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Everything You Wanted to Know about Glyphosate But Were Afraid to Ask



Stephanie Seneff

MIT CSAIL

November 11, 2017

“It is no measure of health to be well adjusted to a profoundly sick society.”

-Jiddu Krishnamurti

Outline: Part II

- Autoimmune Disease Epidemic
- How Glyphosate Affects the Gut Barrier
- Glyphosate in Vaccines
 - Gut Microbes and Flu Vaccine
 - Glyphosate and MMR Vaccine
- Autoimmune disease through molecular mimicry
- How to Safeguard Yourself and Your Family
- Signs of Hope

Autoimmune Disease Epidemic

America's Children are in Trouble!

- It is now "normal" for a kindergarten child to have 12 colds every year and for a baby to have 9
- Childhood obesity has increased fourfold since the 1980s
- Asthma rate has doubled since the 1980s
- "Chronic illnesses" rose from 1.8% in 1960 to 7% in 2004
 - Today, 43% of US children are chronically ill
- 1 in 6 children in the USA has a neurodevelopmental disability
 - 1 in 38 boys are autistic
- US has the worst neonatal death rate of all industrialized countries
- Today's children in the US will have a shortened life span compared to their parents

Source: <http://www.vaccineviolence.com/>

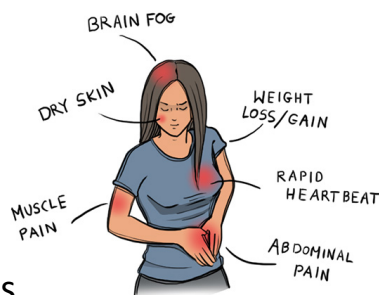
Autoimmune Disease: An Invisible Epidemic*

“Taken together, the number of people suffering from autoimmune diseases is 24–50 million Americans, 16% of the US population. To put it in perspective, autoimmune disease prevalence equals heart disease and cancer combined.”

*Feldman B, Martin EM, Simms T. An Invisible Epidemic — When your body attacks itself — Autoimmune Disease; How Reframing the Data Unveils a Public Health Crisis Bigger than Cancer and Heart Disease Combined. www.tincture.io.

Autoimmune Disease Statistics*

- Autoimmune Disease (AD) is a major health problem
- Annual direct health care costs for AD in US estimated to be ~\$100 billion
- At least 23.5 million Americans suffer from one or more autoimmune diseases
- Among the top-10 causes of death in females under 64 years old
- Immunosuppressant treatments have devastating side effects



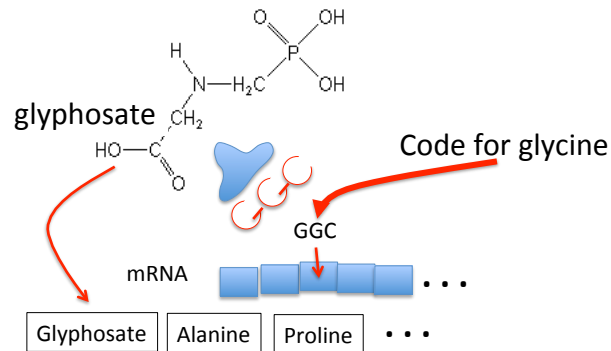
*<https://www.aarda.org/autoimmune-information/autoimmune-statistics/>

Why do we have an epidemic in autoimmune disease in America today?

Hypothesis

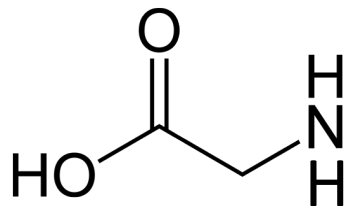
- Glyphosate exposure sets up a weakened immune system, a leaky gut barrier and a leaky brain barrier
- Glyphosate contamination in proteins makes them hard to break down
- Person develops overactive antibody response to foreign protein contaminated with glyphosate
 - Through molecular mimicry, this leads to autoimmune disease
- This easily explains gluten intolerance and other food allergies

What If Glyphosate Could Insert Itself Into Protein Synthesis by Mistake???



Any proteins with conserved glycine residues are likely to be affected in a major way

Glyphosate is a non-coding amino acid analogue of glycine

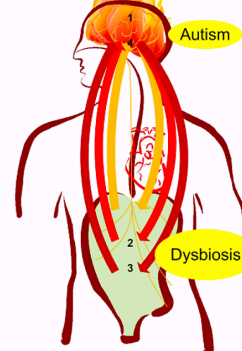


Glypinesate

"We now know that autism is a multifaceted disorder associated with gastrointestinal inflammation, nutritional deficiencies, multiple food allergies and intolerances, impairments in liver detoxification and resultant accumulation of xenobiotics, the majority of which have neurotoxic and/or immunotoxic effects. ...

The behavioral/cognitive abnormalities are symptoms of the underlying complex and interconnected pathophysiology."*

**AUTISM, DYSBIOSIS,
AND THE
GUT-BRAIN AXIS**



DR ALEX VASQUEZ

*Dr. Alex Vasquez. **Biological Plausibility of the Gut-Brain Axis in Autism**
<https://vimeo.com/235896380>

Food Allergies



Food Allergies



All of these foods can be expected to be contaminated with glyphosate, given how they're produced

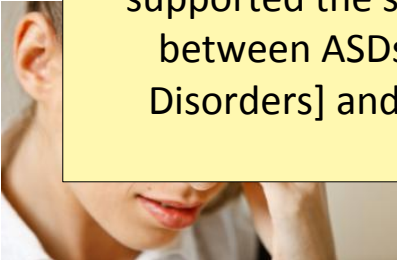


Food Allergies



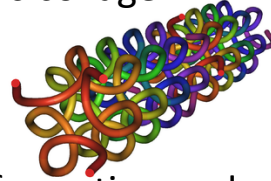
"In our study, with the largest case number reported thus far, the results supported the significant association between ASDs [Autism Spectrum Disorders] and allergic diseases."*

*J Chen et al. Int J Dev Neurosci. 2014 Jun;35:35-41.



Collagen and Gelatin

- 25% of the protein in our body is collagen
- 25% of the amino acids in collagen are glycines
- Glyphosate substitution for glycine will disrupt triple-helix formation and lead to diseases of the vasculature, joints and bones
- Gelatin is derived from collagen in bones and ligaments sourced from cows and pigs fed glyphosate-contaminated GMO Roundup-Ready feed



Products Containing Gelatin !!



Drugs and Autoimmune Disease*

- Drugs that treat autoimmune disease have a huge problem with side effects
 - They suppress the immune system, and increase risk to tuberculosis, invasive fungal infections and lymphomas (cancers of the immune system)
- Humira is a TNF-alpha inhibitor, which blocks the immune response
 - It costs about \$3,100 per month
 - U.S. prescriptions for Humira have taken off in recent years: 1.5 million in 2011; 2.4 million in 2015.
 - It was linked to more than 209,000 adverse event reports since 2013, including more than 4,200 deaths.

* usatoday.com/story/news/nation-now/2017/03/19/analysis-reports-drug-side-effects-increase-fivefold-12-years/99384190/

Chronic Pain*

“The list of different types of chronic pain syndrome seems to be growing every day, including complex regional pain syndrome, failed back syndrome, fibromyalgia, interstitial cystitis, myofascial pain syndrome, postvasectomy pain, vulvodynia, pelvic pain syndrome – and on and on.”



