

# Roundup, MMR and Autism -- A Toxic Connection

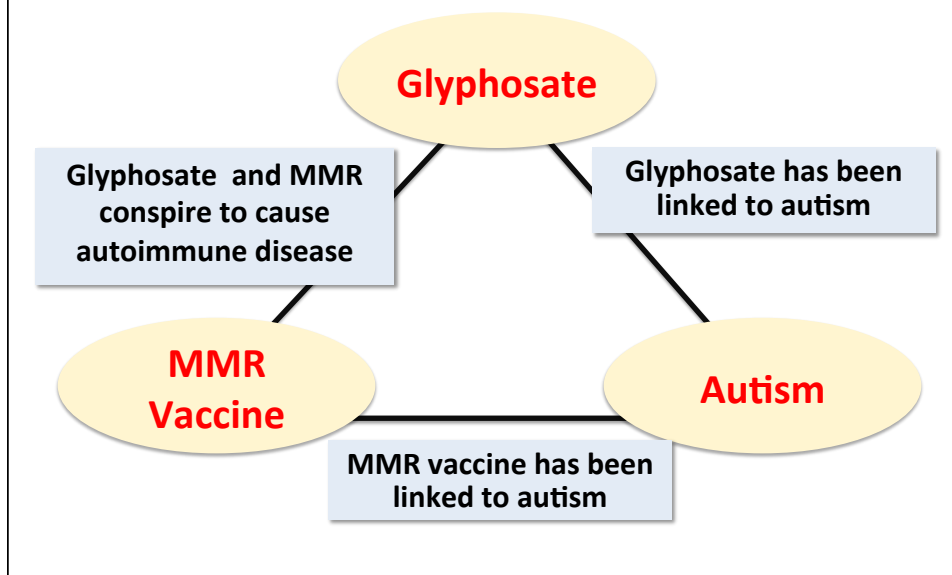
Stephanie Seneff  
MIT CSAIL  
Aug. 4, 2016



**In a time of universal deceit,  
telling the truth is a revolutionary act.**

— George Orwell

## Key Take Away Message



## Outline

- Introduction
- Glyphosate, glutamate, manganese and autism
- Glyphosate as a glycine analogue
- Vaccines
  - MMR, glyphosate and autoimmunity
  - Gardasil (HPV Vaccine)
- How you can protect yourself and your family
- Summary

**THIS IS THE NEW CHILDHOOD IN AMERICA:**

- 1 in 3 is overweight
- 1 in 6 has learning disabilities
- 1 in 9 has asthma
- 1 in 10 has ADHD
- 1 in 12 has food allergies
- 1 in 20 has seizures
- 1 in 54 males has autism
- 1 in 68** has autism

50% (half) of all children have chronic illness or are overweight.

This is the **NEW NORMAL** in our country.

Are you concerned yet?!  
Because if you're not,  
then you are not paying attention!

## 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*

“Chronic and autoimmune diseases are now epidemic in America. Marked by such symptoms as fatigue, brain fog, gastro-intestinal problems, achy joints, low-level fevers, rashes, fibromyalgia, neurodegenerative diseases, obsessive compulsive disorder, and ADHD, these emerging illnesses have become severely debilitating to the public and extremely profitable for pharmaceutical companies who now make billions in palliative treatments aimed at managing symptoms.”

*Dylan Charles, Editor, Waking Times*



## Roundup and GMO Crops

GMO Roundup-Ready corn, soy, canola, sugar beets  
cotton, tobacco and alfalfa



## Roundup as a Desiccant/Ripener just before Harvest

Wheat, Oats, Barley, Rye,  
Sugar cane, Beans, Lentils,  
Peas, Flax, Sunflowers,  
Pulses, Chick Peas



## “Herbicide Resistant Ryegrass Troubling for Wheat Growers”\*

“If you see ryegrass at harvest following an Axial XL application, it may be resistant. And you can scatter seed all over the field with the combine.”

“A reduced-tillage approach, using a *burndown herbicide* ahead of planting in a stale seedbed, also holds promise for improved control.”

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

-- Jim Swart, integrated pest management specialist

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

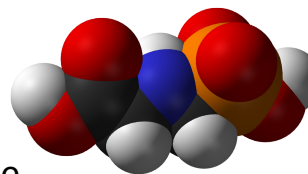
## “Glyphosate Now the Most-Used Agricultural Chemical Ever”\*

By Douglas Main, Feb 2, 2016 Newsweek

- Glyphosate usage has increased 50-fold since 1996, when GMO glyphosate-resistant crops were introduced in the US.
- Today, 50 times more glyphosate is allowed by the EPA on corn grain than in 1996
- Half of the American farmers' fields have weeds that are resistant to glyphosate
- New GMO crops offer dual resistance to glyphosate & 2,4-D → Enlist Duo

\*[www.newsweek.com/glyphosate-now-most-used-agricultural-chemical-ever-422419](http://www.newsweek.com/glyphosate-now-most-used-agricultural-chemical-ever-422419)

## ***Is Glyphosate Toxic?***



- 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 and are themselves toxic
- Insidious effects of glyphosate accumulate over time
  - Most studies are too short to detect damage

## **Main Toxic Effects of Glyphosate\***

- 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 and folate
- Disrupts sulfate synthesis and sulfate transport

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

## **Glyphosate: The Central Mechanisms\***

- Glyphosate acts as an antibiotic to disrupt gut bacteria, leading to overgrowth of pathogens
- Disruption of liver CYP enzymes leads to impaired bile flow and low vitamin D
  - This disrupts sulfate synthesis and transport
  - Also impairs detoxification of other toxic chemicals
- Damage to red blood cells leads to anemia and toxicity due to free iron
  - Hypoxia ensues → low grade encephalopathy
- Leaky gut and leaky brain barrier lead to neuronal exposure to dangerous metals and neurotoxins

