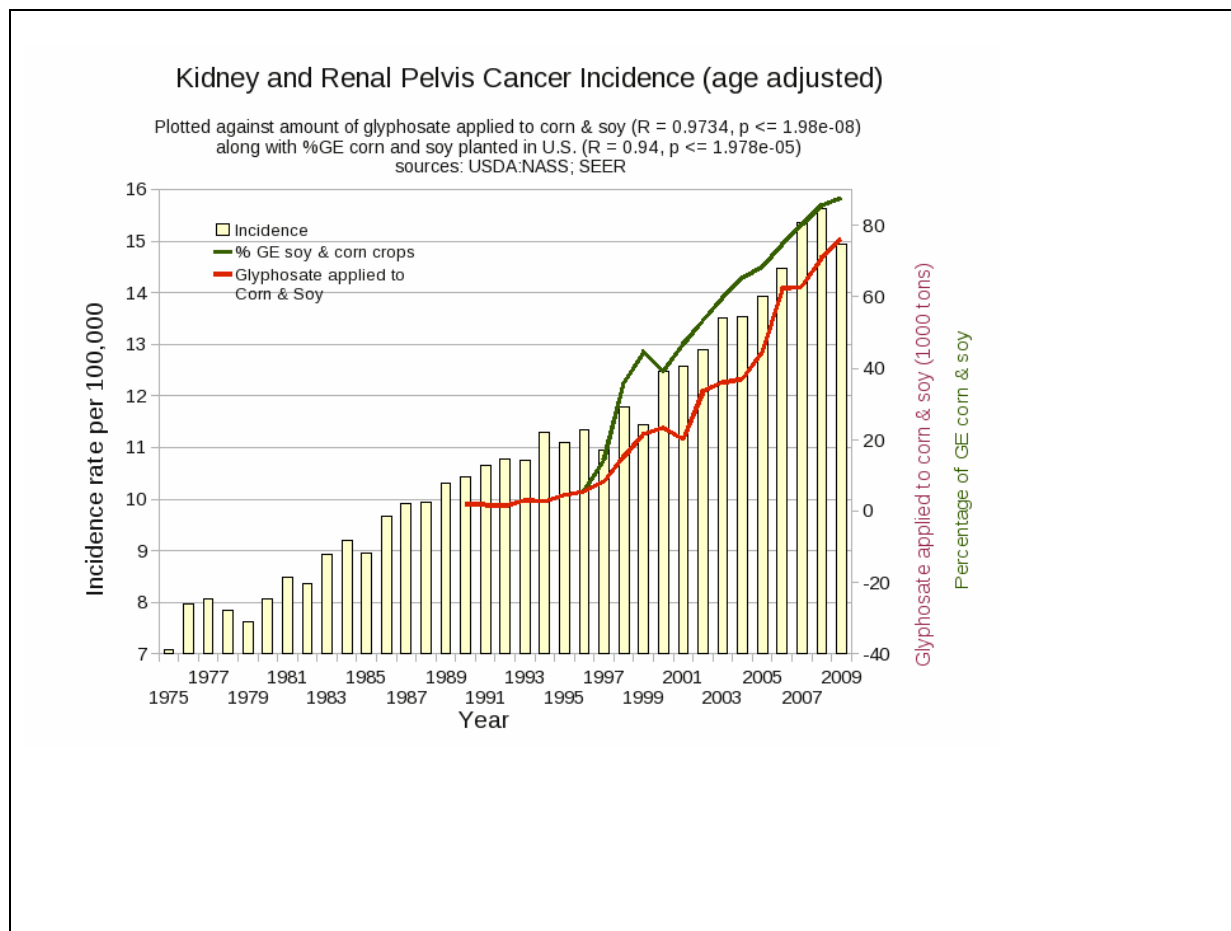
US data for % GE corn and soy crops planted and glyphosate applied to corn & soy plotted against % of U.S. population who are obese (BMI 30.0-99.8). Crop and glyphosate data from the USDA; obesity data from U.S. CDC. By kind permission of Dr Nancy Swanson.



Deaths per 100,000 from Senile Dementia plotted against glyphosate applications on corn and soy. Data from USDA and CDC. By kind permission of Dr Nancy Swanson.