*P. 42, Anna Lembke, Drug dealer, MD
John's Hopkins U Press, Baltimore, MD

US Department of Health and Human Services Data on Pain-Killer Drug Abuse*

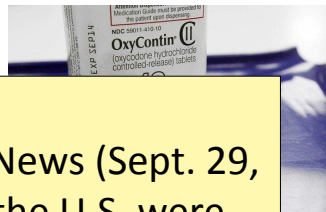
- Drug overdose is the leading cause of injury death in the United States
 - Heroin, morphine, and prescription pain relievers
- More people died from drug overdoses in 2014 than in any previous year on record
- More than 6 out of 10 involved an opioid drug
- More than 650,000 opioid prescriptions are dispensed every day



*<http://www.hhs.gov/opioids/about-the-epidemic/>

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According to PBS Evening News (Sept. 29, 2017), 64,000 deaths in the U.S. were

- attributed to opioid drug overdose in 2016
- More than 6 out of 10 involved an opioid drug
- More than 650,000 opioid prescriptions are dispensed every day

*<http://www.hhs.gov/opioids/about-the-epidemic/>

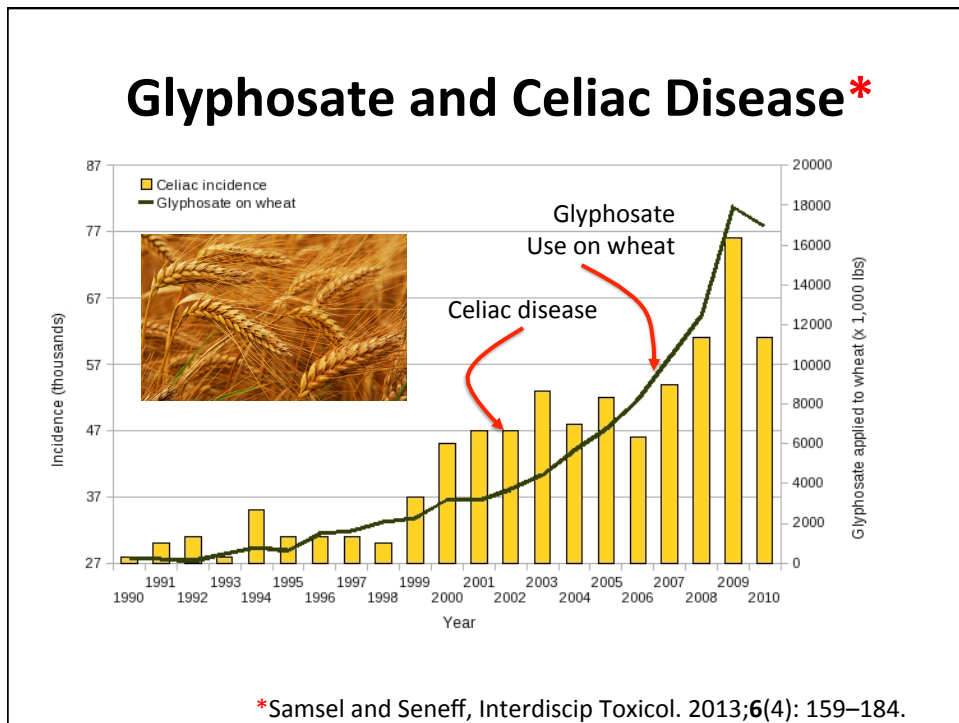
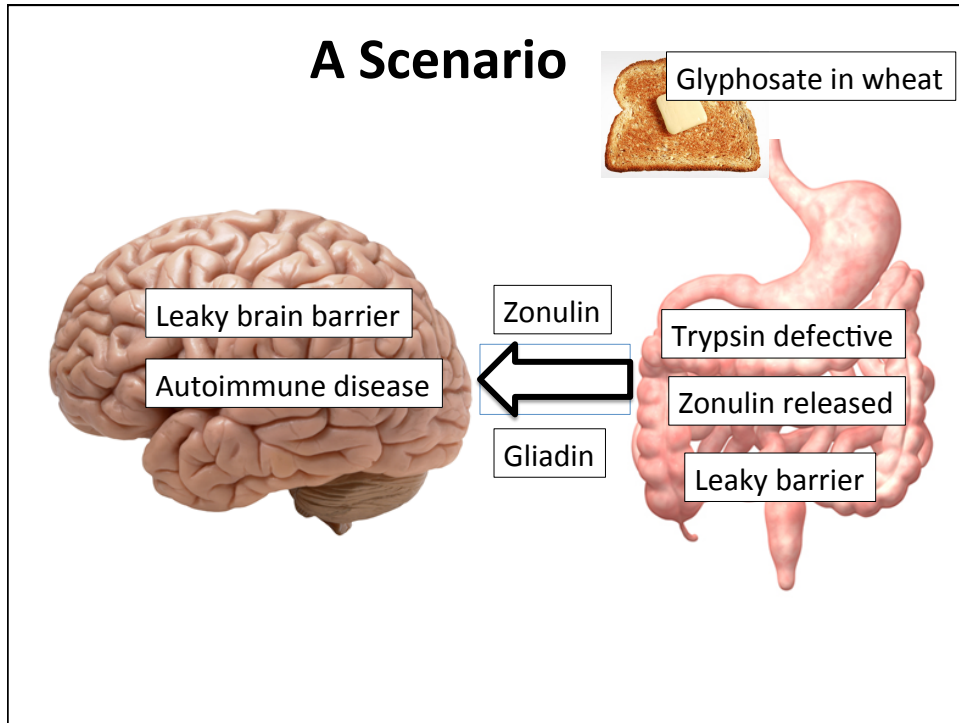
How Glyphosate Affects the Gut Barrier

Glyphosate and the Gut: Digestive Enzymes

- Glyphosate has been found as a contaminant in digestive enzymes trypsin, pepsin and lipase*
- Trypsin impairment prevents proteins like gluten in wheat from being digested
- Undigested proteins induce release of zonulin which opens up gut barrier**
- Zonulin lingers because trypsin is defective

* A Samsel and S Seneff. J Biol Phys Chem 2017;17:8-32

** JJ Gildea et al. J Clin Nutr Diet. 2017, 3:1.

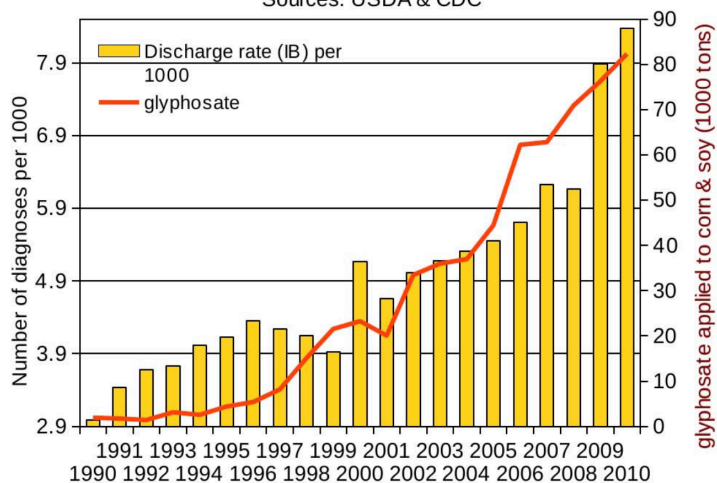


Glyphosate and the Gut: Pathogen Overgrowth

- Glyphosate is an antimicrobial agent that preferentially kills beneficial microbes, allowing pathogens to flourish in the gut*
- Immune cells invade the gut and release inflammatory cytokines
 - This causes increased risk to inflammatory bowel diseases such as Crohn's and ulcerative colitis

* Samsel and Seneff. Entropy 2013; 15: 1416-1463.