\* A Samsel and S Seneff, *Entropy* **2013**, 15(4), 1416-1463

**Glyphosate, Glutamate,  
Manganese and Autism**



## Glyphosate Depletes Iron, Manganese and Zinc in Plants\*

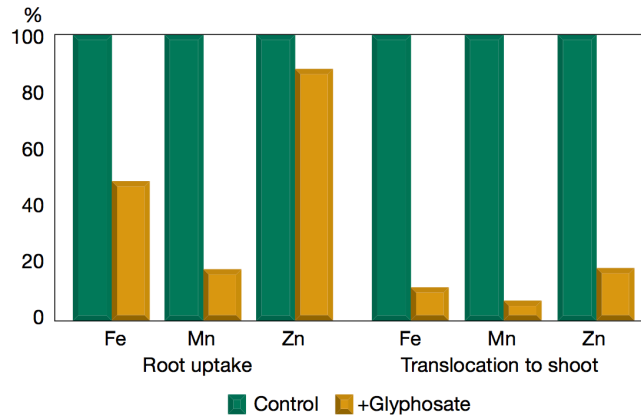
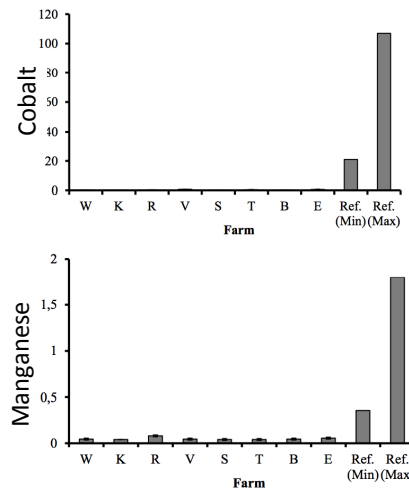


Figure 1. Effect of glyphosate\* on nutrient uptake and translocation by "non-target" plants, Eker, et al. 2006. (\* 2.5% of recommended herbicidal rate of glyphosate.)

\*D Huber, **What About Glyphosate-Induced Manganese Deficiency?** Fluid Journal 2007: 20-22.

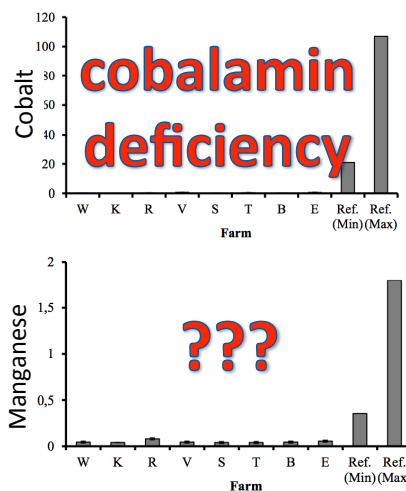
## Severe Deficiency in Serum Manganese and Cobalt in Cows\*



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

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

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## Low Manganese in Teeth Linked to Autism\*

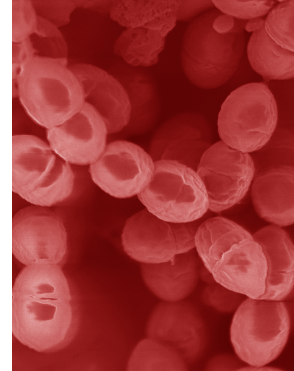
- Studied lead, mercury and manganese levels in tooth enamel of shed primary teeth in 84 children
- Manganese accumulated after birth was down by 60% in autistic children
- *No other result was statistically significant*



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

## Lactobacillus Depends on Manganese!\*

- Many lactic acid bacteria contain very high intracellular manganese levels
  - Scavenges toxic oxygen species, particularly superoxide
- Manganese deprivation suppresses growth

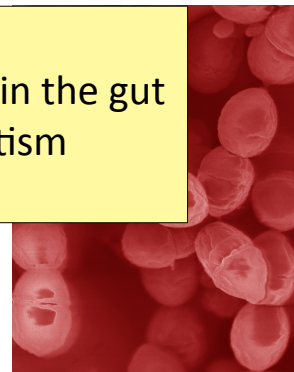


\* FS Archibald and M-N Duong. Journal of Bacteriology Apr 1084, 1-8.

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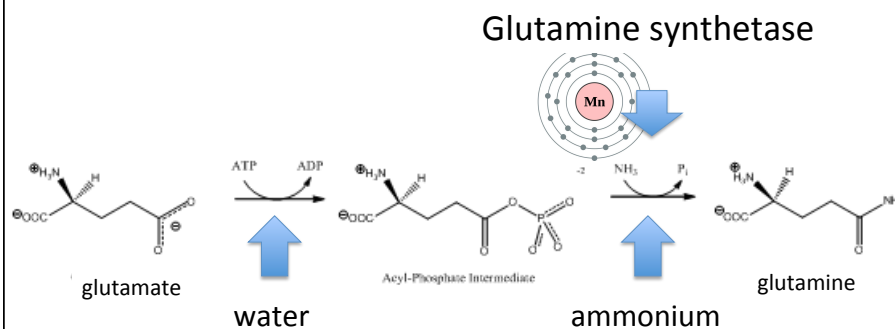
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Lactobacillus levels are low in the gut in association with autism



\* FS Archibald and M-N Duong. Journal of Bacteriology Apr 1084, 1-8.

## Glutamine Synthesis Depends on Manganese!



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

## Glyphosate and Glutamate<sup>\*</sup>,<sup>\*\*</sup>

- Acute exposure activates NMDA receptors and voltage-dependent calcium channels
  - Oxidative stress and neural cell death
  - Increased glutamate release into the synaptic cleft → *excessive extracellular glutamate levels*
  - Decreased glutathione content
  - Increased peroxidation of lipids (fats)



<sup>\*</sup><http://www.greenmedinfo.com/blog/roundup-weedkiller-brain-damaging-neurotoxin>

<sup>\*\*</sup>D Cattani et al., Toxicology 2014; 320: 34-45.