	Parts per million (ppm)	
Ingredient	GM corn	Non-GM corn
Glyphosate	13	0
Formaldehyde	200	0
Nitrogen	7	46
Phosphorus	3	44
Potassium	7	113
Calcium	14	6 130
Magnesium	2	113
Sulphur	3	42
Manganese	2	14
Iron	2	14
Zinc	2.3	14.3
Copper	2.6	16
Molybdenum	0.2	1.5
Boron	0.2	1.5
Selenium	0.6	0.3
Cobalt	0.2	1.5

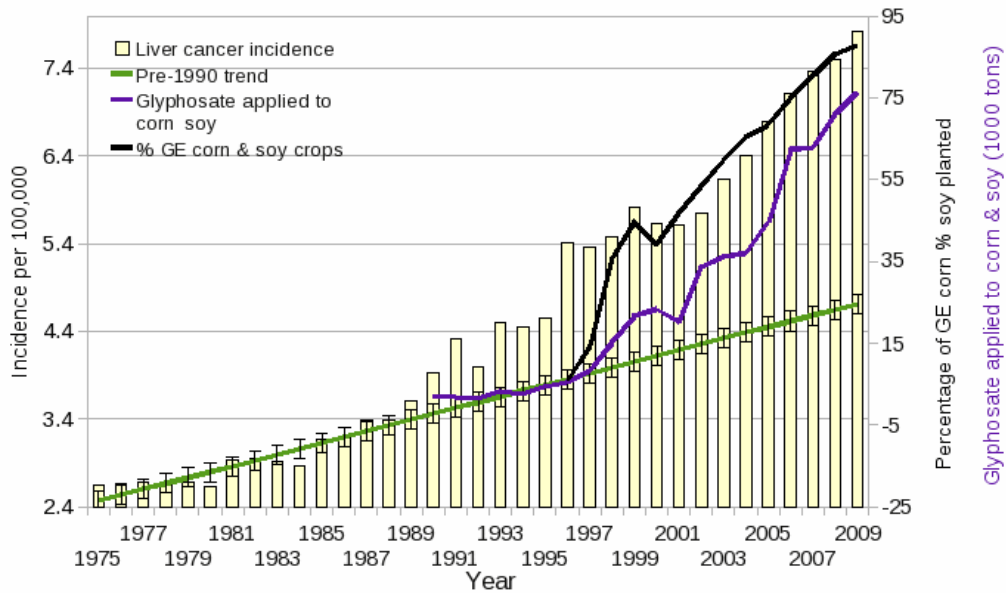
The results of a comparison of GM and non-GM corn from adjacent Midwest fields in the US that first appeared on the Moms Across America March website are reproduced in the Table.¹⁵⁷



¹⁵⁷ http://www.i-sis.org.uk/Stunning_differences_of_GM_from_non_GM_corn.php

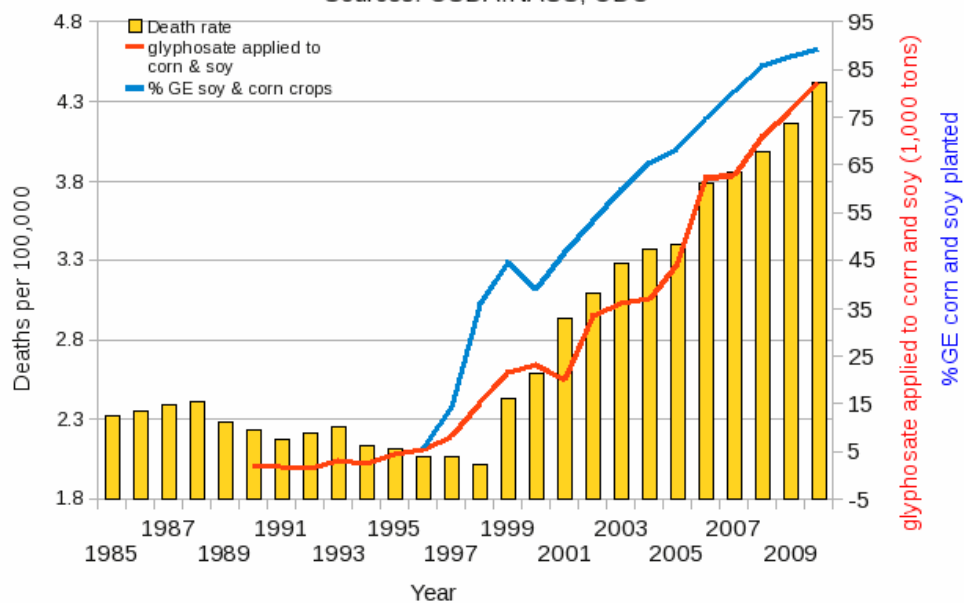
Liver and Intrahepatic Bile Duct Cancer Incidence (age adjusted)

