

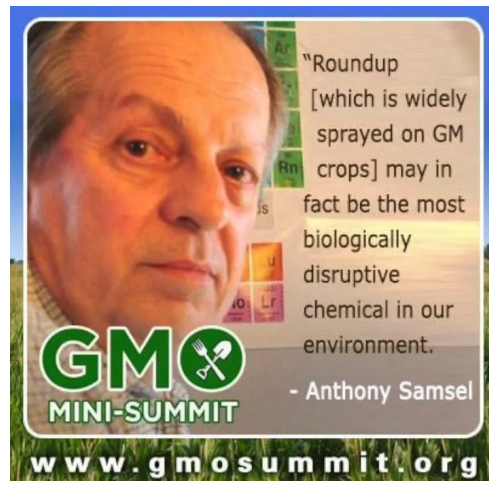
Glyphosate: The “Safe” Herbicide that’s Making us all Sick!



Stephanie Seneff
MIT CSAIL
Hawaii Tour, Summer, 2015

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[http://people.csail.mit.edu/seneff/
SeneffHawaiiSummer2015.pptx](http://people.csail.mit.edu/seneff/SeneffHawaiiSummer2015.pptx) (.pdf)



New York Times: “Another View” July 13, 2015

“The GMO experiment, carried out in real time and with our entire food and ecological system as its laboratory, is perhaps the greatest case of human hubris ever. It creates yet another systemic, ‘too big too fail’ enterprise — but one for which no bailouts will be possible when it fails.”

Mark Spitznagel and Nassim Nicholas Taleb

nytimes.com/2015/07/14/business/dealbook/another-too-big-to-fail-system-in-gmos.html

Outline

- Introduction
- Glyphosate and manganese
- Gluten intolerance
- Gut microbes and obesity
- Soy is toxic food
- Cancer
- Anencephaly
- Species in stress
- What we can expect looking forward
- Taking action

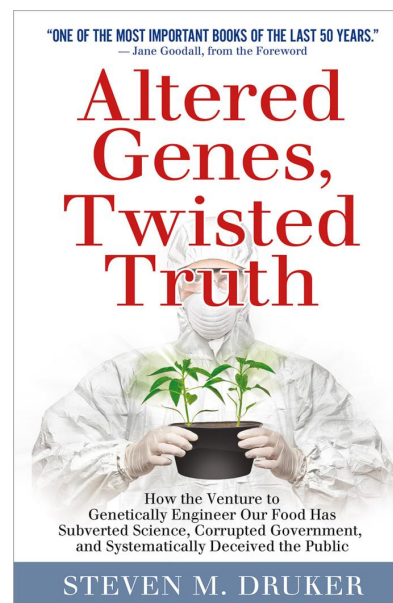
Introduction

US Health Status

- US makes up 5% of the world's population but consumes more than 50% of the world's pharmaceutical drugs
- We spend more on health care than Japan, France, China, UK, Italy, Canada, Brazil, Spain, and Australia, *combined*
- US ranks last or near last among developed nations on infant mortality and life expectancy
- We also suffer from more chronic illnesses
- *We consume 25% of the world supply of glyphosate*

New Book!

- Genetic engineering is recklessly subjecting our health and the health of the environment to unacceptable risks.
 - Not based on sound science, but rather on evasion of the standards of science.
- For over 30 years, esteemed institutions have systematically contorted the truth to conceal the risks.

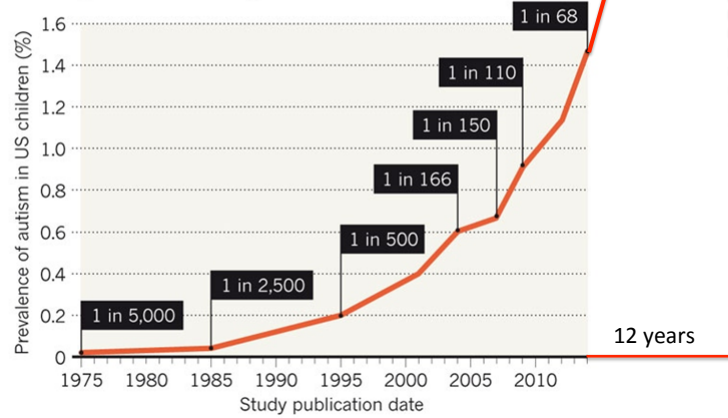


A Frightening Trend*



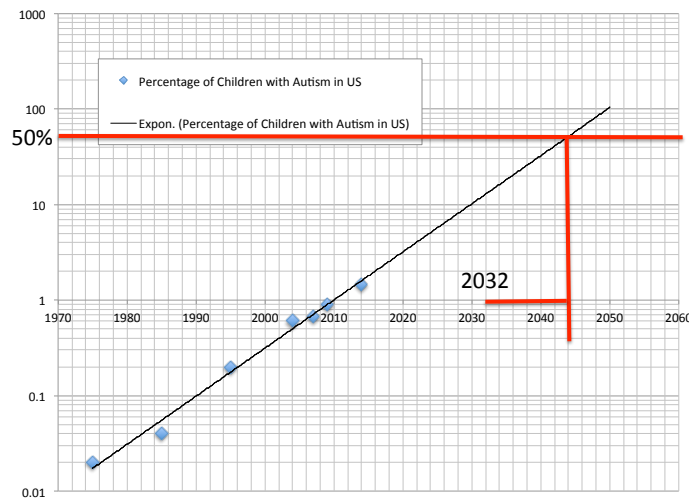
AUTISM DIAGNOSES RISING

Almost 1.5% of US children are now diagnosed with autism, according to data from 11 regions in the United States.

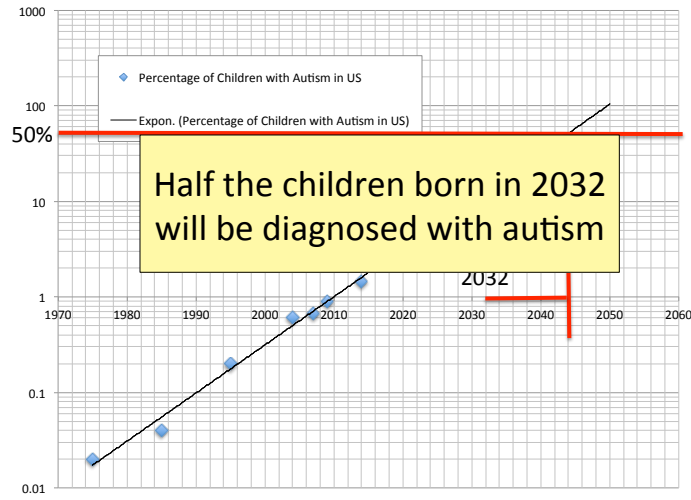


*K. Weintraub, Nature 479, Nov. 3 2011, 22-24.

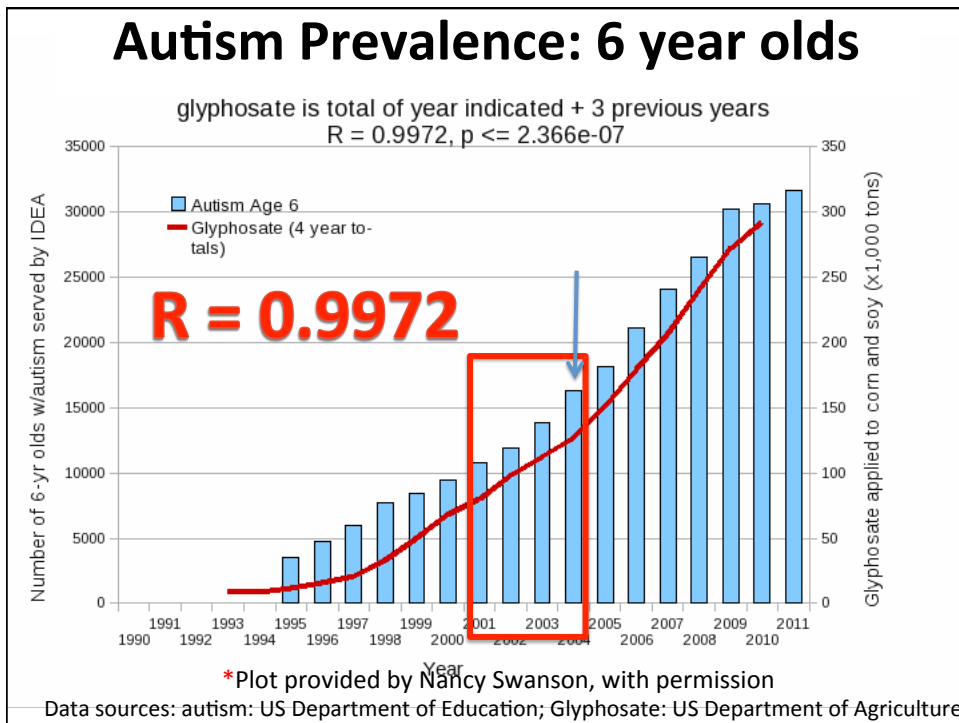
Percentage of children with Autism in the US



Percentage of children with Autism in the US



WHY???



“Glyphosate is everywhere throughout our food chain – in our food and water. The lack of data on toxicity of Glyphosate is not proof of safety and these herbicides cannot be considered safe without proper testing. We know Roundup ... contains many other chemicals which, when mixed together are 1,000 times more toxic than Glyphosate on its own.”