NMDA = N-methyl D-aspartate

## “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
<b>Glutamate</b>	<b>20.9±4.5</b>	<b>27.9±7.4</b>	<b>&lt;0.002*</b>
<b>Glutamine</b>	<b>513.1±48.5</b>	<b>445.8±50.6</b>	<b>&lt;0.0004**</b>
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

## Journal of Personal Science: One Child’s Autism Eliminated by Removal of Glutamate From Her Diet\* By Katherine Reid

First Round:

- Kale, cucumber, cilantro, nuts, seeds, fruits
- Magnesium B-complex, vitamin D3, omega 3 fats (EPA, DHA)
- Probiotics
- Gluten free and casein free (no wheat, no milk)

*Child improved significantly but still had autistic behaviors*

Second Round:

- ADD: ELIMINATE FREE GLUTAMATE

*Child lost the "autism" label!*

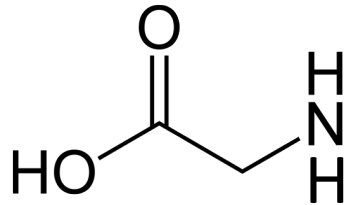
\*[blog.sethroberts.net/2013/05/17/journal-of-personal-science-one-childs-autism-eliminated-by-removal-of-glutamate-from-her-diet](http://blog.sethroberts.net/2013/05/17/journal-of-personal-science-one-childs-autism-eliminated-by-removal-of-glutamate-from-her-diet)

## **Glyphosate as a Glycine Analogue**

### **A Bit of Basic Biology**

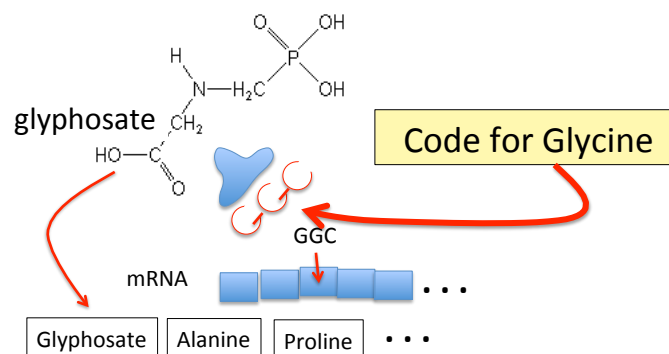
- Proteins are the “work horses” of the body
  - Enzymes, ion channels, pumps, receptors, etc.
- Proteins are “beads on a string” synthesized from about 20 building blocks called “amino acids”
- The DNA code is how genetic information gets translated into proteins
  - G,C,A and T stand for four nucleotides and a triple-code specifies a particular amino acid (64 total)
- Glycine is the smallest and simplest amino acid
  - GGT, GGC, GGA, GGG all code for glycine

## Glyphosate is a non-coding amino acid analogue of glycine



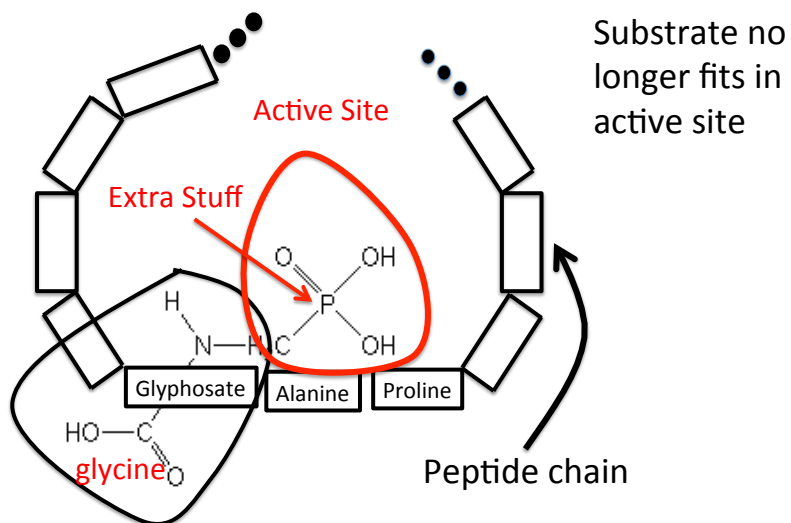
**Glycine**

## What If Glyphosate Could Insert Itself Into Protein Synthesis???



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

## Extra Piece Sticks Out at Active Site



## Some Predicted Consequences\*

- Neural tube defects
- Autism
- Impaired collagen → osteoarthritis
- Steatohepatitis (fatty liver disease)
- Obesity and adrenal insufficiency
- Hypothyroidism
- Impaired iron homeostasis and kidney failure
- Insulin resistance and diabetes
- Cancer

\*A Samsel and S Seneff, Journal of Biological Physics and Chemistry 2016;16:9-46.



## An Analogy: ALS in Guam

- An epidemic in ALS in Guam was traced to a natural toxin found in cycads
- BMAA is a non-coding amino acid that gets inserted by mistake in place of serine
- Defective versions of a glutamate transporter have been linked to ALS\*
- The transporter has an essential serine-rich region in its sequence\*\*



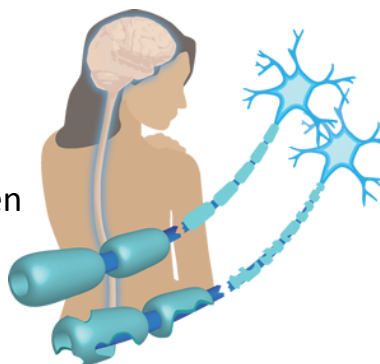
BMAA = beta-Methylamino-L-alanine

\*Antioxidants & Redox Signaling 2009;11: 1587-1602.