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



*Figure 20, NL Swanson et al. Journal of Organic Systems 9(2), 2014, p. 25.

Evidence Linking Autism to Clostridia Overgrowth*

- 14 autistic children with gut disorder compared to 21 controls
- Significant increase in *Clostridia* species in the gut in autistic children
- Associated with reduced tryptophan levels and increased expression of inflammatory markers
 - Tryptophan is a product of the shikimate pathway, which glyphosate blocks
 - Macrophages in inflamed tissue take up tryptophan, reducing bioavailability to the brain
- Proposed role for antibiotics
 - Glyphosate is a patented antimicrobial agent (2010)

*RA Luna et al., Cellular and Molecular Gastroenterology and Hepatology 2017;3(2): 218-230

CASE REPORT

Elevated Urinary Glyphosate and Clostridia Metabolites With Altered Dopamine Metabolism in Triplets With Autistic Spectrum Disorder or Suspected Seizure Disorder: A Case Study*

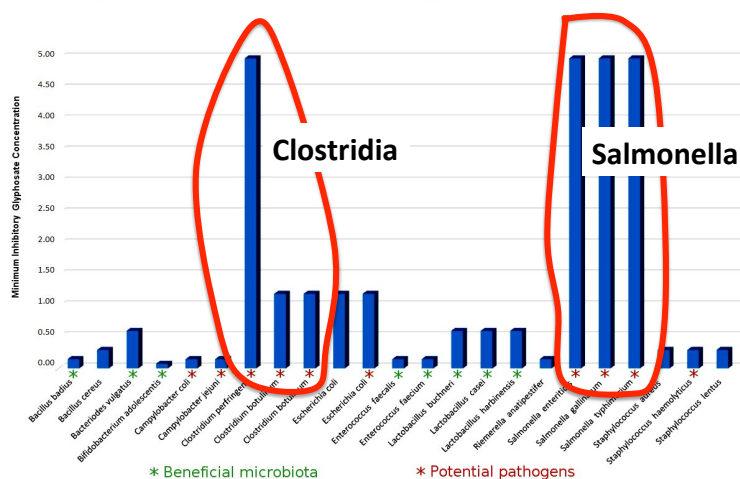
William Shaw, PhD

- Triplets: two boys, one girl. Both boys have autism and girl has seizure disorder
- Very high levels of glyphosate in urine in all three
- *Clostridia* overgrowth due to glyphosate disruption of gut microbes
 - Clostridia produce toxins HPHPA and p-cresol, which block the conversion of dopamine to norepinephrine.
 - Damage to neurons in the brain through oxidative stress

*W. Shaw. Integrative Medicine 2017;16(1);50-57.

Pathogen Overgrowth in Poultry Microbes Exposed to Glyphosate*

Shehata AA, Schrödl W, Aldin AA, Hafez HM, Krüger M. The effect of glyphosate on potential pathogens and beneficial members of poultry microbiota in vitro. Curr Microbiol. 2013 Apr;66(4):350-8.



*Plot provided by Dr. Martin Michener

Recapitulation

- Glyphosate contamination in food proteins makes them hard to break down
- Glyphosate contamination in digestive enzymes makes them defective
 - Undigested proteins induce leaky gut barrier
- Glyphosate induces overgrowth of Clostridia species in gut
 - Clostridia release toxins that induce an inflammatory response and prevent dopamine metabolism
 - Studies on poultry microbiome confirm glyphosate disrupts gut microbes
- Tryptophan deficiency can be explained by shikimate pathway disruption and inflammatory response
- Inflammation in the brain and excessive neurostimulation by dopamine damages neurons

Gut Microbes And Flu Vaccine

LETTER*

doi:10.1038/nature23910

Maternal gut bacteria promote neurodevelopmental abnormalities in mouse offspring

Sangdoon Kim^{1*}, Hyunju Kim^{1*}, Yeong Shin Yim², Soyoung Ha¹, Koji Atarashi³, Tze Guan Tan⁴, Randy S. Longman⁵, Kenya Honda³, Dan R. Littman^{6,7}, Gloria B. Choi² & Jun R. Huh^{1†}



Jun Huh (Harvard) &
Gloria Choi (MIT)

* YS Yim et al. Nature. 2017 Sep 13. [Epub ahead of print]

“Reversing Behavioural Abnormalities in Mice Exposed to Maternal Inflammation”*

- Viral infection during pregnancy induces autism
- Experiment in mice: *simulated* maternal viral infection (poly (I:C))
 - Concurrent with overexpression of specific filamentous pathogen in the mouse gut: a *Clostridium* species
 - These bacteria induce T helper 17 cell responses, a necessary factor for inducing autism
 - Associated with overactivation of neurons in the primary somatosensory cortex of the brain
- *Without the filamentous pathogen*, autistic features were suppressed

*YS Yim et al. Nature 2017 [Epub ahead of print]

“Reversing Behavioural Abnormalities in Mice Exposed to Maternal Inflammation”*

- Viral infection during pregnancy induces autism
- Experiment in mice: *simulated* maternal viral infection (poly (I:C))
 - Note that the experiment DID NOT INVOLVE live virus, but rather a molecule that simulates viral RNA (poly (I:C))
 - Associated with overactivation of neurons in the primary somatosensory cortex of the brain
- *Without the filamentous pathogen*, autistic features were suppressed

*YS Yim et al. Nature 2017 [Epub ahead of print]

"The Centers for Disease Control and Prevention currently recommend that all pregnant women get flu shots -- a dangerous proposition if immune response, rather than infection itself, is responsible for harming the fetal brain."*

*Melinda Wenner. Scientific American Mind. pp. 46-47

CDC Study Shows Up to 7.7 Times the Risk of Miscarriage After Influenza Vaccine*,**

"Most alarmingly, in women who received the H1N1 vaccine in the previous flu season, the odds of spontaneous abortion in the 28 days after receiving a flu vaccine was 7.7 times greater"

*<https://worldmercuryproject.org/news/cdc-study-shows-up-to-7-7-times-the-risk-of-miscarriage-after-influenza-vaccine/>

**Donahue et al. 2017 Vaccine 35:5314

Association Between Influenza Infection and Vaccination During Pregnancy and Risk of Autism Spectrum Disorder*

- Kaiser Permanente Study, Northern California
- 196,929 children; 0.7% of mothers had flu during pregnancy, 23% got flu vaccine
- First-trimester influenza vaccine was associated with *20% increased ASD (Autism Spectrum Disorder) risk*
- Flu infection was not associated with ASD

*O Zerbo et al. JAMA Pediatr. 2017 Jan 2;171(1):e163609.

Guillain-Barré after Flu Shot*

"The most commonly compensated injury in the US National Vaccine Injury Compensation Program is Guillain-Barré Syndrome occurring after the *flu shot*. GBS is an autoimmune reaction in which the body attacks itself causing paralysis."

-- Andre Angelantoni. Sep 30, 2017.

*<https://medium.com/@andreangelantoni/there-are-several-significant-errors-the-doctor-includes-in-her-article-6dfc196afd9b>

Glyphosate, Mercury and Autism

- Glyphosate induces excess of Desulfovibrio species in gut (reduce sulfite)
- Desulfovibrio converts mercury to toxic form: methyl mercury*
- Desulfovibrio is associated with autism**
- Flu vaccine often contains mercury***

*D Shao et al. Sci Total Environ. 2012 May 1;424:331-6.

