

Open Letter to David Coggon and Alan Boobis

Dear David

In 2011 you said that you belonged to the Hampshire Wildlife Trust. Do you still belong and have you noticed the reduction of butterflies, bees and birds in 2019? The IPBES Report says that loss of biodiversity is a bigger threat to humans than climate change.¹ [Press release: Dangerous Declines: 'Unprecedented' Species Extinction Rates 'Accelerating'](#).

Perhaps you have been too busy with all your pesticide committees? I see that you are a member of Science Advice for Policy by European Academies (SAPEA). Have you have read my letter asking why you want to increase pesticide use for the industry? The European Commission has authorised 500 pesticides for use, double the number 10 years ago. As you can see from my letter there are far too many synthetic chemicals in the world and few of them have been properly tested.

In 2011 I asked you if you had any grandchildren and weren't you worried about their future? I made a mistake with glyphosate...its not the first generation that is affected, but the second and third generations. The transgenerational pathologies observed include prostate disease, obesity, kidney disease, ovarian disease, and parturition (birth) abnormalities.² Observations suggest the generational toxicology of glyphosate needs to be considered in the disease etiology of future generations.

The UK Science Media Centre is funded by industry. Colin Macilwain, a science policy writer from Edinburgh who has worked as a reporter and an editor from both sides of the Atlantic³ wrote about plans to replicate Britain's Science Media Centre (SMC) in the United States, which he said was '*fraught with danger.*' He said: "*Despite the fears of the SMC founders, the British press — led by the BBC, which treats the Confederation of British Industry with the deference the Vatican gets in Rome — is overwhelmingly conservative and pro-business in its outlook. It is quite unperturbed by the fact that SMC sponsors include AstraZeneca, BP, Coca-Cola, L'Oreal, Monsanto, Syngenta (as well as Nature Publishing Group) but not a single environmental non-governmental organization (NGO) or trade union.*" [As a result, the UK media is silent about pesticides.](#)

They wouldn't comment on the roles you and Professor Alan Boobis played in pesticide registration as successive Chairmen of the [Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment \(COT\)](#). You were Chairman from 2008-2015. Why did Monsanto ask for the UK to be the Rapporteur Member State for aspartame? It has been approved for use in Britain since 1982. For the first 16 years the Federal Drug Administration (FDA) banned it. [Aspartame was shown by FDA scientists to cause brain tumours, epilepsy and neurotoxic effects.](#) The late FDA toxicologist, Dr Adrian Gross, confirmed to congress that it was highly neurotoxic (1985, Senate) and that aspartame violated the Delaney Amendment because it caused brain tumors and brain cancer. Many independent researchers have confirmed its dangers but industry studies of course claim it is safe.

In 2007 a Review was published in *Nature*: [Direct and indirect cellular effects of aspartame on the brain.](#)⁴ "*Aspartame is composed of phenylalanine (50%), aspartic acid (40%) and methanol (10%). Phenylalanine plays an important role in neurotransmitter regulation, whereas aspartic acid is also thought to play a role as an excitatory neurotransmitter in the central nervous system. Glutamate, asparagines and glutamine are formed from their precursor, aspartic acid. Methanol, which forms*

¹ <https://www.ipbes.net>

² <https://www.nature.com/articles/s41598-019-42860-0>

³ <https://www.nature.com/news/two-nations-divided-by-a-common-purpose-1.10224?nc=1376335775294>

⁴ <http://www.nature.com/ejcn/journal/v62/n4/full/1602866a.html>

10% of the broken-down product, is converted in the body to formate, which can either be excreted or can give rise to formaldehyde, diketopiperazine (a carcinogen) and a number of other highly toxic derivatives."

Why did you and EFSA re-approve Monsanto's toxic artificial sweetener aspartame in 2013?

"At its meeting on 29 October 2013, the Committee on Toxicity of Chemicals in foods (CoT) discussed a paper, describing results from a study led by scientists at Hull York Medical School": CoT POSITION PAPER ON A DOUBLE-BLIND RANDOMIZED CROSSOVER STUDY OF ASPARTAME.⁵ 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 acceptable since the results presented did not indicate any need for action to protect the health of the public." EFSA also re-evaluated the safety of aspartame at the same time.⁶ As a result, it concluded in December 2013 that 'aspartame and its breakdown products are safe for human consumption at current levels of exposure'.