\*\*DJ Slotboom et al., PNAS 1999; 96(25): 14282-14287.

## Another Analogy: MS & Sugar Beets\*

- Sugar beets contain an analogue of proline called Aze
- Remarkable correlation between MS frequency and proximity to sugar beet agriculture
- Myelin basic protein contains a concentration of proline residues that are absolutely essential for its proper function



Aze = Azetidine-2-carboxylic acid

\*E. Rubenstein, J Neuropathol Exp Neurol 2008;67(11): 1035-1040.

## Into The Wild\*

- Chris McCandless died in the Alaskan wilderness in 1992
- A staple of McCandless' diet was seeds from a wild potato plant which contained L-canavanine, a non-coding amino acid analogue of L-arginine
- Author Jon Krakauer determined that McCandless was slowly poisoned by L-canavanine



\*J Krakauer et al., Wilderness & Environmental Medicine 2015; 26: 36-42.

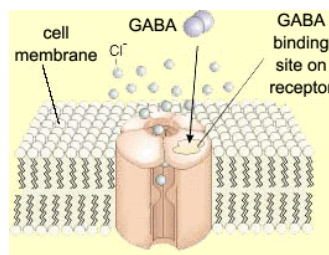
## Vulnerable Proteins: Resulting Pathologies

Conserved Glycines	Disease Profile
Hormone-sensitive Lipase	Obesity
Insulin Receptor	Diabetes
Amyloid Beta Plaque	Alzheimer's Disease
GABA Receptor	Autism
Lipocalin	Kidney Failure
ACTH	Adrenal Insufficiency
Cytochrome C Oxidase	Mitochondrial Disease
Alpha Synuclein	Parkinson's Disease
Myosin	Chronic Fatigue Syndrome

\*A Samsel and S Seneff, Journal of Biological Physics and Chemistry 2016;16:9-46.

## Impaired GABA<sup>1</sup> Receptor Activity and Autism

- Autism has been linked to a weakened response of the inhibitory GABA receptor to stimuli\*
- The GABA receptor has a conserved glycine at the entrance to the first membrane-spanning domain that is essential for its function\*\*



1. GABA = Gamma amino butyric acid

\*CD Robertson et al., Current Biology 2016;26: 80-85

\*\*BX Carlson et al., Mol Pharmacol. 2000;57(3):474-84

## "Glyphosate-Based Herbicides Produce Teratogenic Effects on Vertebrates by Impairing Retinoic Acid Signaling"\*

"GBH (Glyphosate-Based Herbicides) produced similar effects in chicken embryos, showing a gradual loss of rhombomere domains, reduction of the optic vesicles, and *microcephaly*. This suggests that *glyphosate itself* was responsible for the phenotypes observed, rather than a surfactant or other component of the commercial formulation."

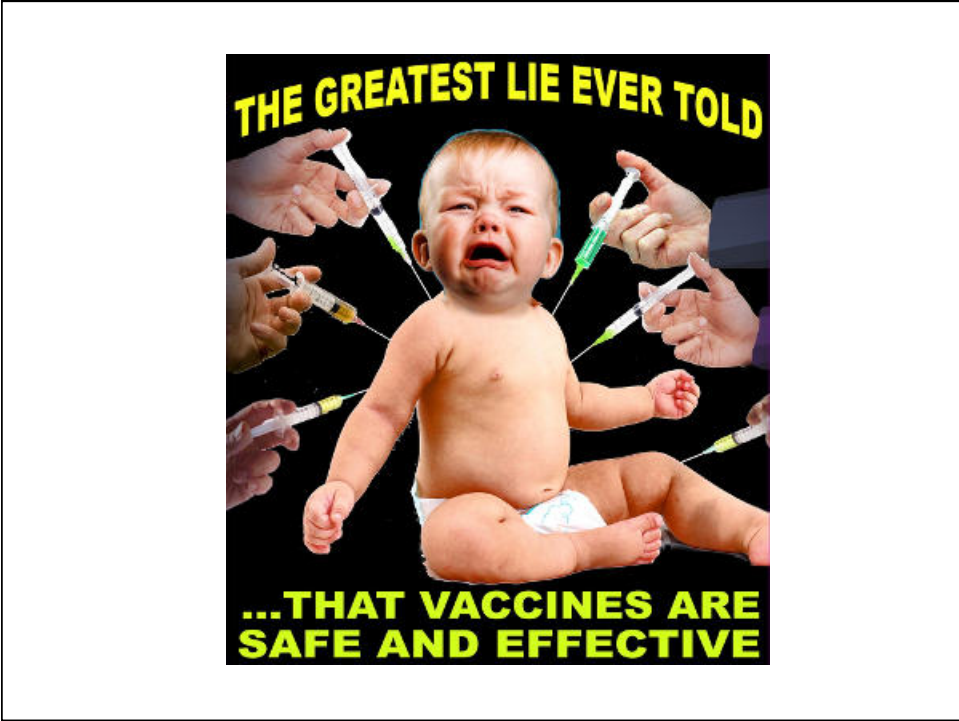
\*A Paganelli et al. Chem. Res. Toxicol 2010;23(10): 1586-1595.

## "Glyphosate-Based Herbicides Produce Teratogenic Effects on Vertebrates by Impairing Retinoic Acid Signaling"\*

Retinoic acid receptors contain two highly conserved glycines that are essential for their proper function for the phenotypes observed, rather than a surfactant or other component of the commercial formulation."

\*A Paganelli et al. Chem. Res. Toxicol 2010;23(10): 1586-1595.