-- Dr. Robin Mesnage, author of multiple papers on Roundup's toxicity

Is Glyphosate Nontoxic?

- Monsanto has argued that glyphosate is harmless to humans because our cells don't have the shikimate pathway, which it inhibits
- However, our gut bacteria DO have this pathway
 - We depend upon them to supply us with essential amino acids (among many other things)
- Other ingredients in Roundup greatly increase glyphosate's toxic effects
- Insidious effects of glyphosate accumulate over time
 - Most studies are too short to detect damage

Main Toxic Effects of Glyphosate*

- Kills beneficial gut bacteria and allows pathogens to overgrow
- Interferes with function of cytochrome P450 (CYP) enzymes
- Chelates important minerals (iron, cobalt, manganese, etc.)
- Interferes with synthesis of aromatic amino acids and methionine
 - Leads to shortages in critical neurotransmitters
- Disrupts sulfate synthesis and sulfate transport

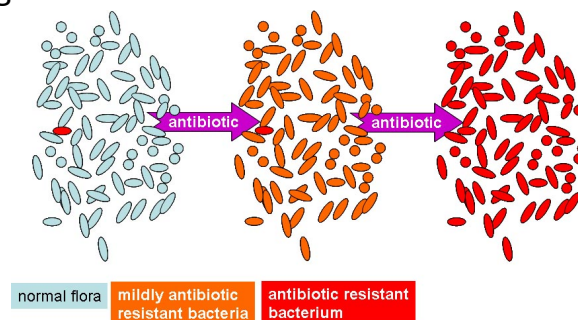
**Samsel and Seneff, Entropy 2013, 15, 1416-1463*

Nutrients, Hormones and Neurotransmitters Disrupted by Glyphosate

- Folate, vitamin K, vitamin A, vitamin D, cobalamin
- Aromatic amino acids, methionine
- Iron, manganese, cobalt, selenium, zinc, sulfur
- Serotonin, melatonin, dopamine, epinephrine
- Melanin (skin tanning agent), thyroid hormone
- NAD, glutathione (antioxidant defenses)

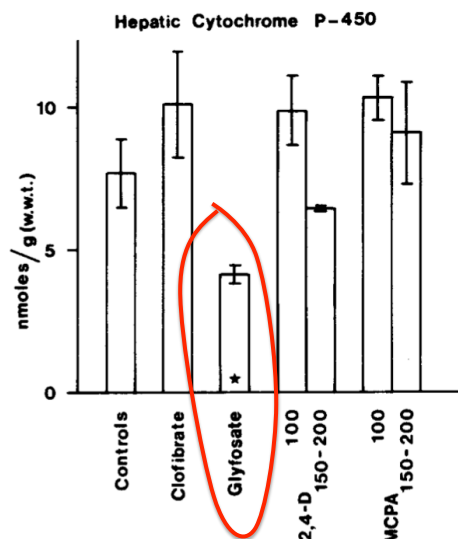
Glyphosate and Antibiotic Resistance*

- Huge and growing problem with antibiotic resistant microbes in hospitals worldwide
- Glyphosate is a patented antimicrobial agent
- Chronic low-level exposure to one antibiotic empowers pathogens to become resistant to other antibiotics



*B Kurenbach et al., mBio March/April 2015; 6(2):e00009-15.

Inhibition of Cytochrome P450 Enzymes (CYPs) by Various Pesticides*



Study in rats on
2,4-D, clofibrate,
MCPA, and
glyphosate

*E Hetanen et al., Acta Pharmacol. Et Toxicol. 1983, 53, 103-112.

Glyphosate and Kidney Disease^{*},^{}**

- Workers In sugarcane fields in central America and rice paddies In Sri Lanka are dying at a young age from kidney failure
- Glyphosate combined with arsenic and drinking water from abandoned wells is implicated
- Sri Lanka and El Salvador have banned glyphosate as a consequence

^{*}C. Jayasumana et al., Int. J. Environ. Res. Public Health 2014, 11, 2125-2147,

^{**} C. Jayasumana et al., Environmental Health 2015 14:6.

Glyphosate and Manganese

Glyphosate Depletes Iron, Manganese and Zinc in Plants*

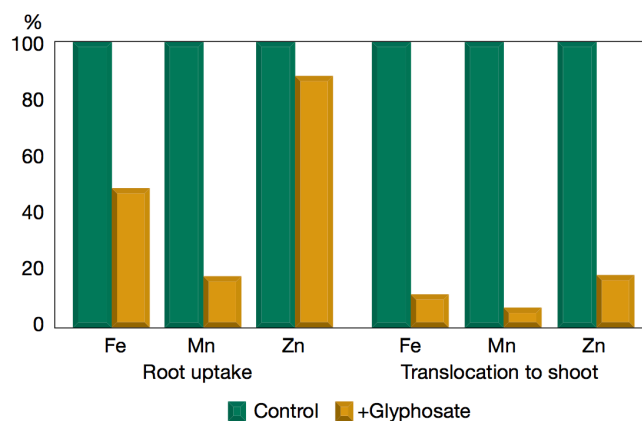
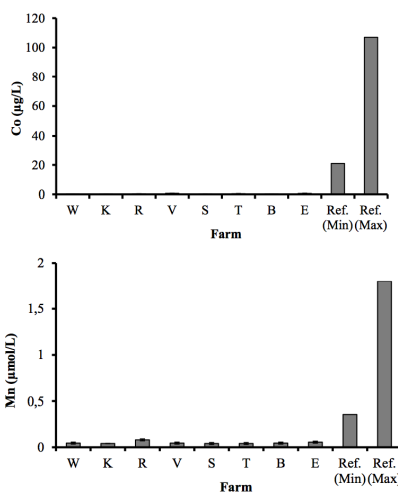


Figure 1. Effect of glyphosate* on nutrient uptake and translocation by "non-target" plants, Eker, et al. 2006. (* 2.5% of recommended herbicidal rate of glyphosate.)

*D Huber, **What About Glyphosate-Induced Manganese Deficiency?**
Fluid Journal, 20-22.

Severe Deficiency in Serum Manganese and Cobalt in Cows*



Eight different farms: all cows tested had glyphosate in the urine

*M. Krüger et al., J Environ Anal Toxicol 2013, 3:5

Low Manganese in Teeth Linked to Autism*

- Studied lead, mercury and manganese levels in tooth enamel of shed primary teeth in 84 children
- Manganese accumulated after birth was down by 60% in autistic children
- *No other result was statistically significant*



*MM Abdullah et al., *J Autism Dev Disord.* 2012 Jun;42(6):929-36.

Paper on Glyphosate and Manganese Published March 24, 2015

Surgical Neurology International

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Original Article

Glyphosate, pathways to modern diseases III: Manganese, neurological diseases, and associated pathologies

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*Corresponding author

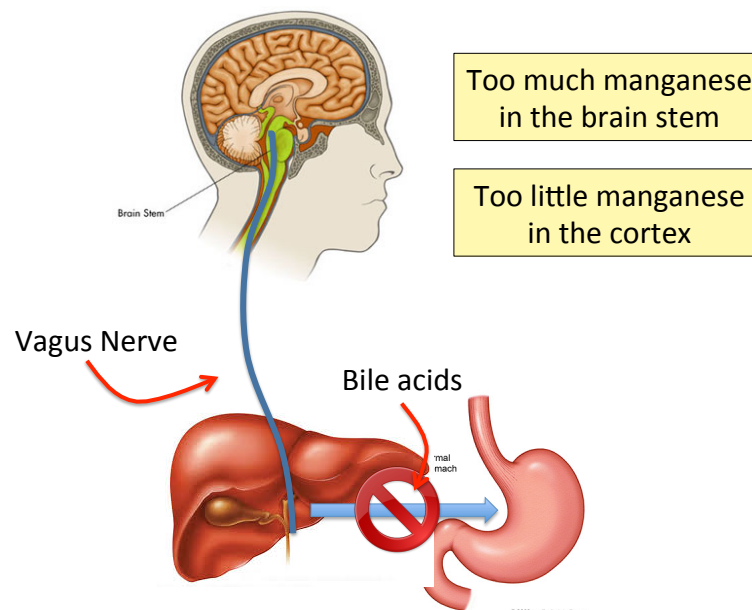
Received: 22 September 14 Accepted: 21 January 15 Published: 24 March 15

Manganese and Autism*

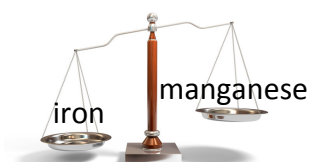
- Glyphosate chelates manganese
- Manganese disruption leads to:
 - Disrupted gut bacteria → anxiety
 - Impaired dopamine synthesis → thyroid disease
 - Glutamate and ammonium toxicity in the brain
 - Mitochondrial damage
 - Impaired bone development and osteoporosis
 - Impaired development of perineuronal nets
- Many of these pathologies are associated with autism

*A Samsel and S Seneff, Surg. Neurol. Int. 2015;6:45.

It's not just deficiency!