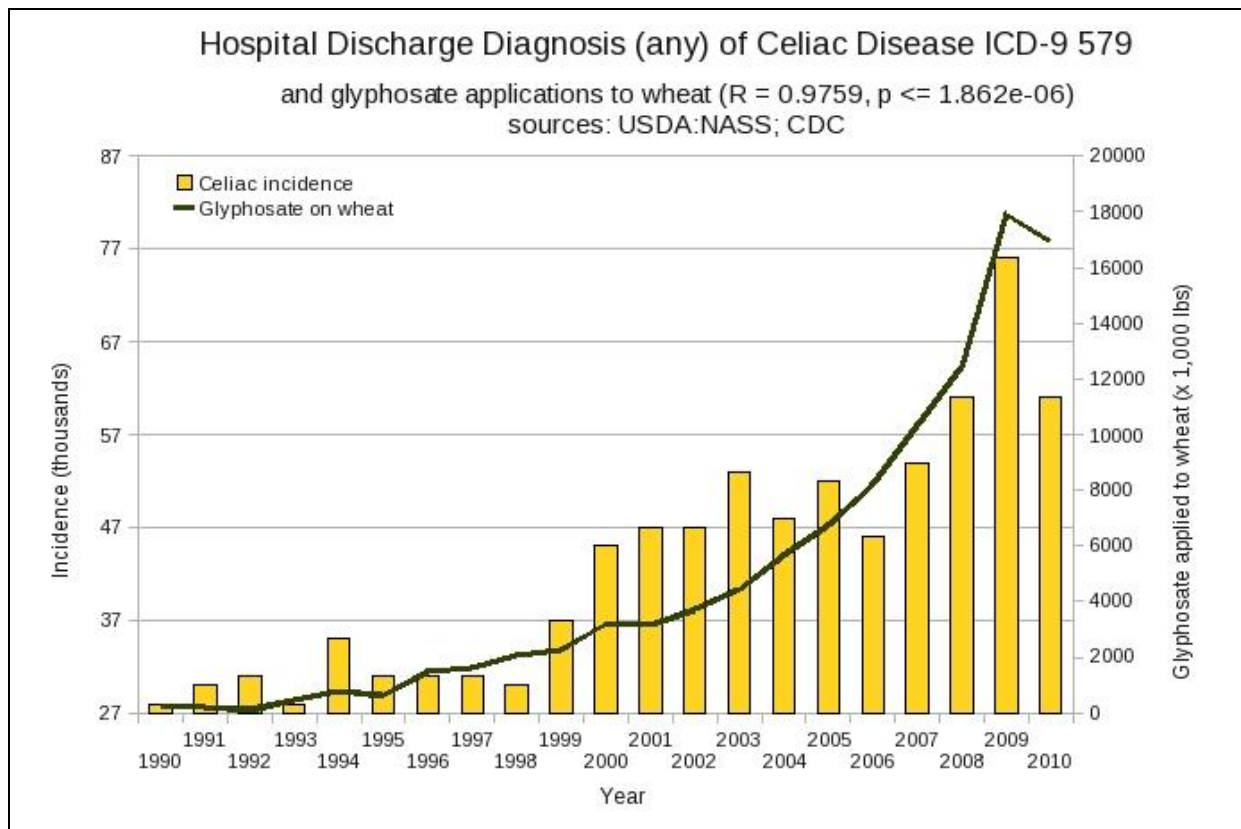
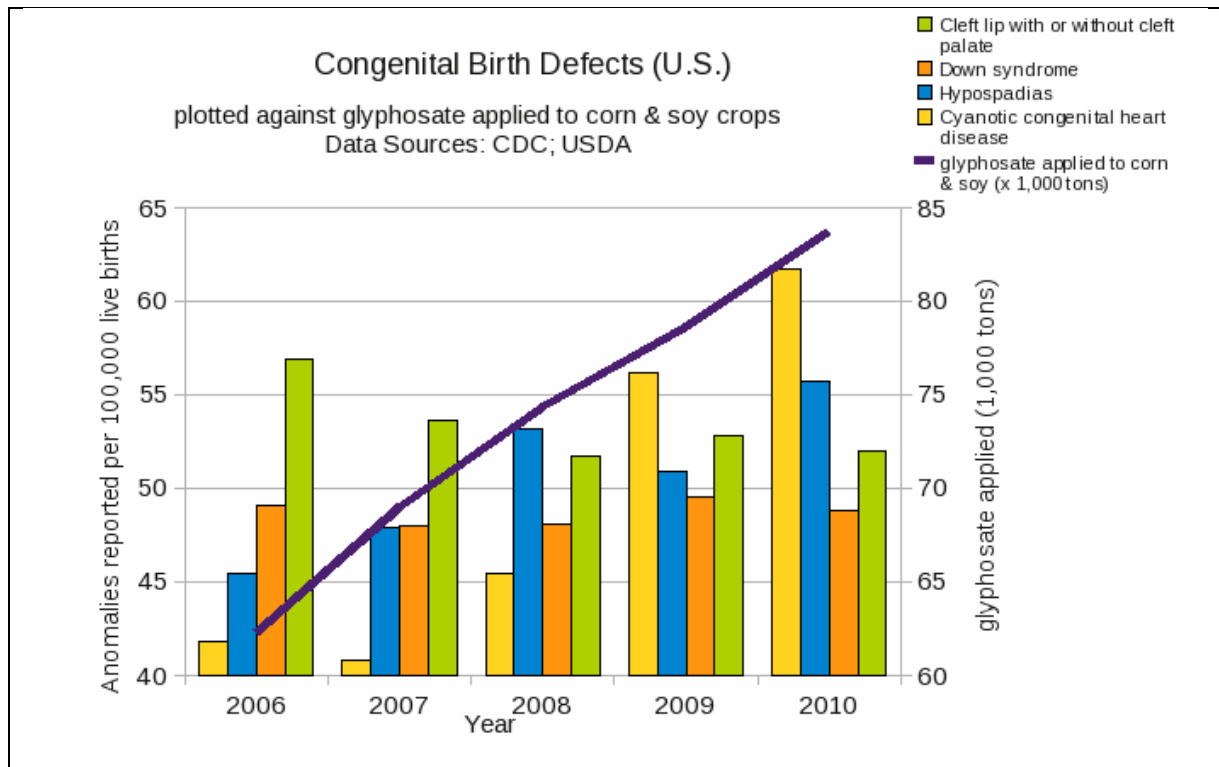
plotted against glyphosate applied to corn & soy ($R = 0.9596$, $p \leq 4.624e-08$)
 along with %GE corn & soy planted in U.S. ($R = 0.9107$, $p \leq 5.402e-05$)
 sources: USDA:NAS; SEER