# Vaccines



**CDC Vaccine Schedule**  
1983 - 2014  
*Children Birth to 6 Years (recommended month)*

1983	2014
DTP (2)	Influenza (prenatal)
OPV (2)	Hep B (birth)
DTP (4)	Hep B (1)
OPV (4)	DTaP (2)
DTP (6)	Hib (2)
MMR (15)	IPV (2)
DTP (18)	PCV (2)
OPV (18)	Rotavirus (2)
DTP (48)	DTaP (4)
OPV (48)	Hib (4)
	IPV (4)
<b>Total: 10</b>	PCV (4)
	Rotavirus (4)
	Hep B (6)
	DTaP (6)
	Hib (6)
	IPV (6)
	PCV (6)
	Influenza (6)
	Rotavirus (6)
	Hib (12)
	MMRV (12)
	Varicella (12)
	PCV (12)
	Hep A (12)
	DTaP (15)
	Hep A (18)
	Influenza (18)
	PPSV (24 - if high risk)
	MCV (24 - if high risk)
	Influenza (30)
	Influenza (42)
	MMR (48)
	DTaP (48)
	Varicella (48)
	IPV (48)
	Influenza (54)
	Influenza (66)
<a href="http://DrMomma.org">DrMomma.org</a>	<b>TOTAL: 36-38</b>

## Recommended Vaccine Schedule by CDC\*

Vaccine	Birth	1 mo	2 mos	4 mos	6 mos	9 mos	12 mos	15 mos	18 mos	19-23 mos	2-3 yrs	4-6 yrs	7-10 yrs	11-12 yrs	13-15 yrs	16-18 yrs
Hepatitis B <sup>1</sup> (HepB)	1 <sup>st</sup> dose	2 <sup>nd</sup> dose														
Rotavirus <sup>2</sup> (RV) RV1 (2-dose series) <sup>3,4,5,6</sup> (See footnote 2)			1 <sup>st</sup> dose	2 <sup>nd</sup> dose	See footnote 2											
Diphtheria, tetanus, & acellular pertussis <sup>7</sup> (DTaP; <7 yrs)			1 <sup>st</sup> dose	2 <sup>nd</sup> dose	3 <sup>rd</sup> dose				4 <sup>th</sup> dose			5 <sup>th</sup> dose				
Tetanus, diphtheria, & acellular pertussis <sup>7</sup> (Tdap; ≥7 yrs)													(Tdap)			
Haemophilus influenzae type b <sup>8</sup> (Hib)			1 <sup>st</sup> dose	2 <sup>nd</sup> dose	See footnote 5			3 <sup>rd</sup> or 4 <sup>th</sup> dose	See footnote 5							
Pneumococcal conjugate <sup>9</sup> (PCV13)			1 <sup>st</sup> dose	2 <sup>nd</sup> dose	3 <sup>rd</sup> dose			4 <sup>th</sup> dose								
Pneumococcal polysaccharide <sup>9</sup> (PPSV23)																
Inactivated poliovirus <sup>10</sup> (IPV) (<18 yrs)			1 <sup>st</sup> dose	2 <sup>nd</sup> dose			3 <sup>rd</sup> dose					4 <sup>th</sup> dose				
Influenza <sup>11</sup> (IV; LAIV) 2 doses (<18 yrs)										Annual vaccination (IV only)			Annual vaccination (IV or LAIV)			
Measles, mumps, rubella <sup>12</sup> (MMR)							1 <sup>st</sup> dose					2 <sup>nd</sup> dose				
Varicella <sup>13</sup> (VAR)							1 <sup>st</sup> dose					2 <sup>nd</sup> dose				
Hepatitis A <sup>14</sup> (HepA)									2-dose series, See footnote 11							
Human papillomavirus <sup>15</sup> (HPV2; females only; HPV4; males and females)															3-dose series	
Meningococcal <sup>16</sup> (Hib-Men-CY ≥ 6 weeks; MenACWY-D ≥ 9 mos; MenACWY-CRM ≥ 2 mos)										See footnote 13					1 <sup>st</sup> dose	booster

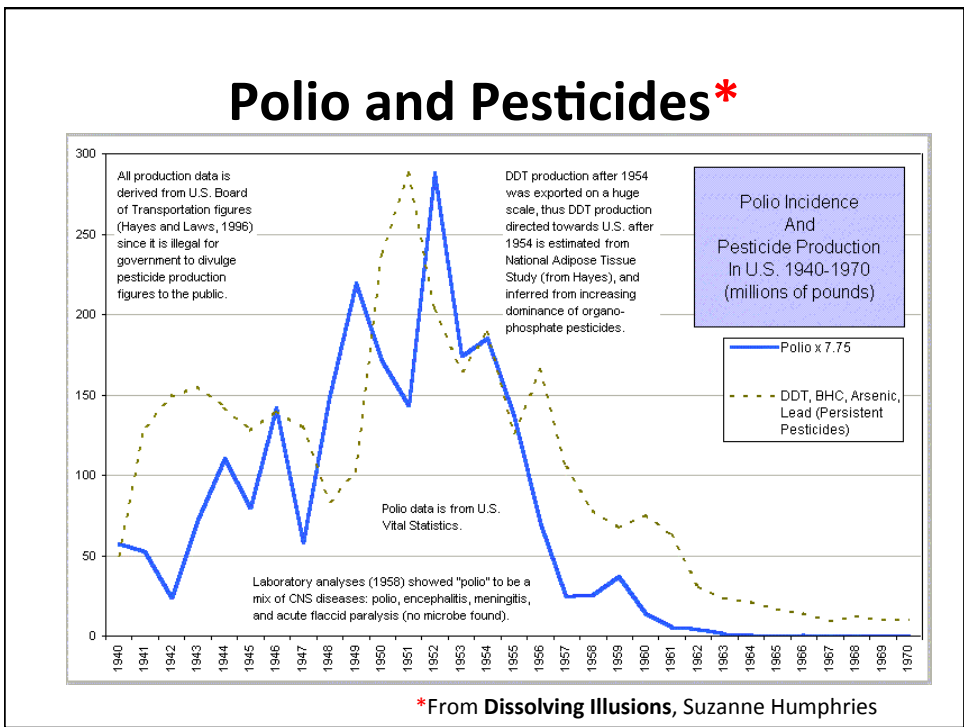
\* <http://www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html>

“How is disinterested vaccine safety governance even remotely possible when HHS employees stand as heroes at the head of the parade when a new vaccine is invented within its walls, while agency leaders are leading the cheering section, approving the new product’s launch, making the market for the product with its policy recommendations, and then turning around to cash multimillion-dollar checks?”