**SM Finegold. Med Hypotheses. 2011 Aug;77(2):270-4.

*** CDC: <https://www.cdc.gov/flu/protect/vaccine/thimerosal.htm>

Glyphosate, Mercury and Autism

- Glyphosate induces excess of Desulfovibrio
- "Results of the current meta-analysis revealed that mercury is an important causal factor in the etiology of ASD. It seems that the detoxification and excretory mechanisms are impaired in ASD patients which lead to accumulation of mercury in the body."*

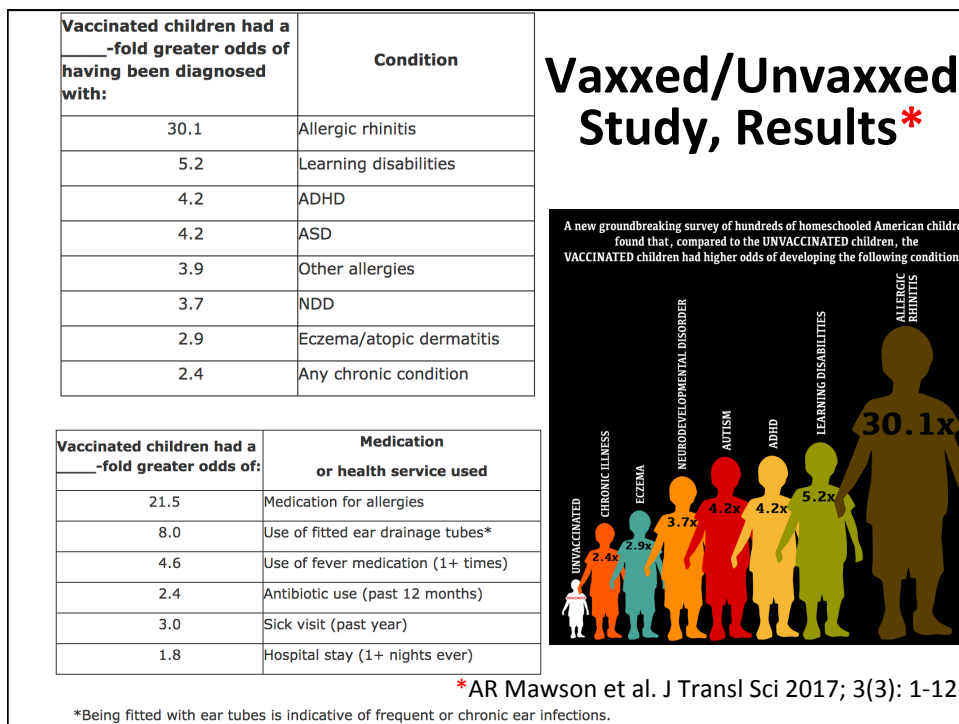
*T Jafari et al. Journal of Trace Elements in Medicine and Biology 2017;44: 289-297.

Glyphosate and MMR Vaccine

Vaxxed/Unvaxxed Study*

- Children aged 6-12; home-schooled
- Vaccinated children were significantly less likely than the unvaccinated to have had chickenpox and pertussis
- However, the vaccinated had higher rates of allergies and autism, ADHD, and/or a learning disability than the unvaccinated

*AR Mawson et al. J Transl Sci 2017; 3(3): 1-12.



MMR and Autism

- Andrew Wakefield found a connection in 1998 in a now retracted publication*
- CDC claimed proof of no link in 2004 paper**
- Whistleblower, Dr. William Thompson, has stated:
 - Data supported significant increased risk for autism in black males with early vaccine
 - Demand for birth certificate hid this finding

*A Wakefield et al., *The Lancet* 1998; **351** (9103): 637–41. (RETRACTED)

**F DeStefano et al., *Pediatrics* 2004;113:259-266 .

Somali Parents' Rational Concerns About Vaccine Safety*

- Measles outbreak in Minnesota blamed on low vaccination rate among Somalis.
 - 79 confirmed cases, no deaths or disabilities
- Risk of death from measles is 1 in 1,785,000.
 - Only 1 confirmed death from measles in US since 2003
- Risk of disability from measles is 1 in 2 million.
- Risk of severe autism in Somalis in Minnesota is 1 in 32 (highest rate in the world).
 - Somalis don't have a word for autism in their language.

*RF Kennedy, Jr. worldmercuryproject.org/news/somali-parents-rational-concerns-vaccine-safety
Oct. 19,2017

"Empirical Data Confirm Autism Symptoms Related to Aluminum and Acetaminophen Exposure"*

- We found a significant link between MMR and autism ($p = 0.007$)
 - We were puzzled, because it doesn't contain aluminum and it doesn't contain mercury
 - We blamed it on the acetaminophen
- We were partly right!
 - Glyphosate suppresses the liver CYP enzymes that are needed to metabolize acetaminophen



*S Seneff et al., Entropy 2012, 14, 2227-2253.

“Sulphation Deficit in ‘Low-Functioning’ Autistic Children: a Pilot Study.”*

- Specifically looked at ability to metabolize acetaminophen
- Found highly statistically significant result:
 - Autistic kids were unable to conjugate acetaminophen with *sulfate!* ($p < .00002$)
- Glyphosate disrupts multiple enzymes involved in sulfation pathway in E coli**

*AA Pirrone et al., Biol Psychiatry. 1999 Aug 1;46(3):420-4.

**W. Lu et al., Mol. BioSyst., 2013, 9, 522-530.

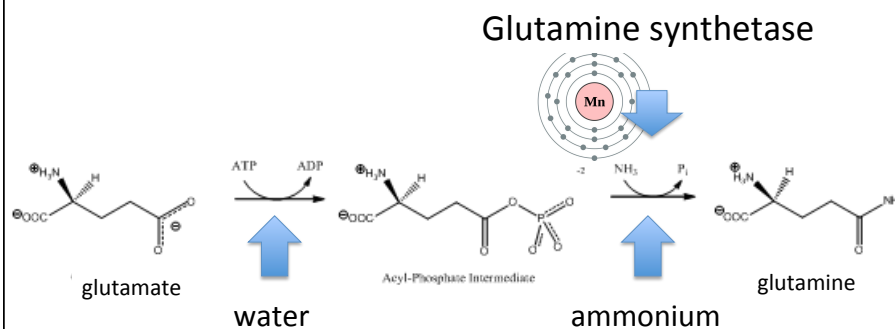
Glutamate is an Additive in Vaccines!

- Flu vaccines (FluMist), MMR (measles, mumps and rubella), Rabies vaccine and Varicella vaccine (chicken pox) all contain glutamate
- Anecdotal evidence links these vaccines with autism
- My own studies on VAERS revealed a correlation between autism and MMR*
- **Glyphosate’s depletion of manganese prevents glutamate breakdown**



*S. Seneff et al., Entropy 2012, 14, 2227-2253.

Glutamate Detoxification Depends on Manganese!