Balancing the Scales



Autism



ADHD

Alzheimer's

Parkinson's

Glyphosate disrupts the body's ability to distribute the minerals safely: Everybody walks a tight rope between deficiency and toxicity

Iron is Also Problematic with Glyphosate

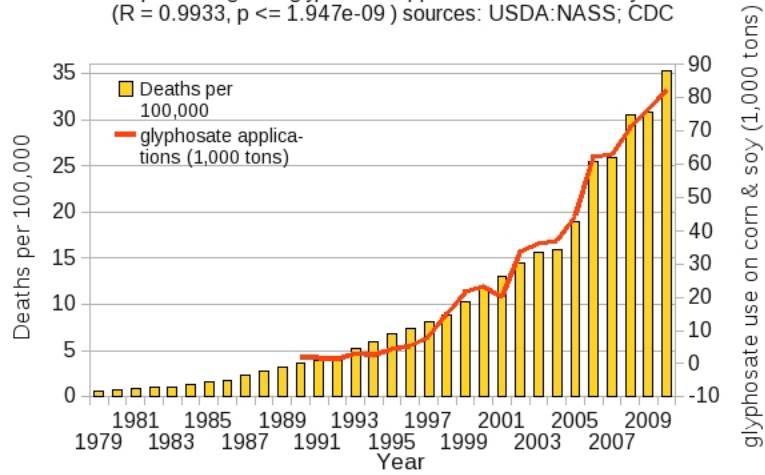
“Our love-hate relationship with Fe (IRON) is the cost we incur to have an aerobic metabolism. If there is insufficient Fe we suffer loss of function: if there is too much, or the control and repair mechanisms are defective, we suffer damage.”*

Glyphosate makes the control and repair mechanisms defective

*Ramdath and Golden, Nutrition Research Reviews (1989). 2. 29-49, p. 31

Dementia and Autism Have Much in Common

Deaths from Senile Dementia (ICD F01, F03 & 290)
plotted against glyphosate applications on corn & soy
($R = 0.9933$, $p \leq 1.947e-09$) sources: USDA:NASS; CDC



Plot kindly provided by Nancy Swanson

Gluten Intolerance

Gluten Intolerance or Glyphosate Intolerance?

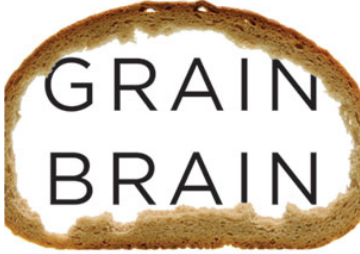


- **Glyphosate: the key ingredient in Monsanto's RoundUp**
- **Routinely used to "dry down" wheat prior to harvest**
- **Linked to celiac disease, gluten intolerance, and irritable bowel**

Get the facts. Share the awareness.
[facebook.com/gmoawarenessusa](https://www.facebook.com/gmoawarenessusa)

Trouble with Wheat!

*The Surprising Truth About Wheat, Carbs,
and Sugar—Your Brain's Silent Killers*




**GRAIN
BRAIN**

DAVID PERLMUTTER, MD
Author of The Better Brain Book
WITH KRISTIN LOBERG

THE ULTIMATE GRAIN-FREE
HEALTH AND WEIGHT-LOSS LIFE PLAN

WHEAT BELLY TOTAL HEALTH



WILLIAM DAVIS, MD
*Author of the #1 New York Times Bestseller Wheat Belly,
Wheat Belly Cookbook, and Wheat Belly 30-Minute (or Less!) Cookbook*

Desiccation with Glyphosate*

- Advantages:
 - Hastens maturity to harvest
 - Weed control for next year's crop
 - Reduces green material and therefore strain on harvesting machinery
- Disadvantages
 - Herbicide cannot be washed out prior to human use.
 - Animals fed herbicide-treated crops → contamination in animal products
- Crops include wheat, barley, legumes, corn, sunflower, kiwi, grapes (wine), raspberries, apples, soybeans, alfalfa, sugar cane



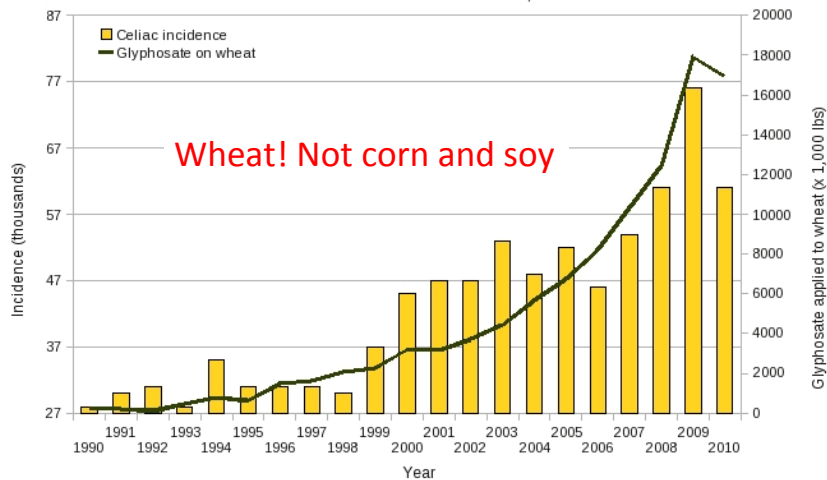
“We may be able to knock out 80% to 90% of the resistant ryegrass with glyphosate.”

*Ron Smith, Western Farm Press, Mar. 23, 2013

Hospital Discharge Diagnosis (any) of Celiac Disease ICD-9 579

and glyphosate applications to wheat ($R = 0.9759$, $p \leq 1.862e-06$)

sources: USDA:NASS; CDC



Graph provided by Nancy Swanson, with permission

Celiac Disease, Glyphosate and Non Hodgkin's Lymphoma

- Glyphosate preferentially kills bifidobacteria*
- Bifidobacteria are depleted in celiac disease**
- Celiac disease is associated with increased risk to non Hodgkin's lymphoma***
- Glyphosate itself is also linked directly to non Hodgkin's lymphoma****

* A.A. Shehata et al., Curr Microbiol. 2013 Apr;66(4):350-8.

** M. Velasquez-Manoff, NY Times Sunday Review, Feb. 23, 2013.

*** C. Catassi et al., JAMA. 2002 Mar 20;287(11):1413-9.

**** M. Eriksson et al., Int J Cancer. 2008 Oct 1;123(7):1657-63.

Gut Microbes & Obesity

Gut Microbes and Obesity

- Our microbes outnumber our own cells 10 to 1
- There are between 200 and 300 different species in a typical person.
- Environmental toxins like glyphosate can cause an overgrowth of pathogens in the gut
 - They release toxic phenols
 - This can lead to inflammatory bowel disease
 - And a direct path to obesity!
- Gut microbes from an obese person induced obesity in mice*

*N. Fei and L. Zhao, The ISME Journal, Online Publication Dec. 2012 wallpaperzz.com

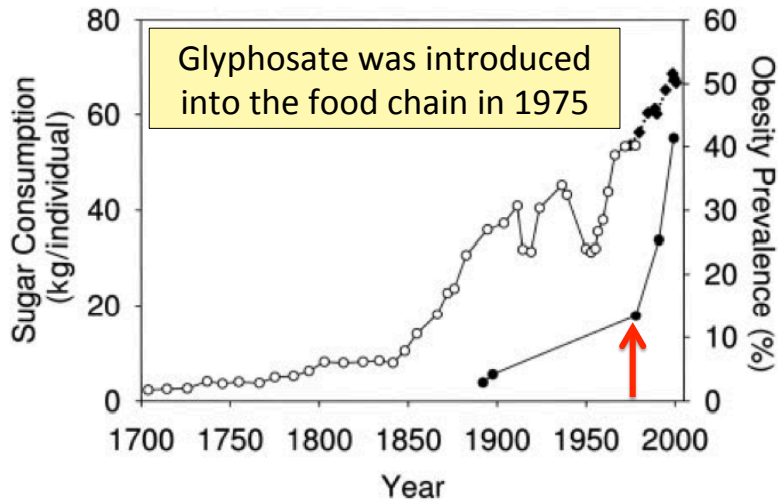
Obesity Epidemic in US*

- More than two-thirds of US adults are now overweight or obese
- Obesity is linked to a number of chronic health conditions, including type 2 diabetes, heart disease, cancer and arthritis



*L Yang and GA Colditz,
"Prevalence of Overweight and Obesity in the United States, 2007-2012"
JAMA Internal Medicine, June 22, 2015.

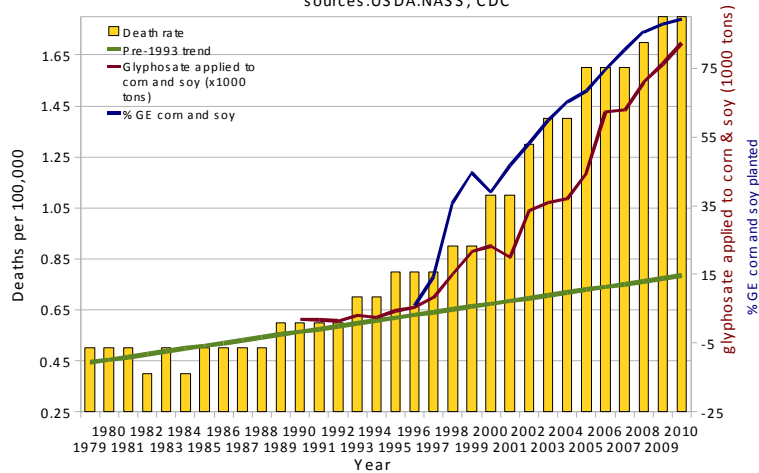
Obesity in US over Time*



*Figure 1 in R.J. Johnson et al., Am J Clin Nutr 2007;86:899–906.