Mark Blaxill, A LICENSE TO KILL?

Chapter 19 in **VACCINE EPIDEMIC**, Louise Kuo Habakus, MA and Mary Holland, JD, Editors

Dr. Suzanne Humphries  
Dissolving Illusions



## Vaccine Induced Immune Overload\*

Mercury, aluminum, formaldehyde, MSG, neomycin, gentamycin, streptomycin, polymyxin B, polyethylene glycol, squalene, killed and/or live viruses, viral contaminants, etc.

→ Type 1 and type 2 diabetes, NASH, autism, asthma, food allergies, thyroiditis, vasculitis and autoimmune rheumatic diseases like lupus, rheumatoid arthritis, psoriasis and metabolic syndrome.

\*Classen JB, J Mol Genet Med 2014, S1:025

## Autoimmune Disease and Molecular Mimicry\*

- A peptide sequence in a foreign protein resembles a sequence in a human protein
- The immune system develops antibodies to the foreign protein and then these act as *autoantibodies* and attack the human protein that looks similar
  - This is how you get *autoimmune disease*
- The foreign protein could be from a virus in a vaccine or from a live infection or it could be from a food source like wheat gluten

\*MF Cusick et al., Clin Rev Allergy Immunol. 2012; 42(1): 102–111.

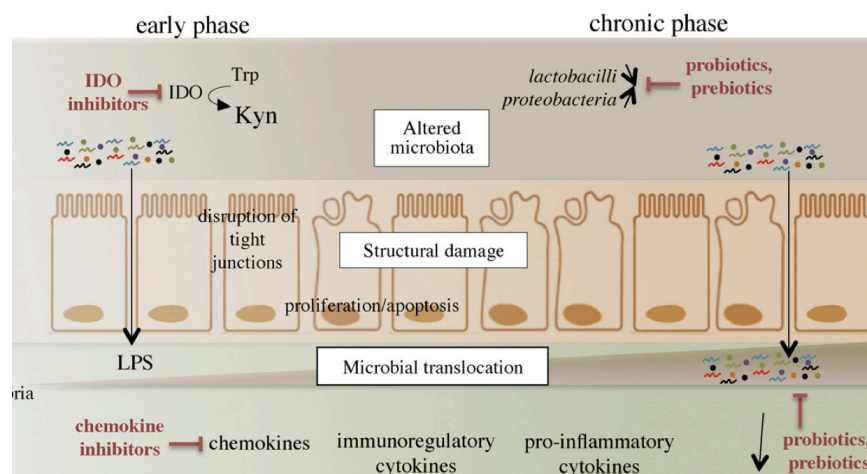


Why do we have an epidemic in autoimmune disease in America today?

## Hypothesis

- Cumulative glyphosate exposure sets up a weakened immune system, a leaky gut barrier and a leaky brain barrier
- Vaccines introduce foreign proteins that may contain glyphosate as a contaminant
- Child develops overactive antibody response to foreign protein contaminated with glyphosate and, through molecular mimicry, this leads to autoimmune disease

## A Model from Gut Dysbiosis to Autoimmunity\*



\*Figure 1, R. Ponte et al. EBioMedicine 1016;4:40-49.

## Aluminum Adjuvant in Vaccines\*

- DTaP (diphtheria, tetanus, and pertussis): **170–625 mcg**, depending on manufacturer
- Hepatitis A: **250 mcg**
- Hepatitis B: **250 mcg**
- Hib (for meningitis; PedVaxHib brand only): **225 mcg**
- HPV: **225 mcg**
- Pediarix (DTaP–hepatitis B–polio combination): **850 mcg**
- Pentacel (DTaP–Hib–polio combination): **330 mcg**
- Pneumococcus: **125 mcg**

\*[vactruth.com/2014/01/28/toxic-levels-of-aluminum/](http://vactruth.com/2014/01/28/toxic-levels-of-aluminum/)

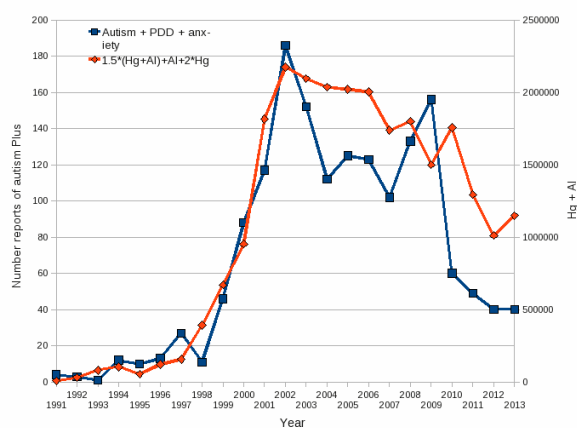
## "Autoimmune (autoinflammatory) syndrome induced by adjuvants" (ASIA)\*

- Alum-containing vaccines become insidiously unsafe in certain individuals
  - Increased risk to develop autoimmune diseases
- Chronic fatigue, muscle pain, joint pain, brain fog
- Alum nanoparticles adsorb vaccine antigens on their surface -> resistance to proteolysis
- Defects in autophagy → biopersistence of alum particles
- Trojan horse effect: immune cells carry Al into brain
- Leaky brain barrier → Alum accumulates in brain

\*RK Gherardi et al., Frontiers in Neurology February 2015; 6:4.