Independent scientist Erik Millstone Professor in Science & Technology Policy, Sussex University sent a 67-page detailed response to the Head of EFSA 'Food Ingredients and Packaging' Unit and the Senior Scientific Officer.⁷ He strongly disputed their re-assessment. EFSA ignored his response, just as the US EPA ignored evidence from Dr Betty Martini and Dr John Olney.⁸

In 2013, at the same time as EFSA and COT said that aspartame was safe, the industry-funded UK Science Media Centre published an expert reaction.⁹

Catherine Collins, Principal Dietitian at St George's Hospital NHS Trust, said:

"For those contemplating the post-Christmas bulge, there's yet more reassurance from EFSA that aspartame (E951), the calorie-free sweetener made from amino acids (the building blocks of protein) is totally safe for humans – both in terms of its chemical structure, and in how it's metabolised when we consume it. Aspartame has been the sweetener with the biggest 'conspiracy theory' stories ever-ranging from behaviour issues in children to liver damage and cancer – all totally disproven, yet again, by this detailed scientific review published today. For those of us battling the bulge during Christmas and beyond, reaching for the diet squash and fizzy drinks will save almost 200kcal a serving compared with the full sugar version – and is kinder to teeth! Cheers!"

From time to time, journalists and scientists are called upon to cast doubt on aspartame's health benefits and safety¹⁰ and call for more science.¹¹

Prof Alan Boobis is an expert on Science Advice for Policy by European Academies (SAPEA).

This is a group allied with the agrochemical industry and is fighting for higher pesticide exposure. Jean-Claude Juncker the President of the European Commission, who against a petition from more than 1.5 million European Citizens, re-authorized glyphosate in December 2017 for a further 5 years. He set up the Science Advisory Mechanism (SAM) with the aim of putting industry-friendly personnel on the Committees.

Alan, you have been Chairman of the UK Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment since 2015 and were reappointed for 3 years in April 2018 - 2021.

In that case, why have we got weed killer and AMPA in oat-based cereals marketed for children?

Shockingly high levels of weed killer in UK breakfast cereals

⁵ <http://cot.food.gov.uk/pdfs/cotposponaspar.pdf>

⁶ <http://www.food.gov.uk/news-updates/news/2013/dec/efsa-aspartame#.UuAtV3xFDcs>

⁷ http://sro.sussex.ac.uk/43821/1/EM_Letter_to_EFSA_on_Aspartame_22Feb2013.pdf

⁸ <http://www.scribd.com/doc/6669992/Dr-John-Olney-Statement-Aspartame-1987> Dr. John Olney's letter to the Senate in 1987.

⁹ <http://www.sciencemediacentre.org/expert-reaction-to-efsa-risk-assessment-of-aspartame/> Dec 10 2013

¹⁰ <https://www.theguardian.com/society/2019/jan/02/no-evidence-of-sugar-substitutes-health-benefits-finds-study>

¹¹ <https://www.bmj.com/content/364/bmj.k5005.full>

We read an article in the UK *Guardian* about breakfast cereals in the US having weed killer in oat-based cereals. The UK *Guardian* reported: “There was no indication that the claims related to products sold outside the US.” In view of this statement by the *Guardian*, we sent samples of four oat-based breakfast cereals marketed for children in the UK to the [Health Research Institute, Fairfield, Iowa](#), an accredited laboratory for glyphosate testing. [Kellogg No added sugar granola](#) with apricot and pumpkin seeds Barley Flakes 27% Oats 23% Rye 13% Wheat flour Oat flour; [Quaker Oat so Simple](#): Quaker Whole Grain Rolled Oats; [Weetabix Oatibix](#) 100% wholegrain oats; [Nestle Multigrain Cheerios](#): Whole Grain Oat Flour 29.6% Whole Grain Wheat 29.6% Whole Grain Barley Flour 17.9% Whole Grain Corn Flour 2.1% Whole Grain Rice Flour 2.1%.

Dr Fagan the Director says: “These results are consistently concerning. The levels consumed in a single daily helping of any one of these cereals, even the one with the lowest level of contamination, is sufficient to put the person’s glyphosate levels above the levels that cause fatty liver disease in rats (and likely in people).

Type of breakfast cereal marketed for children Product description	Glyphosate level ng/g	AMPA ng/g	Effective glyphosate level ng/g
Kelloggs No added sugar granola with Apricot & pumpkin seeds	499.90	ND	499.90
Quaker/Oat So simple/Original Microwaveable Oats	464.23	24.04	500.28
Weetibix Oatibix 100% wholegrain oats	318.85	16.96	344.28
Nestle Multigrain Cheerios Whole Grain Oat Flour 29.6% Whole Grain Wheat 29.6% Whole Grain Barley Flour 17.9% Whole Grain Corn Flour 2.1% Whole Grain Rice Flour 2.1%.	137.29	ND	137.29

Alan Boobis claimed he had no conflicts of interest, but *The Guardian’s* European Environment Editor showed that his organisation had received industry money