Ammonium and glutamate toxicity in the brain can arise because of insufficient manganese

“Alteration of Plasma Glutamate and Glutamine Levels in Children with High-Functioning Autism”*

Amino acid	Control	HFA	p-value
Alanine	326.1±61.6	300.3±55.0	0.145
α-Aminobutyric acid	18.8±3.8	18.7±5.4	0.971
Arginine	89.1±19.0	95.3±18.5	0.279
Asparagine	40.8±8.3	43.1±7.0	0.311

Glutamate	20.9±4.5	27.9±7.4	<0.002*
Glutamine	513.1±48.5	445.8±50.6	<0.0004**

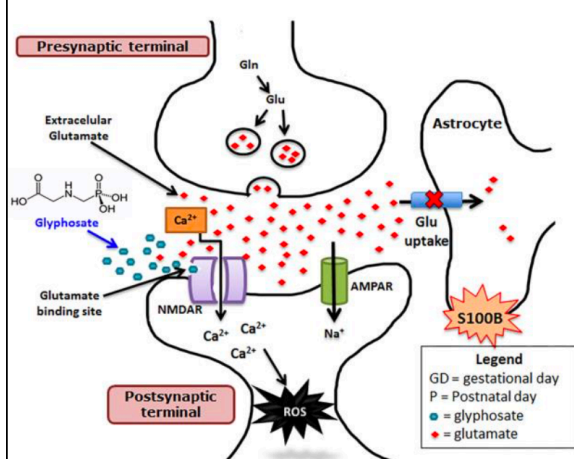
Isoleucine	53.6±11.5	62.2±14.5	0.033
Leucine	99.0±16.1	106.4±22.4	0.210
Lysine	155.3±28.5	164.2±32.5	0.332
Methionine	23.7±5.1	25.8±5.6	0.203
Ornithine	43.9±11.3	51.9±10.8	0.021
Phenylalanine	51.7±6.8	55.1±8.4	0.146
Proline	153.7±56.4	131.7±47.6	0.165
Serine	105.4±15.6	115.8±14.7	0.027
Taurine	33.4±5.5	37.8±7.9	0.036
Threonine	100.8±19.7	112.0±24.3	0.097
Tryptophan	44.8±5.6	47.3±6.4	0.167
Tyrosine	60.9±10.5	58.4±10.1	0.425
Urea	3976.3±818.7	3759.9±773.3	0.367
Valine	200.2±29.4	217.1±29.7	0.062

*C. Shimmura et al.
PLoSone October
2011 6(1):e25340

Glyphosate in Vaccines?

- For MMR, flu vaccine, and rabies vaccine, live virus is grown on *gelatin* derived from ligaments of pigs and *fetal bovine serum*
 - Cows and pigs are fed GMO Roundup-Ready corn and soy feed
- Gelatin is derived from collagen which is highly enriched in *glycine* and also contains *glutamate*
 - These two neurotransmitters excite the NMDA receptors in the brain
- Glyphosate stimulation of NMDA receptors could cause neuronal burnout

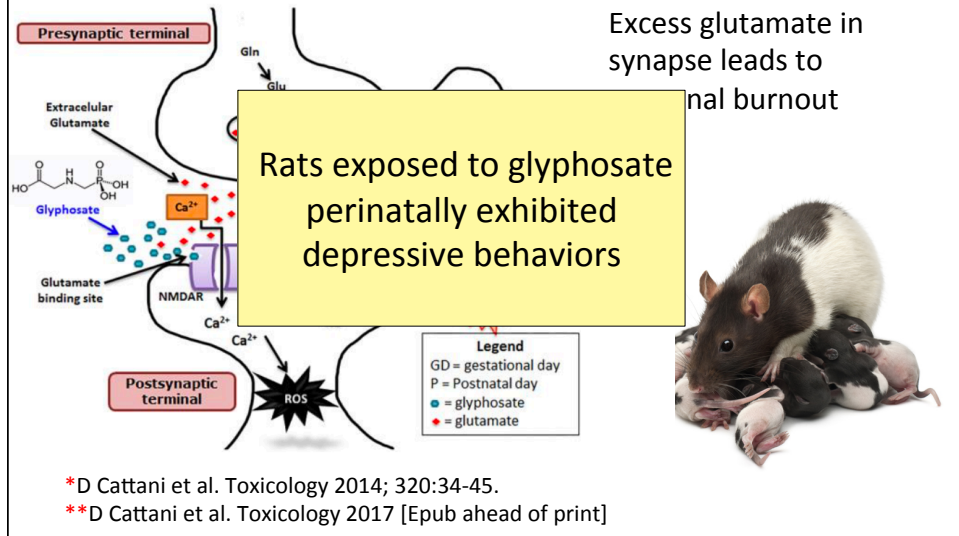
Glyphosate Excites NMDA Receptors in Hippocampus*,**



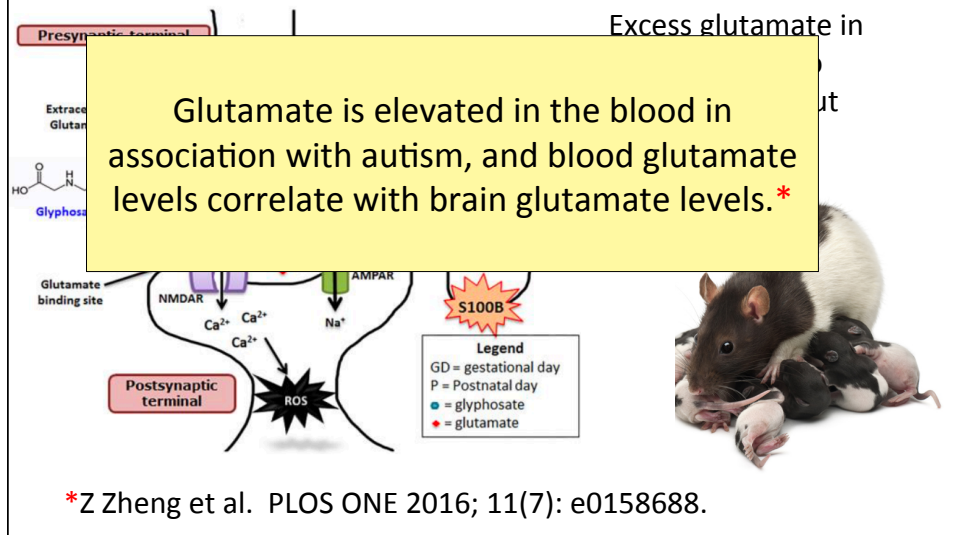
*D Cattani et al. Toxicology 2014; 320:34-45.

**D Cattani et al. Toxicology 2017 [Epub ahead of print]

Glyphosate Excites NMDA Receptors in Hippocampus^{*,**}



Glyphosate Excites NMDA Receptors in Hippocampus^{*,**}



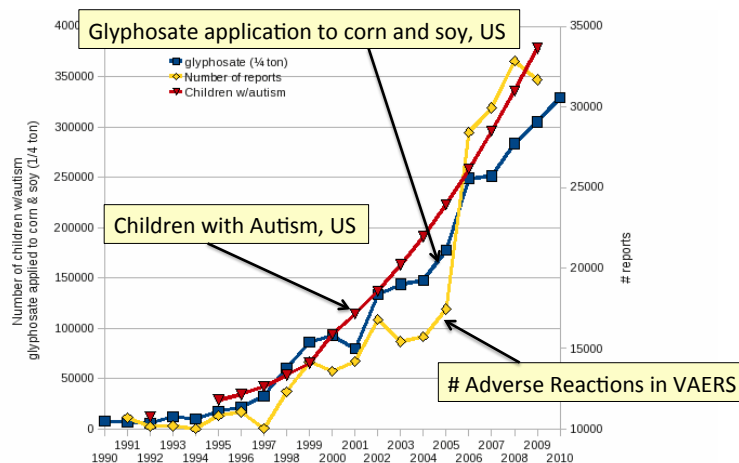


Behavioral impairments following repeated intranasal glyphosate-based herbicide administration in mice

Carlos Javier Baier ^{a, b, c, ✉}, Cristina Eugenia Gallegos ^{b, c}, Rita Raisman-Vozari ^d, Alejandra Minetti ^{b, c}

- Intranasal glyphosate-based herbicide caused behavioral disorders in mice
 - Decreased locomotor activity
 - Caused anxiety
 - Produced memory deficits