## Aluminum & Mercury Autism & PDD & Anxiety

R = 0.9024, p <= 1.115e-07



VAERS  
database

Formula:  $Al + 1.5 \times (Al \text{ w/ Hg}) + 2.0 \times Hg$

## Methodological Issues and Evidence of Malfeasance in Research Purporting to Show Thimerosal in Vaccines Is Safe\*

- Over 165 studies have found Thimerosal to be harmful:
  - Death, allergic reactions, malformations, autoimmune reactions, developmental delay
  - Neurodevelopmental disorders, including tics, speech delay, language delay, attention deficit disorder, and autism
- Six studies used by the CDC to support Thimerosal's safety are flawed



\*B Hooker et al., BioMed Research International 2014, Article ID 247218

## 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.

## Symptoms of Adverse Reactions to MMR before and after 2002\*

### More Common Before 2002

Reaction	Count Before 2002	Count After 2002	p-value
joint pain	126	65	0.036

### More Common After 2002

Reaction	Count Before 2002	Count After 2002	p-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

## Symptoms of Adverse Reactions to MMR before and after 2002\*

### More Common Before 2002

Reaction	Count Before 2002	Count After 2002	p-value
Joint pain	126	65	0.036

### More Common After 2002

Reaction	Count Before 2002	Count After 2002	p-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
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

These are all characteristic symptoms of allergies to MSG

\*Data analyzed from the VAERS database

## **Elevated Blood Glutamate Levels in Autism\***

- Meta analysis
  - Twelve studies involving 880 participants and 446 incident cases
  - Highly significant result ( $P < 0.001$ ) for elevated blood glutamate in association with autism
- Glutamate levels in the blood and central nervous system are closely correlated
- Glutamic acid decarboxylase converts glutamate to GABA (an inhibitory neurotransmitter) and is decreased in autism
- High glutamate may play a role in seizures

\*Z Zheng et al., Plos ONE July 8, 2016 111(7): e0158688

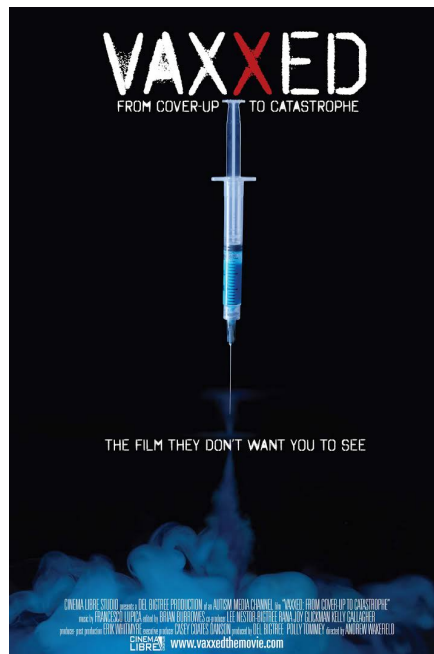
## **MMR, Glyphosate and Autoimmunity**

## MMR and Autism

- Dr. Andrew Wakefield found a connection in 1998 in a now retracted publication\*
  - He also identified a connection between *gut dysbiosis* and autism
- CDC claimed proof of no link in a 2004 paper\*\*
- Whistleblower, Dr. William Thompson, has come forward:
  - Data supported significant increased risk for autism in black males who received the vaccine early vs late
  - Demand for birth certificate hid this finding
  - In a secret meeting, documents were destroyed to hide the evidence

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

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



## Vaxxed, The Movie: Suppressed Study by the CDC\*

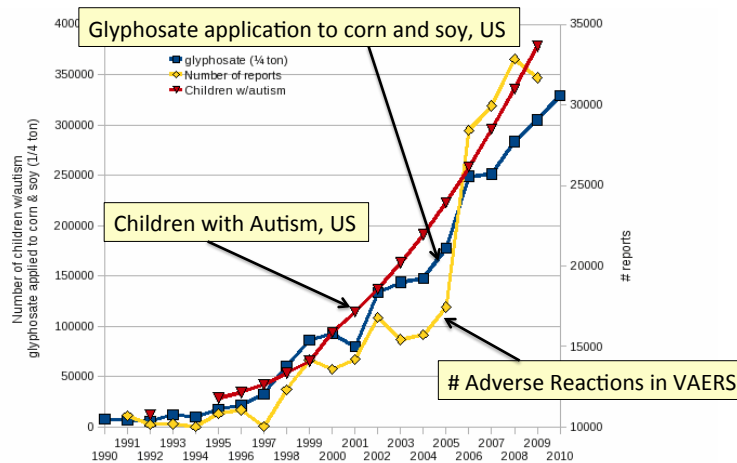
- 7-fold increase in autism for children previously perfectly healthy getting the MMR vaccine before 18 months versus those waiting until after 3 years old
- 2.6-fold increase in autism in black boys who similarly got the vaccine early versus late

Del Bigtree: “Our democracy is now sick and dying because media is not doing its job”\*\*

\* <http://www.vaxxed.com>

\*\* Del Bigtree, Producer, Speech published July 3, 2016  
<https://www.youtube.com/watch?v=qY1SkwuwOFws>

## Autism, Glyphosate, Vaccine Reactions\*



\* Collaboration with Dr. Nancy Swanson



## Glyphosate in Vaccines?

- For MMR, flu vaccine, and rabies vaccine, live virus is grown on gelatin derived from ligaments of pigs
  - Pigs are fed GMO Roundup-Ready corn and soy feed
- The main component of gelatin is collagen
- By far the most common amino acid in collagen is glycine: glyphosate substitution is likely!
- There is also a significant amount of glutamate
  - Excite NMDA receptors in the brain
- Glyphosate's known stimulation of NMDA receptors could cause neuronal burnout

## Precedent: Glyphosate in Drugs?\*

- Trasylol (aprotinin) is a protein derived from *bovine lung* used to reduce bleeding during open heart surgery
- Rare acute reaction to Trasylol involves precipitous drop in blood pressure, acute kidney failure, and sudden death
- Piglets injected with glyphosate salts had similar acute reaction with high mortality rate
- Cows fed GMO Roundup-Ready feed had highest residue levels of glyphosate in lungs

\*S Seneff et al., Agricultural Sciences 2015; 6:1472-1501.