Professor Alan Boobis, who claimed he had no conflicts of interest, is Vice President of the International Life Science Institute (ILSI) Europe, an organisation that had received money from both Monsanto and CropLife International. The following report was from *Guardian* journalist Arthur Neslen.¹² “A UN panel that on Tuesday ruled that glyphosate was *probably not carcinogenic to humans* has now become embroiled in a bitter row about potential conflicts of interests. It has emerged that an institute co-run by the chairman of the UN’s joint meeting on pesticide residues (JMPR) received a six-figure donation from Monsanto, which uses the substance as a core ingredient in its bestselling Roundup weedkiller. *Professor Alan Boobis*, who chaired the UN’s joint *FAO/WHO meeting on glyphosate*, also works as the Vice-president of the International Life Science Institute (ILSI) Europe. The co-chair of the sessions was Professor Angelo Moretto, a board member of ILSI’s Health and Environmental Services Institute, and of its *Risk21 steering group* too, which Boobis also co-chairs. In 2012, the ILSI group took a \$500,000 (£344,234) donation from Monsanto and a \$528,500 donation from the industry group CropLife International, which represents *Monsanto, Dow, Syngenta and others*, according to documents obtained by the US right to know campaign.”

Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and the WHO Core Assessment Group Rome, Italy, 20–29 September 2004¹³

¹² <https://www.theguardian.com/environment/2016/may/17/unwho-panel-in-conflict-of-interest-row-over-glyphosates-cancer-risk>

¹³

https://apps.who.int/iris/bitstream/handle/10665/43624/9241665203_eng.pdf;jsessionid=B0AAD3975D65BB30FFFE902DD40DF27C?sequence=1

When Glyphosate was reassessed in 2004, Professor Alan Boobis was also Chairman of the UN's JMPR meeting on pesticide residues.

The presentation on re-assessment of glyphosate data was done by two members of the German Rapporteur Member State Federal Institute of Risk Assessment (BfR) Dr Rudolf Pfeil and Dr Lars Niemann and two other members of the BfR were present Dr Roland Solecki and Dr Ursula Banasiak. Why did the BfR declare beforehand that since they carried out the original work it would be improper for them to be involved in the JMPR discussions?

On page 98, the Ridley and Mirly paper on ¹⁴C labelled glyphosate showed it was distributed to every organ in the body. So why did [Dan Goldstein](#), Senior Science Fellow and Lead, Medical Sciences and Outreach, Monsanto on Friday, 12/20/2013 3:16 pm: claim: "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)¹⁴ and refer back to the 2002 (sic) assessment?

Page 98 Table 3. Mean tissue concentration of radioactivity (ppm) at 168 h in rats given ¹⁴C-labelled glyphosate as single or repeated doses. Glyphosate was present in whole blood, liver, brain, kidney, spleen, lung, heart, testes/ovary, stomach, small intestine, colon, bone, bone marrow, abdominal muscles, shoulder muscles.

Conclusions of the UN's JPMR meeting

Page 158 *In view of the absence of a carcinogenic potential in animals and the lack of genotoxicity in standard tests, the Meeting concluded that glyphosate is unlikely to pose a carcinogenic risk to humans.*

Page 159 *The Meeting concluded that glyphosate is not teratogenic. The Meeting concluded that the existing database on glyphosate was adequate to characterize the potential hazards to fetuses, infants, and children.*

On the basis of the new toxicological data, the present Joint Meeting concluded that AMPA is of no greater toxicological concern than its parent compound, thus confirming the conclusion of the 1997 JMPR.

In 1994 the Joint FAO/WHO/JMPR Panel had granted Monsanto increased Maximum Residue Levels (MRLs) for glyphosate on soya (from 5 mg/kg to 20 mg/kg) and soya bean fodder (from 20 mg/kg to 200 mg/kg).¹⁵

European Food Safety Authority Reasoned Opinions increases MRLs at the request of industry (Monsanto in this case, to 100 times the previously authorised MRL)

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/kg¹⁶ (i.e. 100 times: January 2012). EFSA had granted similarly elevated MRLs for glyphosate on wheat and GM soya.

On December 12th 2017 the EU Commission relicensed glyphosate for 5 years on the basis of ECHA's classification that glyphosate was non-carcinogenic. The British Government voted with the Commission, but did they read ECHA's full classification?

"ECHA's Committee for Risk Assessment (RAC) agrees to maintain the current harmonised classification of glyphosate as a substance causing serious eye damage and being toxic to aquatic life"

¹⁴ http://ec.europa.eu/food/plant/protection/evaluation/existactive/list1_glyphosate_en.pdf

¹⁵

http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/JMPR/Evaluation94/glyphos.pdf

¹⁶ <http://www.efsa.europa.eu/en/efsajournal/pub/2550.htm>

with long-lasting effects. RAC concluded that the available scientific evidence did not meet the criteria to classify glyphosate as a carcinogen, as a mutagen or as toxic for reproduction.”¹⁷

European Court of Justice classified the use of pesticides as ‘emissions’ (the same as diesel)

The European Court of Justice found EFSA's decision to be in breach of EU rules on transparency¹⁸

The European Court of Justice (ECJ) has ordered the European Food Safety Authority (EFSA) to release all of the secret carcinogenicity and toxicity pesticide industry studies on glyphosate to the general public, in a huge legal victory for public health protection.