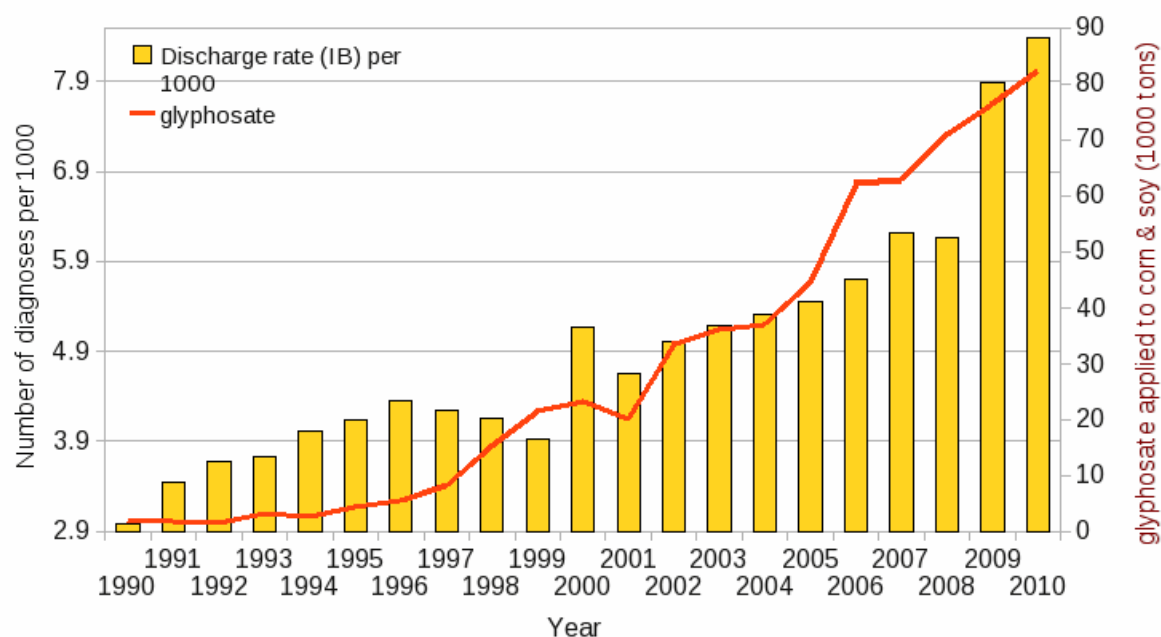
Age Adjusted End Stage Renal Disease Deaths (ICD N18.0 & 585.6)