Deaths due to Obesity (ICD E66 & 278)

plotted against % GE corn & soy ($R = 0.9586$, $p <= 4.027e-06$)
and glyphosate applied to corn & soy ($R = 0.9702$, $p <= 9.752e-09$)
sources:US DA:NASS; CDC



Nancy Swanson, <http://www.examiner.com/article/data-show-correlations-between-increase-neurological-diseases-and-gmos>

How Might Glyphosate Cause Obesity?

- Glyphosate disrupts liver's ability to detox pervasive organic pollutants
- Excess abdominal fat becomes a site where these toxins can be sequestered
- Gut microbes convert sugar to fat where the toxins can be safely stored
- Glyphosate also depletes serotonin which suppresses appetite

Is Kwashiorkor Caused by Glyphosate?

- Kwashiorkor is a “nutritional deficiency” disease prevalent in Malawi, Africa, where the staple diet is GM Roundup-Ready maize
- Kwashiorkor victims have disrupted microbes reminiscent of autism
 - Important enzyme known to be inhibited by glyphosate is defective
- Transplanting their gut microbes into mice produced kwashiorkor in the mice



*MI Smith et al., Science. 2013 Feb 1;339(6119):548-54.

Is Kwashiorkor Caused by Glyphosate?

- Kwashiorkor is a “nutritional deficiency” disease prevalent in Malawi, Africa where the



"It is a travesty that we are the only nation on Earth where our staple food, namely maize, is genetically modified."*

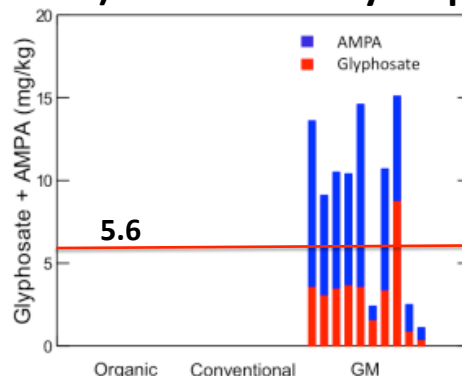
-- Mariam Mayet, Director, African Centre for Biosafety

- Transplanting their gut microbes into mice produced kwashiorkor in the mice

* acbio.org.za/alarm-over-high-gm-content-in-tiger-brands-ace-maize-products-misleading-labelling/#sthash.lknp5rTy.dpuf 54.

GM Soy is Toxic Food

Study of glyphosate and AMPA (breakdown product) residues in soy crops*



"Another claim of Monsanto's has been that residue levels of up to 5.6 mg/kg in GM-soy represent "...*extreme levels*", and far higher than those typically found" (Monsanto 1999).

www.greenmedinfo.com/blog/how-extreme-levels-roundup-food-became-industry-normal

Soy Formula Linked to Seizures in Autism*

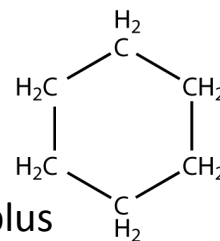
"There was a 2.6-fold higher rate of febrile seizures, a 2.1-fold higher rate of epilepsy comorbidity and a 4-fold higher rate of simple partial seizures in the autistic children fed soy-based formula"



*CJ Westmark, PLOSOne March 12, 2014, DOI: 10.1371/journal.pone.0080488.

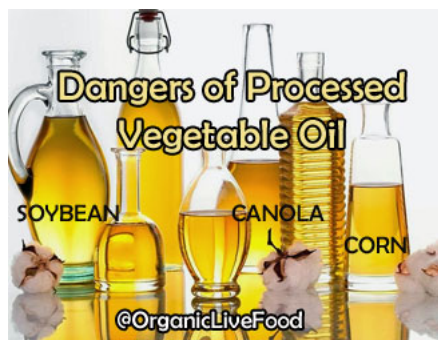
Hexane!

- Chemical extracted food oil is extracted using n-hexane as a solvent
- Chemical extracted soybean oil plus soybean protein powder are added to infant formula
- China and Europe have regulatory restrictions on the amount of allowable hexane residue
- The US sets no limit and doesn't monitor



Toxic Effects of Inhaled Hexane*

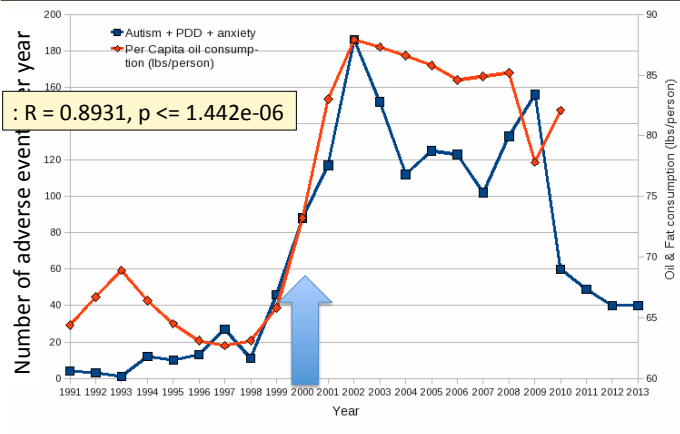
- Low: Dizziness, headache, nausea, vomiting
- High: Death from asphyxiation
- Chronic: Peripheral neuropathy, pain, weakness, loss of sensation, impaired gait, muscle atrophy, visual disturbances



*N-HEXANE. *Toxicology data network Hazardous Substances Data Bank.*
US National Library of Medicine

VAERS Database Analysis Compared to Oil Consumption*

In 2000, they phased out the mercury in the vaccines but the autism rates continued to climb



* Plots provided by Nancy Swanson with permission

McDonald's Finally Converts*

“MCDONALD'S OIL CHANGE / Fast food giant to trim levels of dangerous trans fat in its fryers”

- Kim Severson, Chronicle Staff Writer

Published Wednesday, September 4, 2002

* <http://www.sfgate.com/health/article/MCDONALD-S-OIL-CHANGE-Fast-food-giant-to-trim-3185573.php#photo-2323199>

McDonald's Finally Converts*

"The fast food giant that once fried its potatoes in beef tallow will start cooking french fries, chicken nuggets and fish fillets in *a new kind of soy-corn oil* with less trans fat and more polyunsaturated fat, the world's biggest food-service company announced Tuesday."

March, 2002 – McDonald's settled a \$10 million lawsuit claiming its french fries were not vegetarian (due to lard used in frying them)

*<http://www.sfgate.com/health/article/MCDONALD-S-OIL-CHANGE-Fast-food-giant-to-trim-3185573.php#photo-2323199>

McDonald's Finally Converts*

"The fast food giant that once fried its potatoes in

**This Is when I stopped eating
McDonald's French Fries**

the world's biggest food-service company announced Tuesday."

March, 2002 – McDonald's settled a \$10 million lawsuit claiming its french fries were not vegetarian (due to lard used in frying them)

*<http://www.sfgate.com/health/article/MCDONALD-S-OIL-CHANGE-Fast-food-giant-to-trim-3185573.php#photo-2323199>

Cancer

WHO Labels Glyphosate as “Probable Carcinogen”*

- Reviewed evidence and decided that the evidence justified the change
- Anthony Samsel has now acquired thousands of pages of “secret” documents from the EPA and he is finding damning evidence of carcinogenicity in Monsanto’s own studies**

***World Health Organization.
IARC Monographs Volume 112: Evaluation of five organophosphate
insecticides and herbicides. (20 March, 2015).**

****Interview with Tony Mitra: http://www.tonu.org/2015/06/06/glyphosate_tradesecretfiles/**

Glyphosate Test Report: Findings in American Mother's Breast milk, urine and water*

- Moms Across America initiative!
- Breast milk levels ranging from 76 ug/L to 166 ug/L in the US vs 10 ug/L in Europe
- Urine levels over 10 times higher than in Europe
- Monsanto is wrong regarding bioaccumulation

If it's in the breast milk
then it is in the breast!