Autism, Glyphosate, Vaccine Reactions*



* Data readily available from the CDC, FDA (VAERS) and USDA



25SA16A

Glyphosate pathways to modern diseases VI: Prions, amyloidoses and autoimmune neurological diseases

Anthony Samsel¹ and Stephanie Seneff^{2,*}

¹ Samsel Environmental and Public Health Services, Deerfield, NH 03037, USA

² Computer Science and Artificial Intelligence Laboratory, MIT, Cambridge, MA 02139, USA

Usage of the herbicide glyphosate on core crops in the USA has increased exponentially over the past two decades, in step with the exponential increase in autoimmune diseases including autism, multiple sclerosis, inflammatory bowel disease, type 1 diabetes, coeliac disease, neuromyelitis optica and many others. In this paper we explain how glyphosate, acting as a non-coding amino acid analogue of glycine, could erroneously be integrated with or incorporated into protein synthesis in place of glycine, producing a defective product that resists proteolysis. Whether produced by a microbe or present in a food source, such a peptide could lead to autoimmune disease through molecular mimicry. We discuss similarities in other naturally produced disease-causing amino acid analogues, such as the herbicide glufosinate and the insecticide L-canavanine, and provide multiple examples of glycine-containing short peptides linked to autoimmune disease, particularly with respect to multiple sclerosis. Most disturbing is the presence of glyphosate in many popular vaccines including the measles, mumps and rubella (MMR) vaccine, which we have verified here for the first time.

*A Samsel and S Seneff, Journal of Biological Physics and Chemistry 2017;17:8-32.



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Glyphosate pathways to modern diseases VI: Prions, amyloidoses and autoimmune neurological diseases

Anthony Samsel¹ and Stephanie Seneff^{2,*}

¹ Samsel Environmental and Public Health Services, Deerfield, NH 03037, USA

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Glyphosate Contamination in Vaccines (Parts Per Billion)*

Merck	ZOSTAVAX	0.62	Shingles
Merck	MMR-II	3.74	Measles, Mumps and Rubella
Merck	VARIVAX	0.56	Varicella, Chicken Pox
MERCK	PNEUMOVAX	ND	Pneumococcal 18
MERCK	PROQUAD	0.66	Measles, Mumps, Rubella, Varicella
GSK	ENERGIX-B	0.34	Heptatitis B
Novartis	INFLUENZA	0.23	Flu

*A Samsel and S Seneff, Journal of Biological Physics and Chemistry 2017;17:8-32.

Symptoms of Adverse Reactions to MMR before and after 2002*

More Common Before 2002

Reaction	Count Before 2002	Count After 2002	<i>p</i> -value
joint pain	126	65	0.036

More Common After 2002

Reaction	Count Before 2002	Count After 2002	<i>p</i> -value
hospitalization	71	319	0.00037
seizures	203	462	0.0014
shortness of breath	100	216	0.010
hives	324	504	0.011
mumps	5	51	0.014
abscess	51	120	0.022
autism	69	143	0.024
eczema	4	36	0.026
ear infection	16	56	0.031
anaphylactic shock	16	54	0.034
facial swelling	45	95	0.040
swelling	860	1018	0.048

Data analyzed from the VAERS database

*A Samsel and S Seneff. J Biol Phys Chem 2017;17:8-32

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anaphylaxis	89	143	0.024
eczema	4	36	0.026
ear infection	16	56	0.031
anaphylactic shock	16	54	0.034
Facial swelling	45	95	0.040
swelling	860	1018	0.048

These are all characteristic symptoms of allergies to MSG

Data analyzed from the VAERS database

*A Samsel and S Seneff. J Biol Phys Chem 2017;17:8-32

Recapitulation

- Vaxxed/Unvaxxed study reveals neurological and autoimmune disease prevalence among the vaxxed
- MMR vaccine may be causal factor in autism epidemic
 - Glutamate toxicity
 - Acetaminophen toxicity (impaired sulfation)
 - Glyphosate contamination
- Glyphosate and glutamate are synergistically neurotoxic through excitation of NMDA receptors

Autoimmune Disease through Molecular Mimicry



Journal of Developing Drugs

Anumugham, J Develop Drugs 2015, 4:4
<http://dx.doi.org/10.4172/2329-6631.1000137>

Case Report

Open Access

Evidence that Food Proteins in Vaccines Cause the Development of Food Allergies and Its Implications for Vaccine Policy

Vinu Arumugham*
San Jose, CA, USA

Abstract

Nobel Laureate Charles Richet demonstrated over a hundred years ago that injecting a protein into animals or humans causes immune system sensitization to that protein. Subsequent exposure to the protein can result in allergic reactions or anaphylaxis. This fact has since been demonstrated over and over again in humans and animal models.



“Nobel Laureate Charles Richet demonstrated over a hundred years ago that injecting a protein into animals or humans causes immune system sensitization to that protein. Subsequent exposure to the protein can result in allergic reactions or anaphylaxis. This fact has since been demonstrated over and over again in humans and animal models.”

Large Proteins in Vaccines: Allergenic*

“Vaccines clog our lymphatic system and lymph nodes with *large protein molecules* which have not been adequately broken down by our digestive processes, since *vaccines bypass digestion* with injections. This is why vaccines are linked to *allergies*, because they contain large proteins which as circulating immune complexes (CICs) or 'klinkers' cause our body to become allergic.”

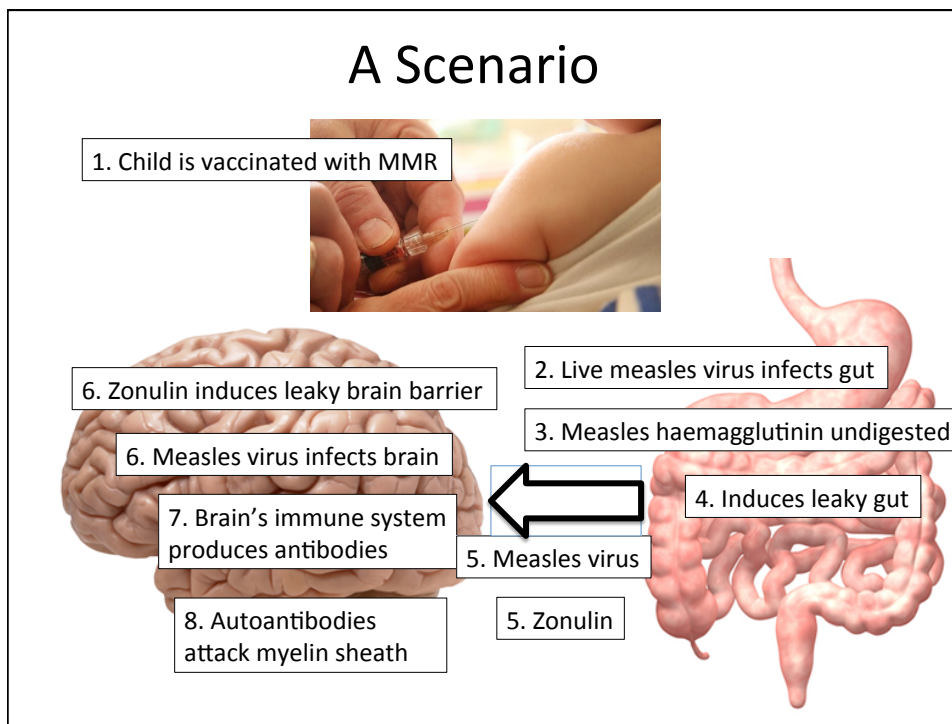
*Dave Mihalovic, ND, http://whale.to/v/vaccines_cause_allergies.html

The Purdue Vaccination Studies and Autoantibodies*

“The Purdue studies ... found that vaccinated dogs were developing autoantibodies to their own *collagen*”



*<http://www.dogsnaturallymagazine.com/purdue-vaccination-studies/>



Measles Virus and Haemagglutinin*

- The measles virus synthesizes the protein haemagglutinin
 - Antibodies to haemagglutinin are essential following MMR vaccination to induce immunity
- Measles virus infects brain due to leaky barrier
- Haemagglutinin bears a sequence resemblance to myelin basic protein (MBP) → potential for autoimmune reaction
- MBP is essential for the formation of the myelin sheath surrounding nerve fibers
- Autoantibodies to MBP along with excessive levels of antibodies to measles haemagglutinin are linked to autism**

*Oldstone, MBA, Ed. Molecular mimicry: Infection inducing autoimmune disease. Springer Berlin Heidelberg; January 9, 2006.