plotted against %GE corn & soy planted ($R = 0.9578$, $p \leq 4.165e-06$)
 and glyphosate applied to corn & soy ($R = 0.9746$, $p \leq 7.244e-09$)
 Sources: USDA:NASS; CDC



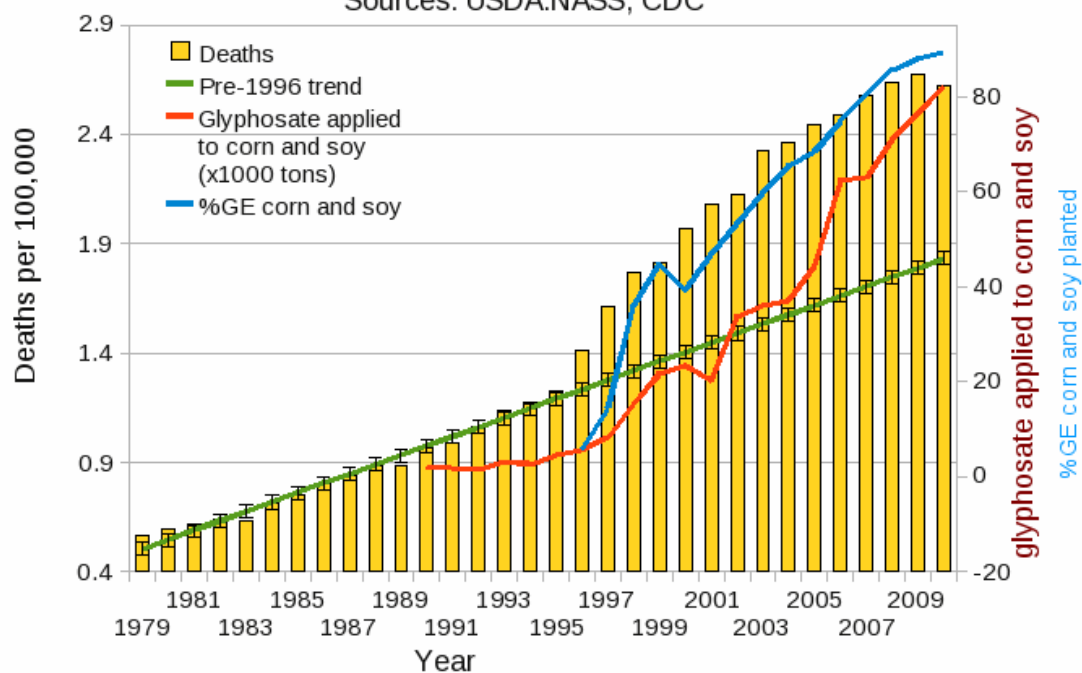


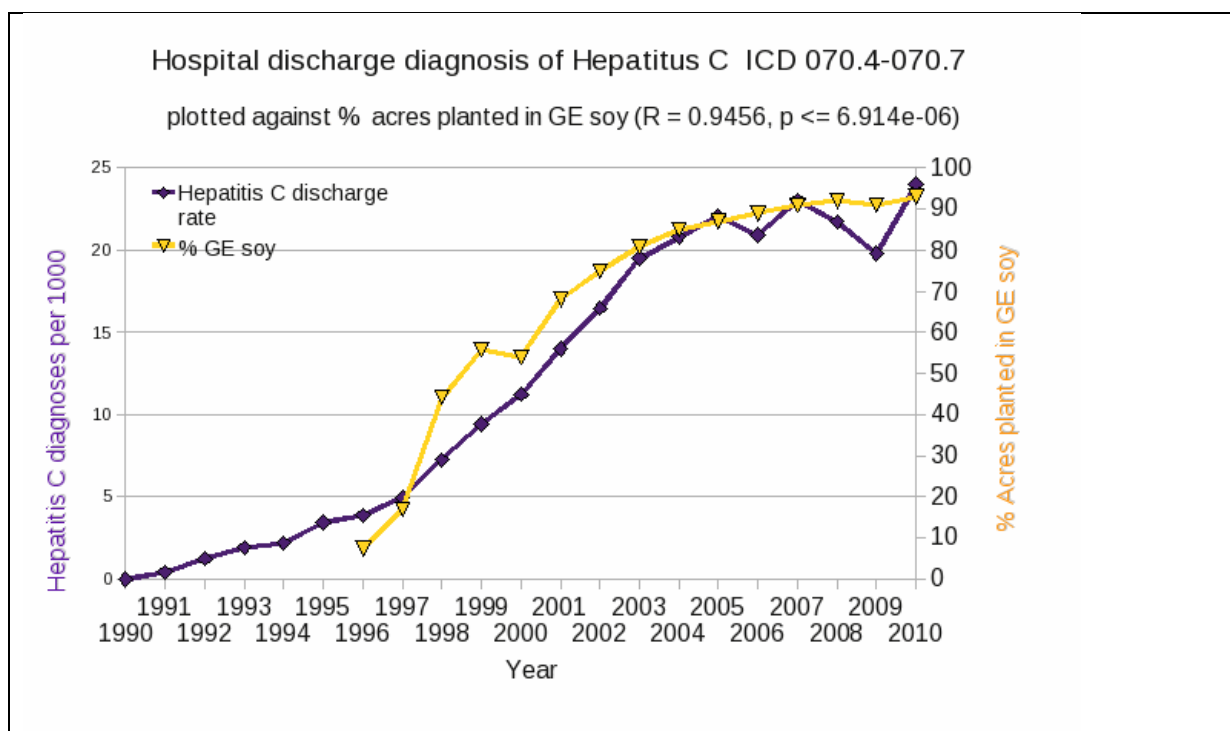