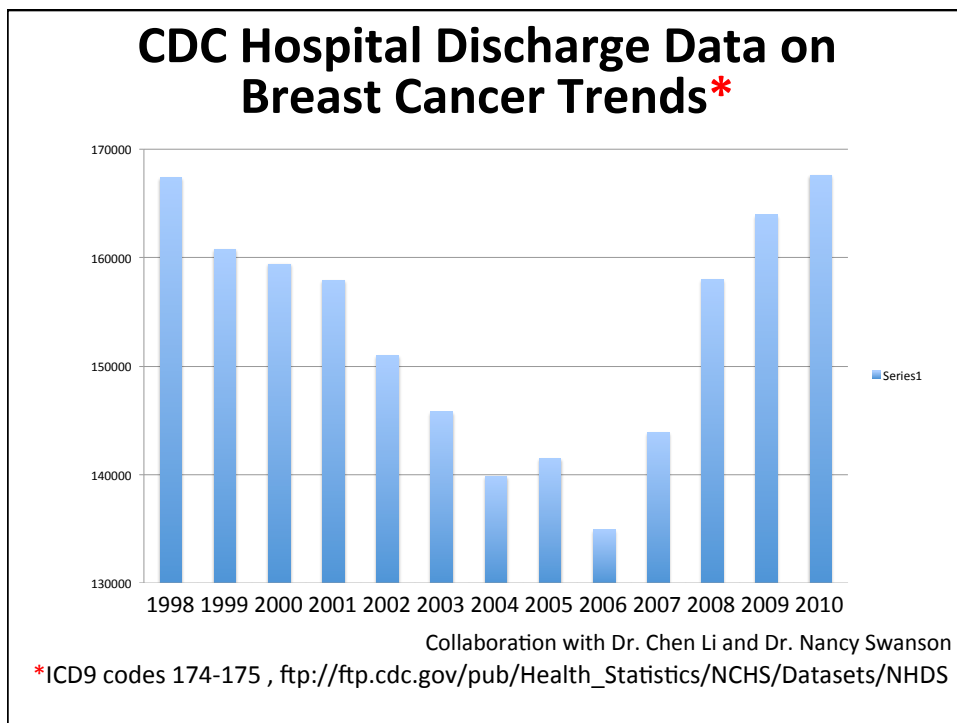
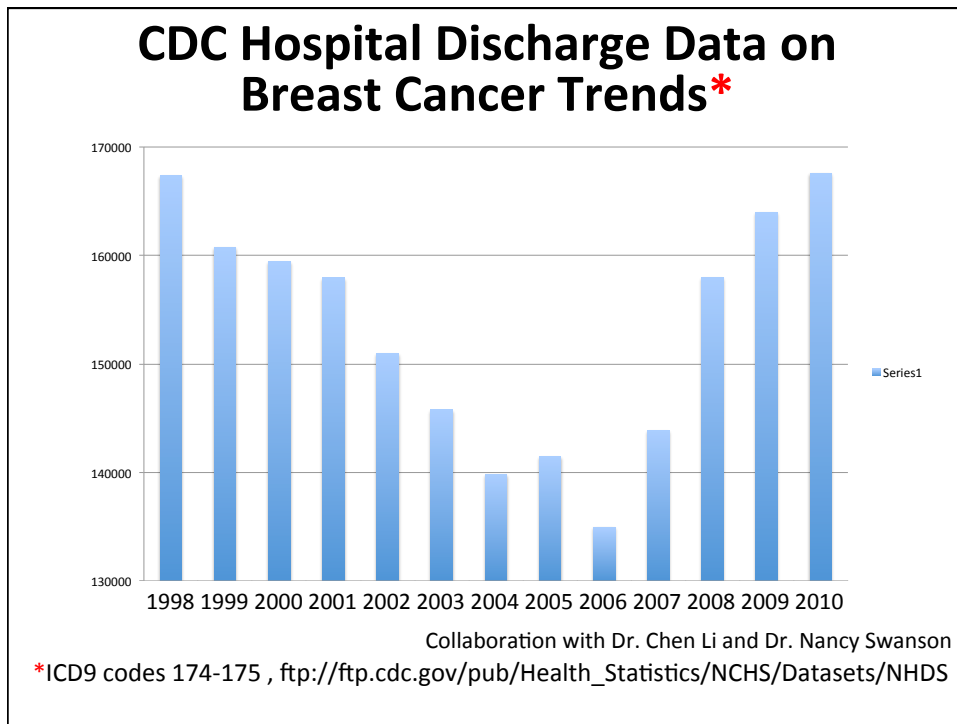
*Posted on Apr 6 2014 - 4:19am by Sustainable Pulse

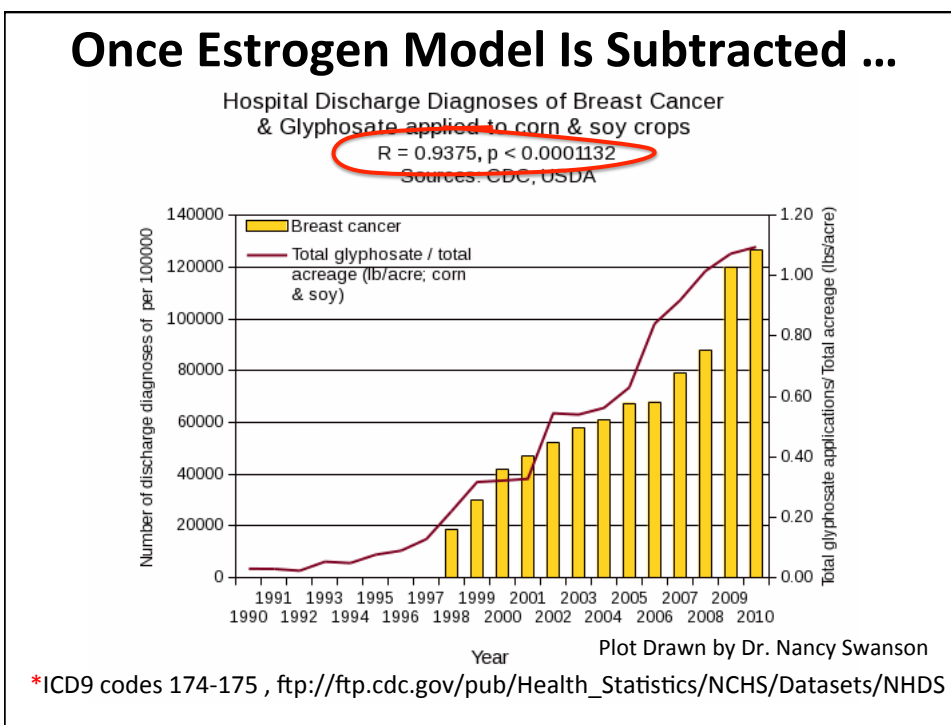
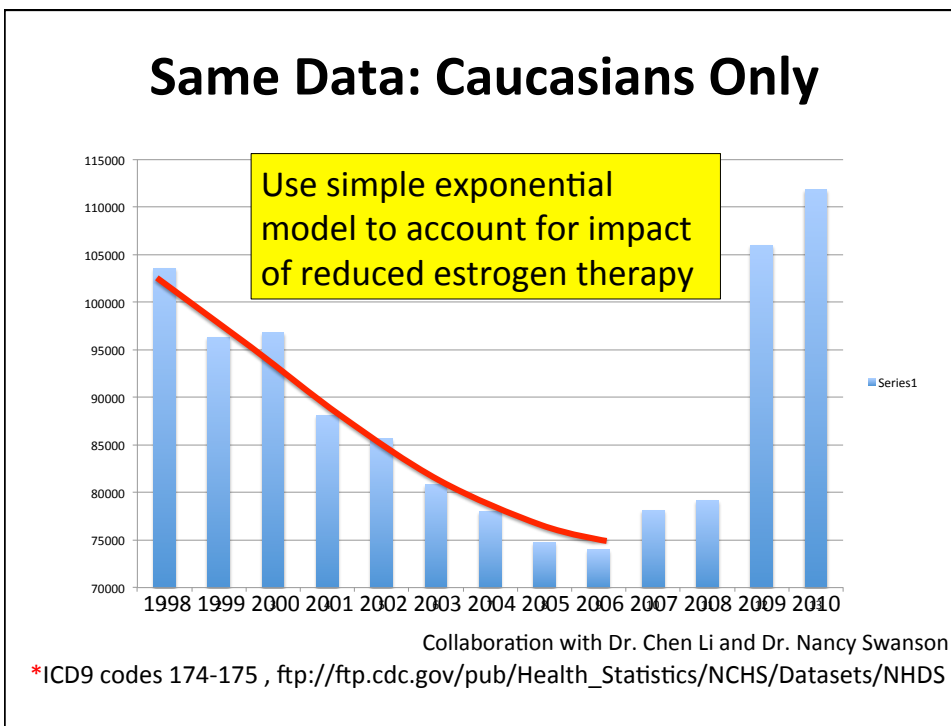
Glyphosate is an endocrine disruptor that promotes breast cancer*

- Low and environmentally relevant concentrations of glyphosate possess estrogenic activity
- Glyphosate caused human hormone-dependent breast cancer cells to proliferate at concentrations of *parts per trillion*
- Additive effect from genistein, a phytoestrogen in soybeans



* S. Thongprakaisang et al., Food Chem Toxicol. 2013 Jun 8. S0278-6915(13)00363-3.





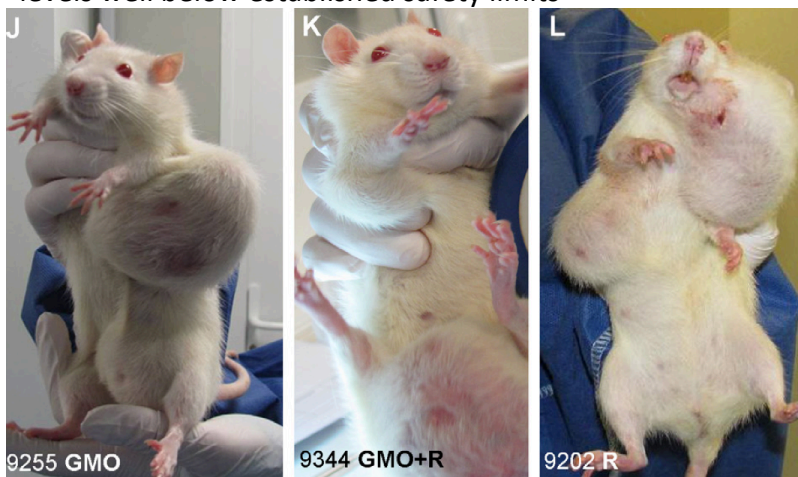
Roundup Disrupts Steroid Synthesis*

- StAR protein mediates rate-limiting step in steroid synthesis
- Roundup suppresses StAR protein by 90% and reduces steroidogenesis by 94%
- This affects both the production of sex hormones in the gonads and the production of cortisol and aldosterone in the adrenal glands

*L.P. Walsh et al., Environmental Health Perspectives 108(8), 2000 769-776.