Specifically, in its ruling the Court stated, firstly, that the interest in public access to information which relates to the release of chemicals into the environment overrides the protection of commercial interests.

Secondly, the Court recognised that by its use, glyphosate is intended to be discharged into the environment. Therefore, according to the Court *"its foreseeable emissions cannot, therefore, be regarded as purely hypothetical. In any event, glyphosate emissions cannot be classified as merely foreseeable emissions."* In particular, according to the Court, glyphosate emissions into the environment are a reality, since the active substance *"is present particularly as residues in plants, water and food."*

In that respect, the General Court notes that glyphosate has been listed as an active substance since 1 July 2002. Since that date, glyphosate has been authorised in Member States and has actually been used in plant protection products. Glyphosate is one of the most widely used herbicides in the EU. Glyphosate emissions into the environment are therefore a reality. That active substance is present particularly as residues in plants, water and food. Hence, the requested studies are studies which are intended to establish the carcinogenicity or toxicity of an active substance which is actually present in the environment.

Air Pollution and Noncommunicable Diseases: A Review by the Forum of International Respiratory Societies’ Environmental Committee, Part 1: The Damaging Effects of Air Pollution Part 2: Air Pollution and Organ Systems

In *Chest Journal*: The Official Publication of the American College of Chest Physicians

Extracts *Air pollution is defined as any substance in the air that may harm humans, animals, vegetation, or materials.*¹⁹ *Pollutants come from various sources, and each can have differing characteristics depending on the composition, source, and conditions under which they were produced. Common gases include the sulfur oxides (mainly sulfur dioxide [SO₂]), nitrogen oxides (mainly nitric oxide and nitrogen dioxide [NO₂]), reactive hydrocarbons (often referred to as volatile organic compounds), and carbon monoxide (CO). They are released directly into the atmosphere, usually from industrial or transportation sources, and are called “primary pollutants.” Gaseous and particle pollutants can also form in the atmosphere, largely from the primary pollutants and are called “secondary pollutants.” For example, O₃ is formed from nitrogen oxides and hydrocarbons in the atmosphere; sulfuric acid is produced from atmospheric sulfur; and ammonium nitrate aerosols are created from atmospheric nitrogen oxide gases. The damage to human tissue by gases depends on their water solubility, concentration, ability to oxidize tissue, and the affected person’s susceptibility. SO₂ is highly soluble in water and largely damages the upper airways and skin, whereas NO₂ and O₃ are less soluble and therefore can penetrate deeper into the lung. CO is highly soluble and non-irritating and readily passes into the bloodstream. Its toxicity mainly results from*

¹⁷ <https://echa.europa.eu/-/glyphosate-not-classified-as-a-carcinogen-by-echa>

¹⁸ https://sustainablepulse.com/2019/03/07/european-court-of-justice-orders-eu-regulators-to-publicly-release-secret-industry-glyphosate-studies/#.XJ8v_i10dp8

¹⁹ <https://www.theguardian.com/environment/ng-interactive/2019/may/17/air-pollution-may-be-damaging-every-organ-and-cell-in-the-body-finds-global-review>

successfully competing with oxygen in binding to hemoglobin, which results in tissue hypoxia. Its effects are acute: a 2-day increase of mean CO levels of 1 mg/m³ was associated with a 1.2% increase in total deaths in a large European study. Nitric oxide also attaches to hemoglobin and other iron-containing proteins, but it generally acts only a short distance from its contact point because of its binding affinity.²⁰

Air Pollution and Noncommunicable Diseases: Part 2: Air Pollution and Organ Systems²¹

Extracts: Although air pollution is well known to be harmful to the lung and airways, it can also damage most other organ systems of the body. It is estimated that about 500,000 lung cancer deaths and 1.6 million COPD deaths can be attributed to air pollution, but air pollution may also account for 19% of all cardiovascular deaths and 21% of all stroke deaths. Air pollution has been linked to other malignancies, such as bladder cancer and childhood leukemia. Lung development in childhood is stymied with exposure to air pollutants, and poor lung development in children predicts lung impairment in adults. Air pollution is associated with reduced cognitive function and increased risk of dementia. Particulate matter in the air (particulate matter with an aerodynamic diameter < 2.5 µm) is associated with delayed psychomotor development and lower child intelligence. Studies link air pollution with diabetes mellitus prevalence, morbidity, and mortality. Pollution affects the immune system and is associated with allergic rhinitis, allergic sensitization, and autoimmunity. It is also associated with osteoporosis and bone fractures, conjunctivitis, dry eye disease, blepharitis, inflammatory bowel disease, increased intravascular coagulation, and decreased glomerular filtration rate. Atopic and urticarial skin disease, acne, and skin aging are linked to air pollution. Air pollution is controllable and, therefore, many of these adverse health effects can be prevented.