**VK Singh et al., J Biomed Sci 2002;9(4):359-64.

Autism and Measles Haemagglutinin*

- 125 autistic children and 92 control children
- 60% of the children with autism had high levels of antibodies to measles haemagglutinin specific to the MMR vaccine
 - 90% of these had autoantibodies to myelin basic protein (MBP)
- 0% of the control children had high antibody titers to either haemagglutinin or MBP
- There were no elevations in antibodies detected against any proteins in the mumps or rubella viruses

*VK Singh et al., J Biomed Sci 2002;9(4):359-64.

Recapitulation

- Many vaccines contain proteins that can be allergenic, including food proteins such as soy, casein, peanuts
 - Injected proteins bypass gut metabolism
- Vaccinated dogs are developing autoimmune attack on collagen – glyphosate connection?
 - Is this a problem with humans as well?
- Measles haemagglutinin in MMR is linked to autism through molecular mimicry
 - Myelin sheath attacked by brain's immune system
 - Autistic children had much higher titers of antigens to haemagglutinin, as well as autoantibodies to myelin basic protein

How to Safeguard Yourself and Your Family

Some Strategies Clinicians are Using to Treat Autism and Other Diseases

- Switch to 100% certified organic diet rich in sulfur, fermented foods and flavonoids (colorful fruits and vegetables), herbs, spices
- Vancomycin antibiotic (preferentially kills Clostridia species) followed by ...
- Fecal transplant and/or probiotic supplements
- Treat glyphosate-contaminated water with reverse osmosis filter and then add back minerals
- Fulvic acid and humic acid (soil organic matter) and bentonite clay can bind glyphosate and clear it through feces

Biochar, Bentonite and Zeolite to Maintain Healthy Microbial Distribution in Poultry*



*TP Prasai et al. PLoS ONE 11(4): e0154061.

Anecdotal Evidence of Benefits of Fulvic Acid*

*"In the last year I have become increasingly sick with ataxia, balance problems, muscle weakness, numbness in the hands and feet and a 'foggy' brain ... To cut a long story short, Jim suggested **Fulvic Acid** as a detox.*

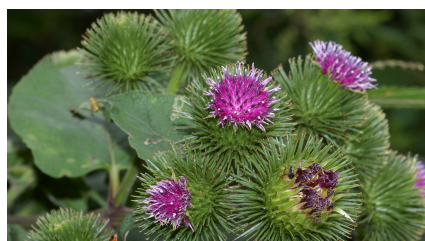
At 10 days the effects started to 'kick in' and by 14 days it was as if a fog had been lifted from my brain. My muscle weakness has gone, I can walk for 2 hours and I can swim in the sea."

"It is a miracle."

*Shared by Nico DaVinci, personal communication concerning a patient

Extracts from Common Plants Can Treat Glyphosate Poisoning*

- Roundup is toxic to hepatic and embryonic cells at doses far below those used in agriculture and at residue levels present in some GM food.
- Extracts from common plants such as dandelions, barberry, and burdock can protect from damage, especially if administered prior to exposure.



*C Gasnier et al. Journal of Occupational Medicine and Toxicology 2011, 6:3

Some Important Nutrients

- Curcumin
- Garlic
- Vitamin C
- Probiotics
- Methyl tetrahydrofolate
- Cobalamin
- Glutathione
- Taurine
- Epsom salt baths





- Sauerkraut and apple cider vinegar contain acetobacter, one of the very few microbes that can metabolize glyphosate
- Yogurt and kimchi probably do too



Kefir: Natural Probiotics*

- Kefir is a fermented milk product originating in the Caucasus mountains centuries ago
- Can be made from milk from cows, sheep and goats
- Slightly sour and carbonated
- One of the most potent probiotic foods available



*<https://chriskresser.com/kefir-the-not-quite-paleo-superfood/>

Summary

- Glyphosate's insidious cumulative toxicity may be due to its ability to get into proteins by mistake in place of glycine
- Autoimmune disease leading to excessive pain may explain the opioid drug abuse epidemic
- Glyphosate has been detected in multiple vaccines, with highest concentrations in MMR
- Glyphosate and glutamate (from the vaccine) can excite NMDA receptors, and cause neuronal burnout
- Glyphosate contamination leads to resistance to breakdown and autoimmune disease through molecular mimicry
 - A causal link between MMR and autism can be explained through autoimmune attack on myelin basic protein via molecular mimicry with measles haemagglutinin
- Multiple large proteins found in vaccines are allergenic and they may be a causal factor in food allergies and anaphylaxis

Signs of Hope...

The Big Picture

Background

- Weeds → Roundup → Glyphosate
- Mega farms => GMOs (Roundup-Ready Crops)

The Problem

- We were told glyphosate is safe, since it disrupts the shikimate pathway that humans do not have
- But our gut bacteria have it, and they provide essential services to us

Consequences

- Incidence of many diseases has sky-rocketed
- Many creatures are affected; the earth is suffering

What to do

- Change the way we grow and consume food
- Educate and investigate
- Advocate → legislate, litigate
- Extend our time horizon → for our grandchildren's' grandchildren

BREAKING NEWS
FRANCE TO BAN GLYPHOSATE WEEDKILLERS

France announced the country will phase out glyphosate based herbicides, including Monsanto's Roundup, by 2022, citing the dangers it poses to public health.

“DEPENDING ON OUR DECISIONS,
JUSTICE AND HISTORY WILL CATCH UP WITH US.”
NICOLAS HULOT, FRENCH MINISTER OF ECOLOGY

**THE REST OF THE WORLD NEEDS TO JOIN
THE RIGHT SIDE OF JUSTICE AND HISTORY.**

BAN GLYPHOSATE.



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EU Member States Say No to Glyphosate Again: 5 Year Authorization Fails

Posted on Nov 9 2017 - 1:28pm by Sustainable Pulse [« PREVIOUS](#) |

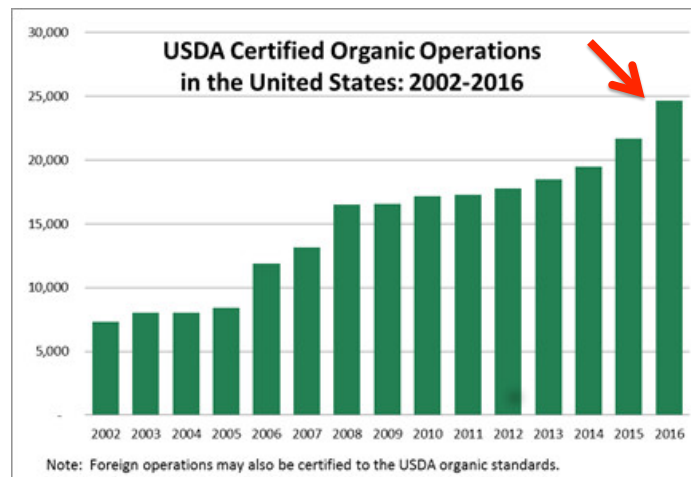
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 Breaking News
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 European Commission
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 Germany
 glyphosate
 percent
 result
 vote

The Great Glyphosate Rebellion continued Thursday in the European Union, as EU member states refused to back the 5-year license renewal for glyphosate, the world's most used herbicide.