Mammary Tumors in Rats*

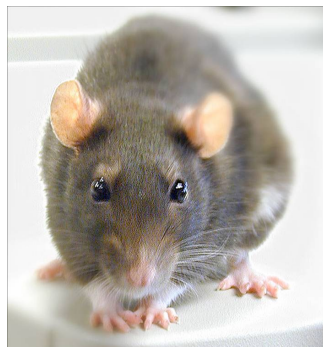
Rats through their entire lifespan exposed to Roundup at levels well below established safety limits



*G-E S eralini et al. Environmental Sciences Europe 2014, 26:14

Conclusions from Rat Study *

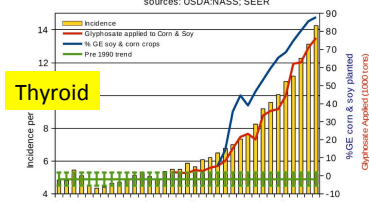
- *Female rats had greatly increased risk of mammary tumors*
- Males had significantly increased risk of tumors of the liver and kidney
- Sex hormone disruption for both males and females
- Enhanced oxidative stress
- Very significant kidney dysfunction
- *Effects didn't become apparent until after 4 months*



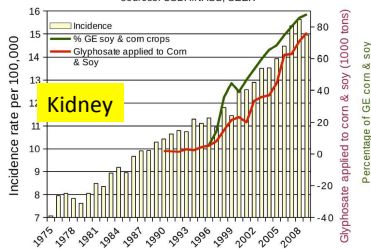
*G-E Séralini et al. Environmental Sciences Europe 2014, 26:14

Correlations between Glyphosate and Multiple Cancers *

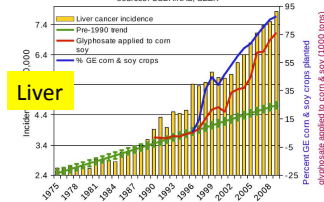
Thyroid Cancer Incidence Rate (age adjusted)
plotted against glyphosate applied to U.S. corn & soy (R = 0.988, p <= 7.612e-09)
along with %GE corn & soy crops (R = 0.9377, p <= 2.152e-05)
sources: USDA/NASS; SEER



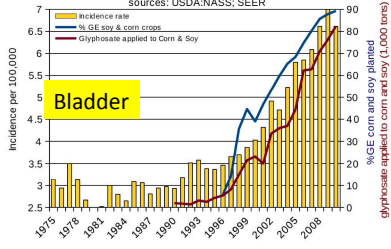
Age Adjusted Kidney and Renal Pelvis Cancer Incidence
Plotted against glyphosate applied to corn & soy (R = 0.9734, p <= 1.98e-08)
along with %GE corn and soy planted in U.S. (R = 0.94, p <= 1.978e-05)
sources: USDA/NASS; SEER



Liver and Intrahepatic Bile Duct Cancer Incidence
(age adjusted)
plotted against glyphosate applied to corn & soy (R = 0.9596, p <= 4.624e-08)
along with %GE corn & soy planted in U.S. (R = 0.9107, p <= 5.402e-05)
sources: USDA/NASS; SEER



Age Adjusted Urinary/Bladder Cancer Incidence
Plotted against % GE corn and soy (R = 0.9449, p <= 7.1e-06)
and glyphosate applied to corn and soy (R = 0.981, p <= 4.702e-09)
sources: USDA/NASS; SEER



*N Swanson et al., Journal of Organic Systems, 9(2), 2014

Anencephaly

Glyphosate and Anencephaly*

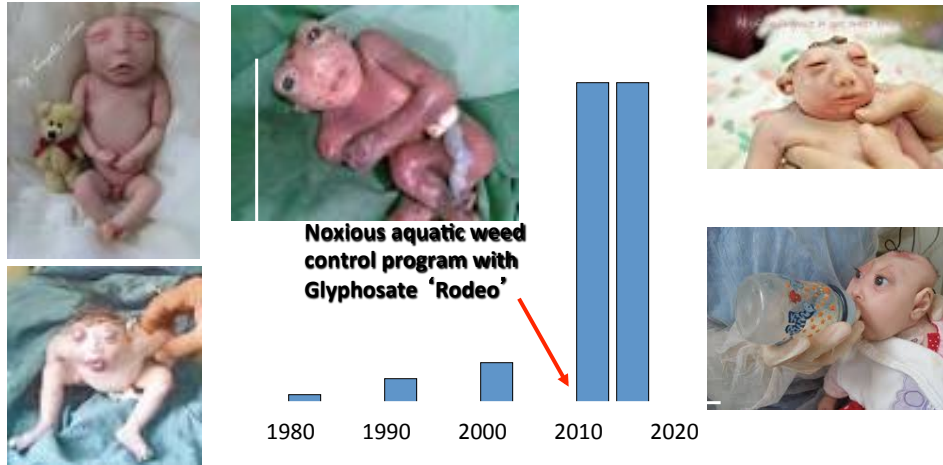
- Yakima, Benton and Franklin counties in Washington State have an unusually high number of pregnancies affected by the birth defect, anencephaly
- 75 pesticides were analyzed in studying contamination due to surrounding agriculture
 - 47 (63%) of these were detected
 - Glyphosate was applied in large amounts, *but was not studied*
- 5% solution of glyphosate was also used heavily around irrigation ditches to control weeds
 - Main herbicide recommended due to its “low toxicity”



Glyphosate has been linked to anencephaly due to its effect on retinoic acid

*Barbara H. Peterson. Farm Wars, <http://farmwars.info/?p=11137>

“Glyphosate, Brain Damaged Babies, and Yakima Valley - A River Runs Through It”*



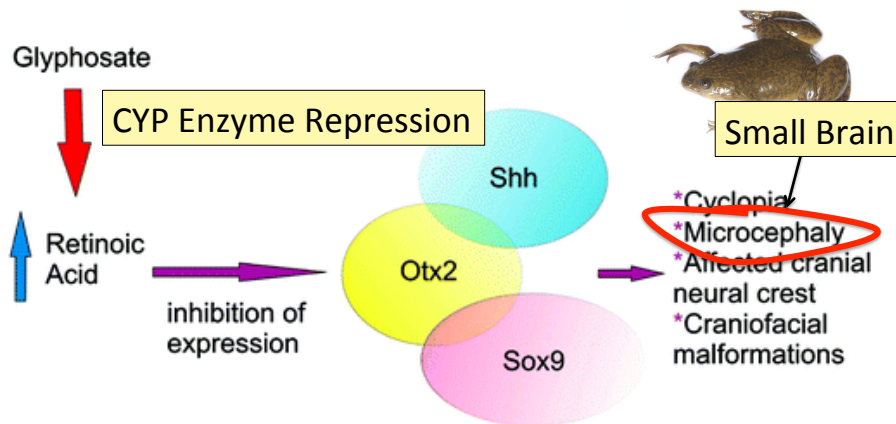
“Glyphosate, Three Rivers, and Anencephaly”

Yakima Harold Republic

Slide thanks to Prof. Don Huber, with permission

*Farm Wars 3/6/14

Glyphosate Upregulates Retinoic Acid*



*A. Carrasco, Teratogenesis by glyphosate based herbicides and other pesticides. Relationship with the retinoic acid pathway. In Breckling, B. & Verhoeven, R. (2013) GM-Crop Cultivation – Ecological Effects on a Landscape Scale. Theorie in der Ökologie 17. Frankfurt, Peter Lang.

Species in Stress

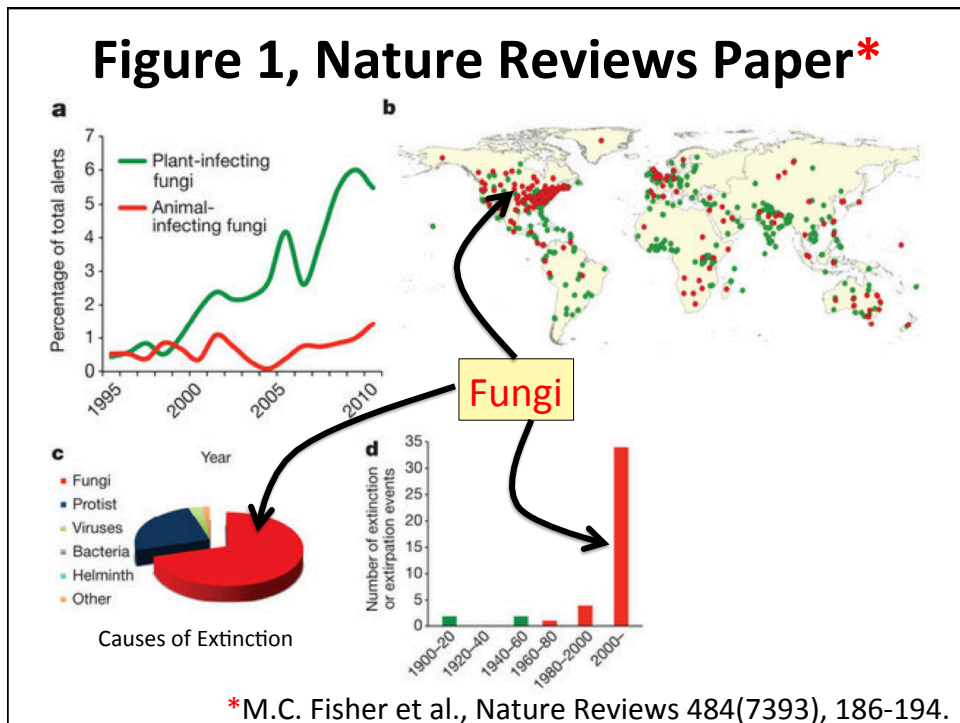
U.S. Geological Survey Study on Pesticides in Rain Water in Mississippi*

- 2 million kilograms of glyphosate were applied statewide in 2007 in Mississippi
- Over 75% of the air and rain samples tested positive for glyphosate and AMPA.