Prof Dean Schraufnagel at the University of Illinois at Chicago who led the reviews, said: “Immune cells think a pollution particle is a bacteria, go after it and try to kill it by releasing enzymes and acids. I wouldn’t be surprised if almost every organ was affected. If something is missing [from the review] it is probably because there was no research yet.” This review represents “very strong science” said Dr Maria Neira WHO director of public and environmental health: “It adds to the very heavy evidence we have already. There are more 70,000 scientific papers to demonstrate that air pollution is affecting our health.”

According to Global Chemicals Outlook II, Glyphosate is top of the Top 10 products used on major crops in the United States by volume, 1968 and 2016.²² It is the top of the silent killers because no one dares to mention it. Monsanto would have sued anyone who did. Bayer, which now owns Monsanto, probably would too. As you can see from glyphosate’s reassessment in 2004 by a corrupt group of people,¹⁴ C labelled glyphosate is distributed to every organ of the body.

Glyphosate is the prime candidate because it has multiple actions. It is an herbicide, an antibiotic, a fungicide, an antiprotozoal, an organic phosphonate, a growth regulator, a toxicant, a virulence enhancer and is persistent in the soil. It chelates (captures) and washes out the following minerals: boron, calcium, cobalt, copper, iron, potassium, magnesium, manganese, nickel and zinc.

Continued growth in the pesticide/crop protection industry

Pesticides include herbicides, insecticides, termiticides, nematicides, rodenticides and fungicides. These products are largely used for crop protection in agriculture. Today the industry is valued at over US dollars 50 billion and there are around 600 active ingredients. Herbicides account for approximately 80 per cent of all pesticide use (Phillips McDougal 2018).

²⁰ [https://journal.chestnet.org/article/S0012-3692\(18\)32723-5/fulltext#intraref0005](https://journal.chestnet.org/article/S0012-3692(18)32723-5/fulltext#intraref0005)

²¹ [https://journal.chestnet.org/article/S0012-3692\(18\)32722-3/fulltext#intraref0005](https://journal.chestnet.org/article/S0012-3692(18)32722-3/fulltext#intraref0005)

²²

<https://wedocs.unep.org/bitstream/handle/20.500.11822/28113/GCOII.pdf?sequence=1&isAllowed=y>

Massive amounts of glyphosate used globally

'In 2016, Charles Benbrook reported Trends in glyphosate use in the US and globally: 1974-2014. Between 1994 and 2014 the estimated global use of glyphosate was 8.6 billion kilograms and nearly 0.53 kg/ha (0.47 pounds/acre) on all cropland worldwide.'²³ That doesn't include amenity use.

The impact of exposure to air pollution in China on cognitive performance: what is in the air?²⁴

"Utilizing variations in transitory and cumulative air pollution exposures for the same individuals over time in China, we provide evidence that polluted air may impede cognitive ability as people become older, especially for less educated men. The damage on the aging brain by air pollution likely imposes substantial health and economic costs, considering that cognitive functioning is critical for the elderly for both running daily errands and making high-stake decisions. The damage on the aging brain by air pollution likely imposes substantial health and economic costs, considering that cognitive functioning is critical for the elderly for both running daily errands and making high-stake decisions."

China is the top manufacturer of Glyphosate-based herbicides & the main importer of GMO soy

The China Development Strategy Research Society Committee of Cultural Strategy organized a conference in Beijing, 25/26 July 2014. Food Safety and Sustainable Agriculture Forum to discuss the global harm caused by GMOs and glyphosate-based herbicides. More than 300 people from 13 countries and 5 continents attended. Genetic researchers, university professors, medical doctors, veterinarians, livestock farmers, arable farmers, agricultural consultants, mothers, NGO founders and leaders and social activists from China, Taiwan, U.S.A, Russia, U.K., France, Denmark, Germany, Australia, New Zealand, Argentina, Brazil and Peru. The main problems amongst Chinese workers were Parkinson's Disease, autism and infertility. The Beijing Declaration was signed on 26 July 2014. Translated from the Chinese, it ends: "Mankind has no retreat confronting the threats brought about by the overall proliferation of GM products. Let us take up the holy responsibility and take joint action to protect the health and survival of the human race!"²⁵

Séralini's team finds heavy metals in chemical formulants of GBH that are in our diet