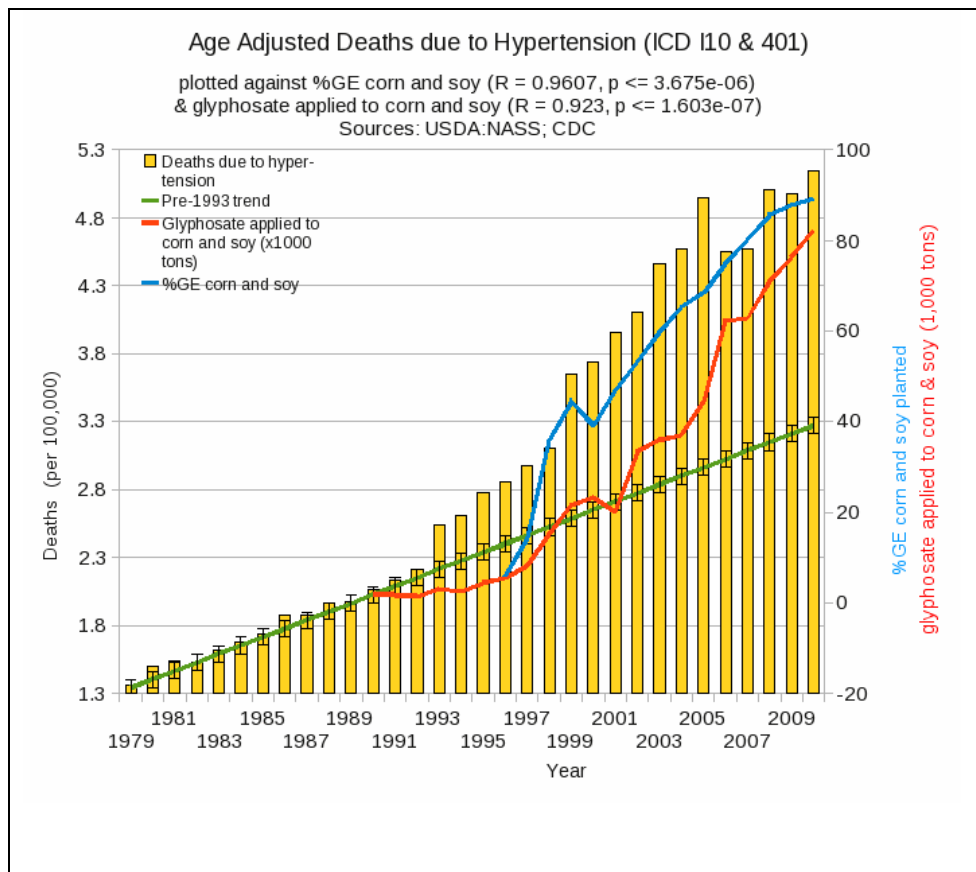
Hospital discharge diagnoses (any) of Inflammatory Bowel disease
(Crohn's and Ulcerative Colitis ICD 555 & 556)
plotted against glyphosate applied to corn and soy ($R = 0.9378$, $p \leq 7.068e-08$)
Sources: USDA & CDC