*M.S. Majewski et al., Environ Toxicol Chem. 2014 Jun;33(6):1283-93.

Species in Stress

*R. Mason et al., Journal of Environmental Immunology and Toxicology 1:1, 3-12; 2013



**“Emerging fungal threats to animal,
plant and ecosystem health”***

“ In both animals and plants, an unprecedented number of fungal and fungal-like diseases have recently caused some of the most severe die-offs and extinctions ever witnessed in wild species, and are jeopardizing food security.”

*M.C. Fisher et al., Nature Reviews 484(7393), 186-194.

***Roundup herbicide enhances the
growth of aflatoxin-producing fungi****



*Barberis et al., Journal of Environmental Science and Health, Part B: Pesticides, Food Contaminants, and Agricultural Wastes. 2013, 48(12), 1070-1079.

“Aflatoxins are mutagenic, carcinogenic, teratogenic, hepatotoxic, immunosuppressive, and they also inhibit several metabolic systems”*



*Barberis et al., Journal of Environmental Science and Health, Part B: Pesticides, Food Contaminants, and Agricultural Wastes. 2013, 48(12), 1070-1079.

The High Cost of Pesticides: Human and Animal Diseases

Judy Hoy¹, Nancy Swanson² and Stephanie Seneff^{3*}

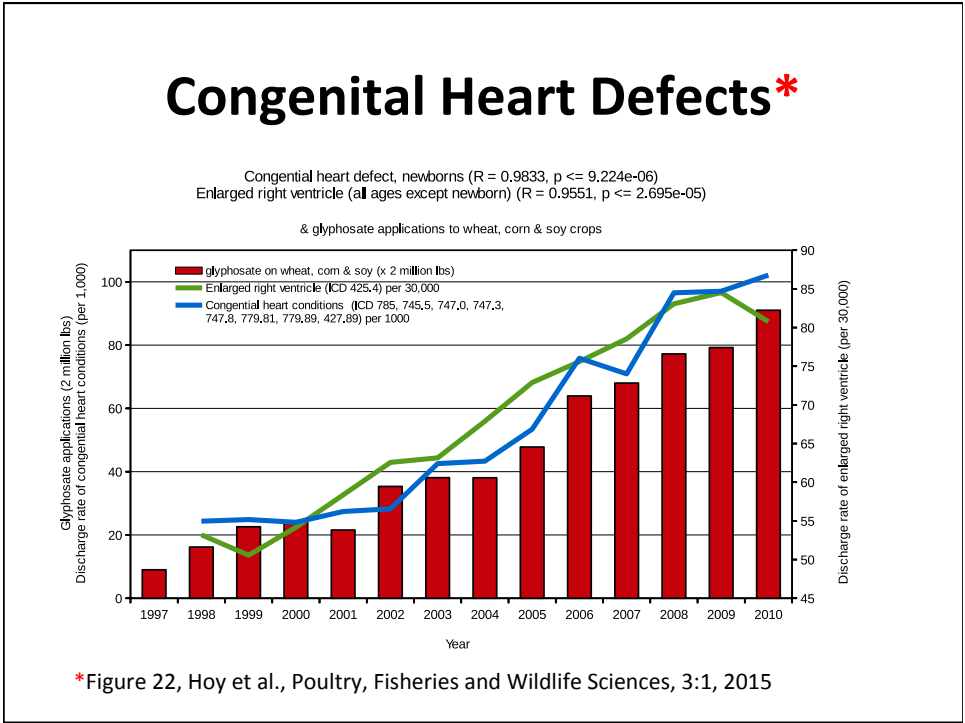
¹Independent Researcher, Stevensville, MT, USA

²Abacus Enterprises, Lummi Island, WA, USA

³Computer Science and Artificial Intelligence Laboratory, Massachusetts Institute of Technology, USA

Brand new paper!





What We Can Expect Looking Forward

GMO Studies are Worthless!*,**

“Could it be that the Sprague-Dawley rats used in many of these feeding experiments have been wrongly assumed to be uniquely susceptible to cancers, when the blame for the high incidence of tumours might be down to the high level of contaminants in the control diets used?”

-- *Glyphosate contamination in GMO feed*

*www.gmfrecymru.org/news/Press_Notice17June2015b.html

**R. Mesnage et al., PLoS ONE 10(7) (2015)

GMO Studies are Worthless!*,**

“Could it be that the Sprague-Dawley rats used in many of these feeding experiments have been

Roundup was detected in 9 of the 13 diets.
Eleven of the 13 diets contained GMOs that are grown
with large amounts of Roundup.

-- *Glyphosate contamination in GMO feed*

*www.gmfrecymru.org/news/Press_Notice17June2015b.html

**R. Mesnage et al., PLoS ONE 10(7) (2015)

GMO Studies are Worthless!*,**

“It appears that much of the ‘safety research’ underpinning the belief that GMOs are safe to eat is fundamentally flawed. It is hardly credible that this level of incompetence has existed within the science community for so many years; and it is much more likely that there has been a cynical acquiescence in scientific fraud, designed to achieve desired results.”

*www.gmfreecymru.org/news/Press_Notice17June2015b.html

**R. Mesnage et al., PLoS ONE 10(7) (2015)

Glyphosate-Resistant Weeds

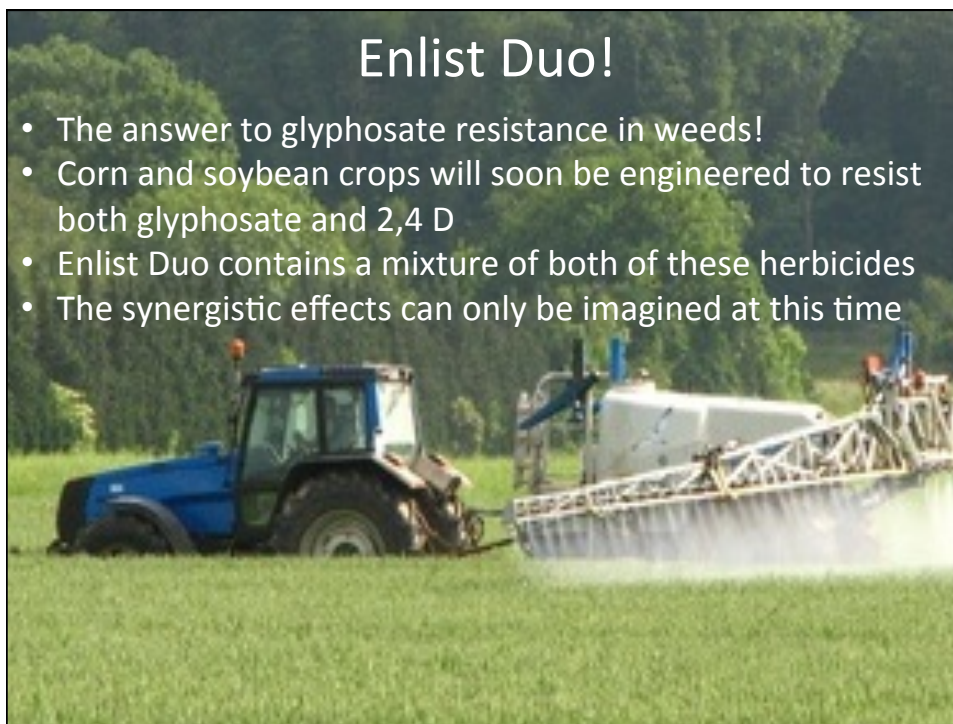


A maize field in Georgia, USA, in 2010, over-run with glyphosate-resistant palmer amaranth.

From GMO Myths and Truths, EarthOpenSource

Enlist Duo!