Extract: As with other pesticides, 10–20% of GBH consist of chemical formulants. We previously identified these by mass spectrometry and found them to be mainly families of petroleum-based oxidized molecules, such as POEA, and other contaminants. In this work, we also identified by mass spectrometry the heavy metals arsenic, chromium, cobalt, lead and nickel, which are known to be toxic and endocrine disruptors, as contaminants in 22 pesticides, including 11 G- based ones.²⁶

Environmental toxic metal contaminants and risk of cardiovascular disease: systematic review and meta-analysis²⁷

A meta-analysis published in the BMJ showed: *Exposure to arsenic, lead, cadmium and copper is associated with an increased risk of cardiovascular disease, coronary heart disease and stroke.*

Monsanto's sealed secret studies obtained under FOI from the US EPA

Samsel and Seneff wrote paper IV on Glyphosate: Glyphosate, pathways to modern diseases IV: cancer and related pathologies²⁸ and concluded that: *"significant evidence of tumours was found during these investigations"*. Ridley and Mirly (1988) (for Monsanto) found bioaccumulation of ¹⁴C

²³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5044953/>

²⁴ <http://www.pnas.org/content/early/2018/08/21/1809474115>

²⁵ <https://sustainablepulse.com/2014/08/09/chinese-international-experts-slam-gmos-glyphosate-beijing-conference/#.W4hHjC3Mx0s>

²⁶ https://www.gmoseralini.org/wp-content/uploads/2018/01/Defarge-et-al. TOXREP_2018.pdf

²⁷ <https://www.bmj.com/content/362/bmj.k3310>

²⁸ <http://www.amsi.ge/jbpc/31515/11SA15R.pdf>

labelled glyphosate in Sprague Dawley rat tissues. Residues were present in bone, marrow, blood and glands including the thyroid, testes and ovaries, as well as major organs, including the heart, liver, lungs, kidneys, spleen and stomach (Table 11 Page 127). The eye is included in this list. Table 8 Page 126): Incidence and occurrence of ophthalmic degenerative lens changes by glyphosate. Table 9 Page 126: Data on unilateral and bilateral cataracts (all types) and Y-suture opacities, excluding “prominent Y suture”, following glyphosate exposure to rats: this Stout & Rueker (1990) study was commissioned by Monsanto.

The rate of cataract surgery in England “increased very substantially” between 1989 and 2004 from 173 (1989) to 637 (2004) episodes per 100,000 population.

A 2016 study by the WHO also confirmed that the incidence of cataracts had greatly increased: ‘A global assessment of the burden of disease from environmental risks.’ says that cataracts are the leading cause of blindness worldwide. Globally, cataracts are responsible for 51% of blindness – an estimated 20 million individuals suffer from this degenerative eye disease.²⁹

In the US between 2000 and 2010 the number of cases of cataract rose by 20% from 20.5 million to 24.4 million. It is projected that by 2050, the number of people with cataracts will have doubled to 50 million. A Senior Monsanto scientist had claimed that glyphosate didn’t accumulate but was excreted unchanged from the body³⁰ and referred back to the glyphosate re-assessment in Europe in 2002. However, Monsanto’s secret studies and the 2002 reassessment had revealed otherwise.

A supplementary document submitted to the California Environmental Protection Agency on 16 June 2017 by Anthony Samsel about nitrosamine contaminants of glyphosate causing cancers

Extracts: *“Glyphosate nitrosamine contaminants. There are no safe levels of the N-nitrosamines of glyphosate found in every glyphosate product and which are also produced in vivo.*

The N-nitrosamines of secondary amines are known to be carcinogenic. The nitrosamines of glyphosate are formed on a secondary amine. I now raise the issue of the N-nitrosamines of glyphosate of which there are several, because they are carcinogens and have all been essentially ignored. It appears that Monsanto and the US EPA have hidden the N-nitrosamines of glyphosate from discussion even to the point of editing and redacting data from crucial documents concerning a number of N-nitrosamines of glyphosate. Monsanto glyphosate documents reveal analysis and quantification of five nitrosamines of concern [61]. Out of six lots of Roundup analyzed for NNG, four lots contained NNG residues of 0.61 to 0.78 ppm and two lots had residues from 0.22 to 0.40 ppm NNG. Analysis of six lots of Monsanto Rodeo revealed NNG residues in the range 0.13–0.49.