Age Adjusted Deaths due to Stroke (ICD I62.9 & 432.9 hemorrhage, non embolic)

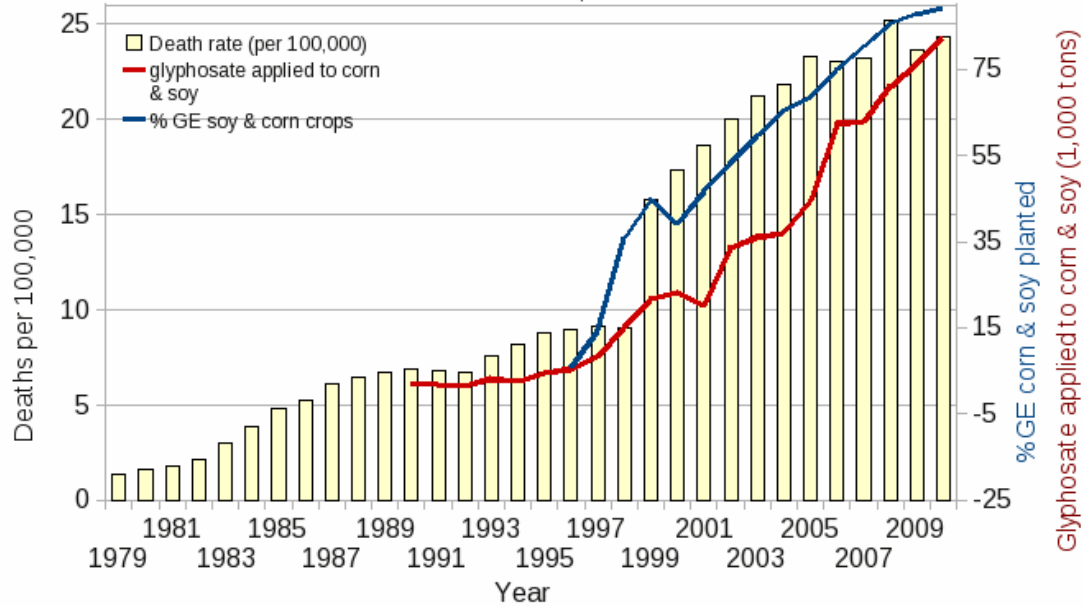
Plotted against %GE corn and soy ($R = 0.9827$, $p \leq 1.354e-06$)
& glyphosate applied to corn and soy ($R = 0.9246$, $p \leq 1.471e-07$)
Sources: USDA:NASS; CDC





Age Adjusted Deaths from Alzheimer's (ICD G30.9 & 331.0)

Plotted against glyphosate use ($R = 0.917$, $p \leq 2.205e-07$) &
 %GE crops planted ($R = 0.9373$, $p \leq 9.604e-06$)
 sources: USDA:NASS; CDC



Age Adjusted Deaths from Parkinson's Disease (ICD G20 & 332.0)

plotted against glyphosate use on corn & soy ($R = 0.8754$, $p \leq 1.631e-06$)
 and percent GE corn & soy planted ($R = 0.9516$, $p \leq 5.398e-06$)
 sources: USDA:NASS; CDC