This is Good News!*



*<https://www.ams.usda.gov/press-release/2016-count-certified-organic-operations-shows-continued-growth-us-market>

Certified Glyphosate Free



MegaFood Certifies Entire Line of Supplements Glyphosate Residue Free

The certification was granted by The Detox Project, an independent research and certification organization

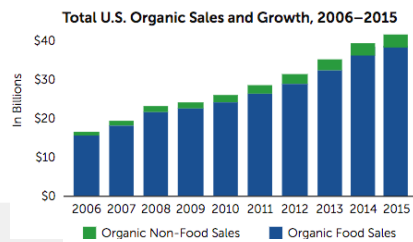
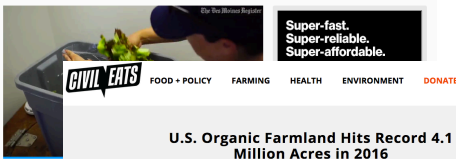
Growth of Organic Farms and Foods

Des Moines Register

HOME NEWS SPORTS THINGS TO DO BUSINESS COMMENTARY OPINION ARCHIVES USA TODAY SUBSCRIBE THANKSGIVING MORE

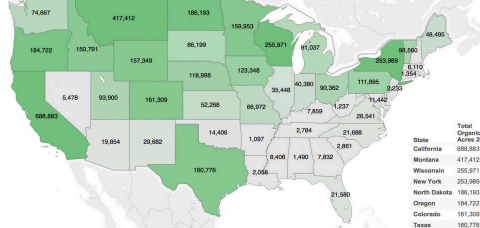
Looking for greater profits, more Iowa farmers move to organic corn, soybeans

Donnelle Eller, deller@dmreg.com Published 8:43 a.m. CT Nov 3, 2017



U.S. Organic Farmland Hits Record 4.1 Million Acres in 2016

Dispatch Urban Gardens and farm stand selling organic produce. California still reigns supreme when it comes to organic farmland, but several other states are catching up.



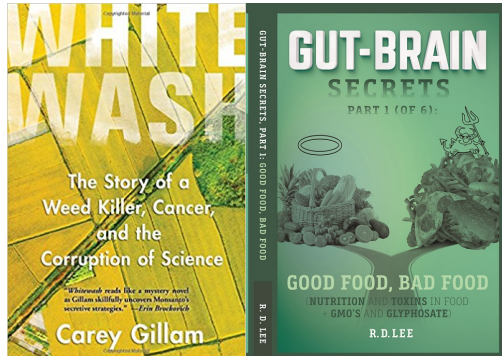
Educate



About the Weston A. Price Foundation

The Weston A. Price Foundation (WAPF) is your source for accurate information on nutrition and health, always aiming to provide the scientific validation of traditional foodways. People seeking health today often condemn certain food groups – such as grains, dairy foods, meat, salt, fat, sauces, sweets and nightshade vegetables – but the Wise Traditions Diet is inclusive, not exclusive.

We show you how to include all these nourishing traditional foods in your diet through wise choices and proper preparation techniques. The result is vibrant health for every age of life, including the next generation. [Read more...](#)



Investigate and Advocate

COUNTRY	NUM	POS	ASSESSMENT
CANADA	1385	140	WORST
FRANCE	1192	129	WORST
UNITED STATES	1428	84	WORST
TURKEY	27	179	BAD
TAININ	21	140	BAD
POLAND	16	160	BAD
SPAIN	474	24	BAD
ITALY	11	11	CAUTION



The New York Times
Eating Organic Lowers Pesticide Levels in Children
 BY NICHOLAS BAKALAR OCTOBER 8, 2015 11:16 AM

Researchers have found that when children eat organic fruits and vegetables, the amount of pesticides in their bodies declines significantly.

Legislate



GlobalResearch
Centre for Research on Globalization
globalresearch.ca / global-research.org

US Nato War
Economy
Civil Rights
Environment
Poverty
Media
Justice
9/11
War Crimes
Militarization

Sri Lanka's President Bans Glyphosate Nationwide to Protect the Health of the People

By L.D. Hayes
Global Research, June 09, 2015
Natural News 8 June 2015



In one of his first official acts, Maithripala Sirisena, announced the ban on the world's most used herbicide, Roundup, and that the release of stock will.

As noted by the Sustainable Living News, "When announcing his decision, Sirisena said he was responsible for a growing number of chronic kidney diseases in Sri Lanka. He said the decision would further protect the country's farming community."

Los Angeles Restricts Use of Monsanto's Roundup in Public Areas

Posted on Oct 27 2017 - 12:48pm by Sustainable Pulse

Categorized as Breaking News News

Tagged as active ingredient: glyphosate; concern: Councilman Mike Bonin; herbicides: Monsanto Roundup; Parks Department; World Health Organization

Source: <https://www.scpnr.org>

EU on brink of historic decision on pervasive glyphosate weedkiller

Glyphosate is found in 60% of UK bread and environmentalists welcome a ban but industry warn of uproar among farmers if herbicide is phased out



Litigate

Suit Claims Exposure to Roundup Caused Non-Hodgkin's Lymphoma Death

By Vititoe Law Group Staff posted in [Products Liability Law](#) on June 18, 2017.

The family of an Illinois woman claims exposure to Roundup caused her fatal case of non-Hodgkin's lymphoma in a recently filed lawsuit.

The personal representative and heir of Stephanie Bare-Vititoe filed a lawsuit earlier this month, in the U.S. District Court for the Eastern District of Illinois, against Monsanto Company.

FOOD FOR THOUGHT

Pesticides

The Monsanto Papers: MDL Glyphosate Cancer Case Key Documents & Analysis

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More than 270 lawsuits are pending against Monsanto Co. in U.S. District Court in San Francisco, filed by people alleging that exposure to Roundup herbicide caused them or their loved ones to develop non-Hodgkin lymphoma, and that Monsanto covered up the risks. The cases have been combined for handling as multidistrict litigation under Judge Vince Chhabria. The lead case is 3:16-md-02741-VC. Additionally, at least 1,100 plaintiffs have made similar claims against Monsanto in state courts. The first trial in the Roundup litigation is set for June 18, 2018 in the Superior Court for the County of San Francisco.

On March 13th, U.S. District Judge Vince Chhabria ruled — over Monsanto's objections — that certain documents obtained by plaintiffs through discovery could be unsealed. The documents listed below include discovery materials, transcripts of court proceedings, depositions and other case-related items.

As of July 3, 2017, the schedule for adjudication of the MDL litigation is:
 Close of Expert Discovery due by 9/22/2017.
 Defendant's Summary Judgment and Daubert Motions due by 10/6/2017.
 Plaintiffs' Cross Motions and opposition due by 10/27/2017.

A Hopeful Message*

“It’s interesting that in 2016, for the first time in almost 20 years, what we saw is a decrease in the amount of acreage where genetically engineered crops are growing around the world. This represents the fact that this technology is failing, in the sense of superweeds and superpests are popping up all over the world.”

*Ronnie Cummins, founder of the
Organic Consumers Association*

*articles.mercola.com/sites/articles/archive/2017/03/26/market-rejection-of-gmos-grows.aspx