Glyphosate and AMPA are found to be widespread in soils throughout the EU³¹

Britain was cited as having the second most polluted soil, but glyphosate levels are not yet measured in groundwater in the UK. “A new research study by the European Commission’s Joint Research Centre, the Dutch University of Wageningen and Rikilt laboratories, reveals that among 317 EU soil samples of arable land, 42% contained aminomethyl phosphonic acid (AMPA), the most toxic metabolite of glyphosate, while glyphosate was found in 21% of the soils; 18% of the samples had both. The study was conducted in six crop systems along 11 EU member states comprising soils under different geographical and climatic conditions. **Denmark, the UK and Portugal** are the worst in this spectrum, with the highest detection frequency, while Italy and Greece seem to be the ones using less glyphosate on their crops. However, and most notably, these 2 molecules could be found in every tested member state. **All tested crops presented glyphosate and AMPA residues.**

²⁹

https://apps.who.int/iris/bitstream/handle/10665/204585/9789241565196_eng.pdf;jsessionid=C6B74ED621793B22A3D688FF027CD474?sequence=1

³⁰ <https://gmoanswers.com/ask/hi-does-senior-monsanto-scientist-dan-goldstein-still-maintain-if-ingested-glyphosate-excreted>

³¹ <http://www.sciencedirect.com/science/article/pii/S0048969717327973>

We are in Denmark at present: there are very few bumblebees on our hedge in West Jutland

When we had a very hot dry and windy period, there was a day when the sun was obscured by dust. We could see the topsoil being lifted up from the fields in a dust storm. It was alleged to be sand from the Sahara. But we have seen similar photos of dust from the fields in the east of Funen.

Third trial and largest fine against Monsanto to a couple over Roundup: for the first time the Attorneys were able to reveal Monsanto's criminal strategy for keeping Roundup on the market

A [California](#) jury has ordered Monsanto to pay more than \$2bn to a couple that got cancer after using its weedkiller, marking the third and largest verdict against the company over Roundup.³² A jury in Oakland ruled Monday that [Monsanto](#), now owned by the German pharmaceutical corporation Bayer, was liable for the non-Hodgkin's lymphoma (NHL) cancer of Alva and Alberta Pilliod. The jury ordered the company to pay \$1bn in damages to each of them, and more than \$55m total in compensatory damages (13/05/2019).

Breaking News: Monsanto hit with \$2 billion verdict in 3rd Roundup trial³³

Law360 (May 13, 2019, 5:04 pm EDT). Excerpts: Other experts called by the Pilliods testified that the US EPA approved Roundup, based on fraudulent studies by Industrial Bio-test Laboratories. They said the company kept selling the product, even after the fraud was exposed, and refused for decades to conduct certain studies of its Roundup formula, despite requests from the EPA and its own toxicologist. During closings, the Pilliod's counsel, Brent Wisner, argued that Monsanto spent decades suppressing science linking its product to cancer, by ghost-writing academic articles and feeding the EPA "bad science". He asked the jury to 'punish' Monsanto with a \$1 billion punitive damages award. On Monday 13th May the jury sided with the Pilliods and found Monsanto liable for failure to warn claims, design defect claims, negligence claims and negligent failure to warn claims.

The UK Government and the UK corporate media don't want the British people to know about the US lawsuits, because they want to make money out of GMO Roundup Ready Crops after Brexit. They also want the pharmaceutical corporations to make money out of developing drugs to attempt to cure all the diseases caused by pesticides.

The UK Media failed to report the stormy shareholder's meeting and the losses in Bayer stocks

Unprecedented rows: 55% of shareholders voted to throw Werner Bauman out, because his misjudgement of Monsanto's liabilities caused the value of Bayer's shares to drop in value. *"Bayer's third Roundup court loss comes two weeks after shareholders disavowed Chief Executive Officer Werner Baumann at a meeting in Germany, lambasting his handling of the \$63 billion Monsanto Co. acquisition. The verdict puts the onus on Bayer to alter its defense course and consider a settlement: litigation concerns have eroded Bayer's value by more than 40 percent since the deal was sealed in June. The stock declined 2.3% Tuesday after initially dropping to a seven-year low. Analysts at Bloomberg Intelligence raised their estimate for a settlement value to as much as \$10 billion, up from a peak of \$6 billion."* Graphic.³⁴

Robert F Kennedy Jr. one of the US Attorney's fighting Bayer in the Courts says Roundup causes a constellation of other injuries apart from Non-Hodgkin's Lymphoma

"Perhaps more ominously for Bayer, Monsanto also faces cascading scientific evidence [linking glyphosate](#) to a constellation of other injuries that have become prevalent since its introduction, including [obesity](#), [depression](#), [Alzheimer's](#), [ADHD](#), [autism](#), [multiple sclerosis](#), [Parkinson's](#), [kidney disease](#), and [inflammatory bowel disease](#), [brain](#), [breast and prostate cancer](#), [miscarriage](#), [birth defects](#) and [declining sperm counts](#). Strong science suggests glyphosate is the culprit in the exploding

³² <https://www.theguardian.com/business/2019/may/13/monsanto-cancer-trial-bayer-roundup-couple>

³³ <https://www.law360.com>

³⁴ Bayer Stock Performance, tmsnrt.rs/2E7QGF7

epidemics of celiac disease, colitis, gluten sensitivities, diabetes and non-alcoholic liver cancer which, for the first time, is attacking children as young as 10.