- The answer to glyphosate resistance in weeds!
- Corn and soybean crops will soon be engineered to resist both glyphosate and 2,4 D
- Enlist Duo contains a mixture of both of these herbicides
- The synergistic effects can only be imagined at this time

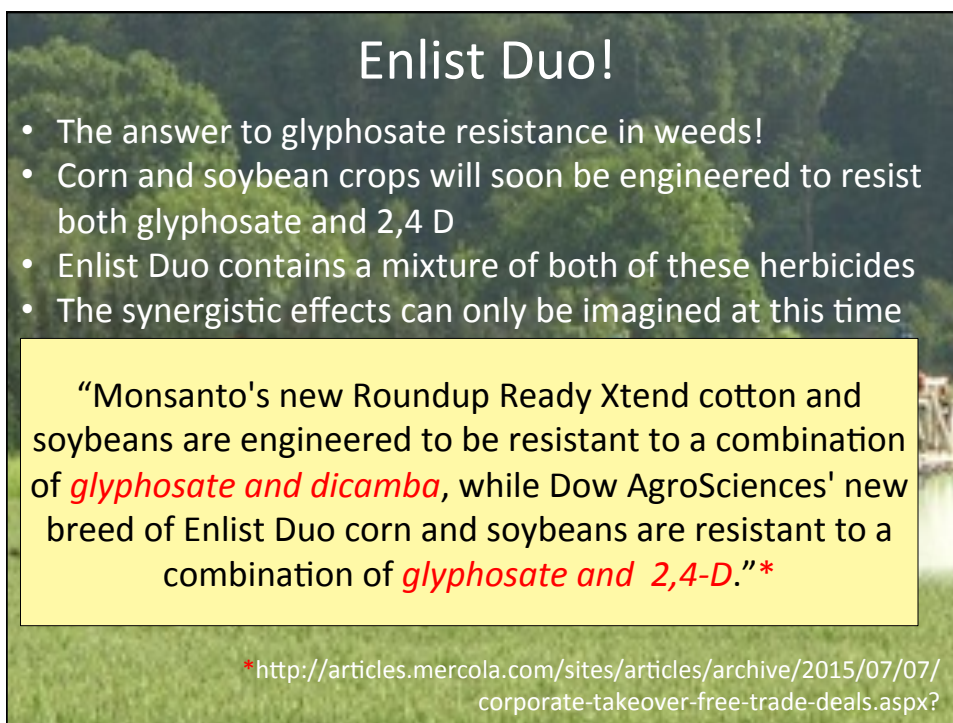


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“Monsanto's new Roundup Ready Xtend cotton and soybeans are engineered to be resistant to a combination of *glyphosate and dicamba*, while Dow AgroSciences' new breed of Enlist Duo corn and soybeans are resistant to a combination of *glyphosate and 2,4-D*.”*

*<http://articles.mercola.com/sites/articles/archive/2015/07/07/corporate-takeover-free-trade-deals.aspx?>



Taking Action

“Dutch Ban Roundup: France and Brazil Soon to Follow”*

- Dutch parliament has banned Roundup for personal use
- Follows Russia and Mexico
- Garden centers in France have already pulled Roundup from the shelves
- Brazil is considering a similar move



*www.thehealthyhomeeconomist.com/roundup-banned-netherlands-france-brazil-likely-soon-follow/

“Dutch Ban Roundup: France and Brazil Soon to Follow”*

- Dutch parliament has banned Roundup for personal use
- Followed by France
- Gardening products have already pulled Roundup from the shelves
- Brazil is considering a similar move



This became OLD NEWS on July 13th:
Now France has banned
glyphosate for private sales!

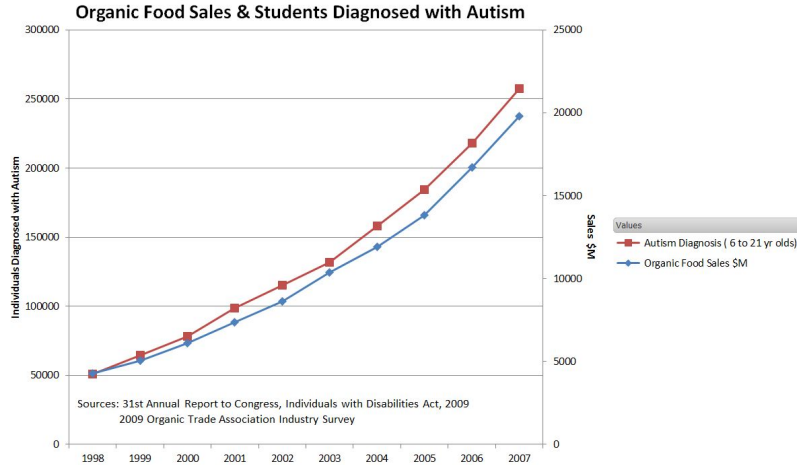
*www.thehealthyhomeeconomist.com/roundup-banned-netherlands-france-brazil-likely-soon-follow/

Sri Lanka Bans Glyphosate (Again)*

- This is stronger than the European laws because it includes commercial use
- “The decision by Sri Lanka’s new president to ban glyphosate this time around is expected to stand”
- Sri Lanka joins El Salvador and Bermuda as three countries taking a stand against glyphosate

*www.wakingtimes.com/2015/05/28/sri-lankas-newly-elected-president-bans-monsantos-glyphosate/

Organic Food Sales Continue to Rise!*



The relationship IS causal:
Autism CAUSES mothers to switch to organic food

*sixfigureinvesting.com/tag/correlation/

Move Over, Whole Foods: Costco Is the New King of Organic Groceries*



www.takepart.com/article/2015/05/29/americas-new-leader-organics-might-not-be-who-you-think



Tony Mitra, Canadian Activist

GLYPHOSATE TESTING FOR CANADA

FEED THE WORLD and Canadian citizen group **NATIONWIDE GLYPHOSATE TESTING** are proud to announce a Glyphosate Testing service now available to Canadians for the first time ever, using the highest quality detection system available (high-performance liquid chromatography tandem mass spectrometry (HPLC-MS/MS))



Where to register and pay : <http://feedtheworld.info/glyphosate-testing-test-yourself/>

Who to communicate with : Tony Mitra - glyphosate.testing@gmail.com or tony.mitra@gmail.com. Put the subject heading as "GLYPHOSATE TESTING"

Urine collection cup: Please buy your urine sample collection cup from a local source. Make sure it is a 4 oz / 125 ml cup with a screw top. Please also make sure you seal the cup very well when you have filled it with your sample. Write your name, age, sex, and date and time of collection legibly on the label located on the side of the urine cup. Also make sure you write the e-mail address that the test was ordered with on Paypal on the label.

Where to send : **Tony Mitra, 10891 Cherry Lane, Delta, BC, V4E 3L7, Canada**

Web site to keep updated : http://www.tonu.org/2015/05/20/glytest_canada/

For collecting water sample : Check with instruction you will received by email after having registered and paid for the testing.
Breast Milk : Not being offered in Canada at this moment.

This is a stopgap arrangement. Canada needs a lab where people can test themselves , their food, flora and fauna, for Glyphosate. That effort is still on.

“Organic is booming — and the push is on to get more growers”*

“In Canada, we see 58 per cent of all consumers buy organic on a weekly basis. It shows the strong demand for organic products.”

Prairie Organic Grain Initiative:

Ottawa recently pledged \$1.2 million for a Prairie-wide project aimed at strengthening the organic sector.

*www.albertafarmexpress.ca/2015/06/24/organic-is-booming-and-the-push-is-on-to-get-more-growers/

Zen Honeycutt and Moms Across America*



- Organizing “Mom Meet-ups”
- Testing glyphosate in breast milk
- Fourth of July parades
- Interviews with scientists
- Public speaking, etc.

MOMS ACROSS AMERICA

Empowered Moms, Healthy Kids

We are a national coalition of Unstoppable Moms committed to empowering millions to educate themselves about GMOs and related pesticides, get GMOs labeled and offer GMO free and Organic solutions

*<http://www.momsacrossamerica.com/>

“Richmond, CA Bans Glyphosate Found in Monsanto’s Roundup”*

“Monsanto continues to advertise glyphosate as safe for humans and animals, but scientific evidence shows that humans in fact do possess the enzymes that glyphosate targets, in our gastrointestinal bacteria, and that glyphosate also affects other enzymatic pathways.”

Other cities should follow Richmond’s lead!

*www.projectcensored.org/richmond-ca-bans-glyphosate-found-in-monsantos-roundup/

Monsanto/Roundup Class Action Lawsuit in California

Did You Know?
Glyphosate targets an enzyme found in plants, but not in people or pets.

WHERE TO USE

- Around Flower Beds
- On Driveways & Walkways
- Along Fences

Rainproof 30 Min

Roundup

Monsanto tells LIES on the Roundup label.

Truth is, Roundup targets and kills about 300 enzymes “found in” your stomach and intestines.

We just sued Monsanto for “false advertising,” but there’s a media blackout, so please SHARE this.

www.monsantoclassaction.org

healthimpactnews.com/2015/monsanto-sued-in-los-angeles-county-for-false-advertising-on-glyphosate-claim/

The Lawsuits are Coming....

IF YOU WERE DIAGNOSED WITH ANY OF THE FOLLOWING SERIOUS MEDICAL CONDITIONS FOLLOWING EXPOSURE TO MONSANTO'S ROUNDUP YOU MAY BE ENTITLED TO COMPENSATION



NON-HODGKINS LYMPHOMA, HODGKINS LYMPHOMA, SOFT TISSUE SARCOMA, MULTIPLE MYELOMA, LEUKEMIA

Call for a Free Case Evaluation
McDivitt Law Firm
888-212-1322

THE TIME FOR ACCOUNTABILITY IS NOW

www.facebook.com/gmofreesa www.gmofreesa.org www.tou.co/gmofreesa www.facebook.com/gmofreesanadagroup

Kauai's Gary Hooser: Bill 2491



The "Outgrow Monsanto" Movement



Bernie Sanders for President!



- **Hillary Clinton Hired Former Monsanto Lobbyist, Jerry Crawford, to Run Her Campaign**



Summary

- Glyphosate is toxic and it is going to bankrupt America due to astronomical health care costs
- We can expect half the kids born in 2032 to be diagnosed with autism; 80% of the boys
- Obesity, kidney failure, breast cancer, gluten intolerance, and anencephaly are some of the other consequences
- Glyphosate disrupts biological processes through metal chelation, enzyme inhibition, disruption of gut microbes, and many other effects
- Many species are in distress due to glyphosate exposure
- People are waking up and there are many ways to help get the message out
- We need to ban glyphosate from the market, worldwide, and return to sustainable organic agricultural practices