Other actions of Roundup

Researchers peg glyphosate as a potent endocrine disruptor, which interferes with sexual development in children. The chemical compound is certainly a chelator that removes important minerals from the body, including iron, magnesium, zinc, selenium and molybdenum.

Roundup disrupts the microbiome destroying beneficial bacteria in the human gut and triggering brain inflammation and other ill effects.

The public's growing concerns with Roundup are, in part, due to Monsanto's overreaching. For two decades following its licensing in 1974, farmers and gardeners used Roundup as a conventional weedkiller. After Monsanto's introduction of Roundup Ready seeds in the 1990s, farmers began aerial spraying of the herbicide on entire fields, including newly planted corn, canola and soy genetically altered to thrive in the toxic mist that killed all neighboring weeds. Then, around 2006 (in the UK, in 1980³⁵), Monsanto started marketing Roundup as a desiccant to dry up oats and wheat immediately before harvest. For the first time, farmers were spraying the chemical directly on food. Roundup sales rose dramatically to 300 million pounds annually in the U.S., with farmers spraying enough to cover every tillable acre in America with a gallon of Roundup. Glyphosate now accounts for about 50% of all herbicide use in the U.S. About 75% of glyphosate use has occurred since 2006, with the global glyphosate market projected to reach \$11.74 billion by 2023. Never in history has a chemical been used so pervasively. Glyphosate is in our air, water, plants, animals, grains, vegetables and meats. It's in beer and wine, children's breakfast cereal and snack bars and mother's breast milk. It's even in our vaccines.

The Rapid Decline of The Natural World Is A Crisis Even Bigger Than Climate Change. Why aren't pesticides blamed? Because Bayer and Syngenta scientists are pollination experts

A three-year UN-backed study from the Intergovernmental Science-Policy Platform On Biodiversity and Ecosystem Services has grim implications for the future of humanity.³⁶

Industrial farming is to blame for much of the destruction and extinction of nature. We need agriculture systems that regenerate ecosystems not degenerate them.³⁷

"The loss of species, ecosystems and genetic diversity is already a global and generational threat to human well-being. Protecting the invaluable contributions of nature to people will be the defining challenge of decades to come. Policies, efforts and actions – at every level - will only succeed, however, when based on the best knowledge and evidence. This is what the IPBES Global Assessment provides."

– Sir Robert Watson, IPBES Chair.

The only mention of pesticides appears to be: *"Pesticides, including neonicotinoid insecticides, threaten pollinators worldwide, although the long-term effects are still unknown."*

It's a pity Sir Robert didn't take notice of Dr Henk Tennekes' toxicological studies on systemic neonicotinoid insecticides. He said that these chemicals act on the brains of insects (and humans) in an irreversible and time-dependent manner and that they were a 'Disaster in the Making.'³⁸ Instead Sir Robert believed Syngenta and Bayer who said that they were harmless to bees.

Did he invite Dr Christian Maus, Global Pollinator Safety Manager at Bayer CropScience and Dr Helen Thompson, Environmental Safety Officer, Product Safety, Syngenta as experts to author some of the Chapters on Pollination because they had opposed Dr Tennekes?³⁹

³⁵ <http://www.hgca.com/media/185527/is02-pre-harvest-glyphosate-application-to-wheat-and-barley.pdf>

³⁶ <https://www.ipbes.net/news/ipbes-global-assessment-summary-policymakers-pdf>

³⁷ <https://www.awaken.com/2019/03/the-rapid-decline-of-the-natural-world-is-a-crisis-even-bigger-than-climate-change/>

³⁸ <http://www.disasterinthemaking.com/reviews.html>

³⁹ <https://www.ipbes.net/pollination-assessment-experts>

Dr Tennekes has written an Editorial in 2019, describing Bayer's strategy. At the end, he says, "*Maus and Nauen did not retract earlier publications of Bayer experts (Abbink and Mehlhorn) that had asserted irreversibility of receptor binding, and did not declare a conflict of interest, that they were employed by Bayer.*"

He concludes: "*Unwarranted product defense by Bayer and Syngenta may have had catastrophic consequences for the environment.*"⁴⁰

Germany reported 57 different pesticides in one dead bee

Irish beekeeper [Mary Montaut](#) said campaigners were advocating for the banning of a class of pesticides known as neonicotinoids, and also the well-known pesticide Roundup. "*Roundup is systemic and gets into the whole plant and is therefore on the nectar and the pollen,*" she explained. She cited a recent German report which found 57 pesticides in one dead bee. "*What we don't know is what is the effect of that combination? We have only recently discovered that fungicides and pesticides together make it even more damaging for bees.*"

Rosemary Mason 21 May 2019

⁴⁰ <https://juniperpublishers.com/oajt/pdf/OAJT.MS.ID.555623.pdf>