## Measles Virus and Hemagglutinin\*

- The measles virus synthesizes the protein hemagglutinin
  - Antibodies to hemagglutinin are essential following MMR vaccination to induce immunity
- Hemagglutinin 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
  - Children with a rare genetic defect involving deletion of MBP can suffer from microcephaly\*\*
- Autoantibodies to MBP along with excessive levels of antibodies to measles hemagglutinin are linked to autism\*\*\*

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

\*\*AD Kline et al., Am J. Hum. Genet. 1993;52:895-906.

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

## Autism and Measles Hemagglutinin\*

- 125 autistic children and 92 control children
- 60% of the children with autism had high levels of antibodies to measles hemagglutinin 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 hemagglutinin 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.

## Gardasil (HPV Vaccine)

*“In 2006, after only three to five years of clinical trials, the FDA approved for marketing the most expensive vaccine in the history of the world, **Gardasil**, which has been proclaimed as preventative for cancer of the cervix, a claim that was never proved and which has, to date, not prevented a single case of cervical cancer ... mainly because cancer of the cervix takes 20 to 50 years to develop.”*

-- Gary G. Kohls, a retired medical doctor in Duluth.

### Are aluminum adjuvants plus Gardasil a uniquely damaging neuroinflammatory cocktail?\*

- Aluminum is routinely added to the "Placebo" which is completely unethical
- New kind of aluminum adjuvants in Gardasil have more "reactogenicity"
- Reformulated Gardasil-9 vaccine contains more than twice the amount of aluminum as its quadrivalent predecessor
- Vaccine-induced antibodies bind not only the target foreign antigen but also host proteins (due to molecular mimicry)




\*<http://info.cmsri.org/the-driven-researcher-blog/are-aluminum-adjuvants-plus-gardasil-a-uniquely-damaging-neuroinflammatory-cocktail>

### Are aluminum adjuvants plus Gardasil a uniquely damaging neuroinflammatory cocktail?\*

- Aluminum is routinely added to the "Placebo" which is completely unethical
- “the number of viral matches and their locations make the occurrence of side autoimmune cross-reactions in the human host following HPV16-based vaccination almost unavoidable.”\*\*
- Vaccine-induced antibodies bind not only the target foreign antigen but also host proteins (due to molecular mimicry)

\*\* D Kanduc, J Exp Ther Oncol. 2009;8(1):65-76.

## Motor and sensory clinical findings in girls vaccinated against the human papillomavirus from Carmen de Bolivar, Colombia.

© 4 marzo, 2016  Pompilio  Colombia, Nuevo Orden Mundial, Vacunas  Carmen de Bolivar, Colombia, Crecimiento Económico, derechos humanos, enfermedad autoinmune, Gardasil, HPV, inmunizacion, Vacuna virus papiloma humano, vacunacion, VPH

**Original research**

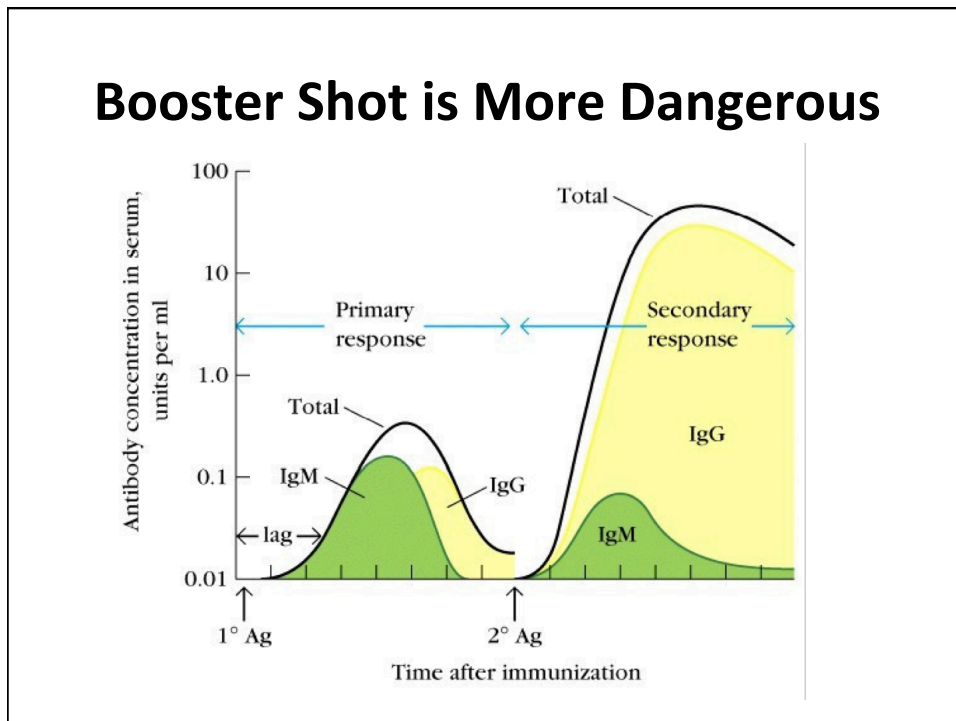
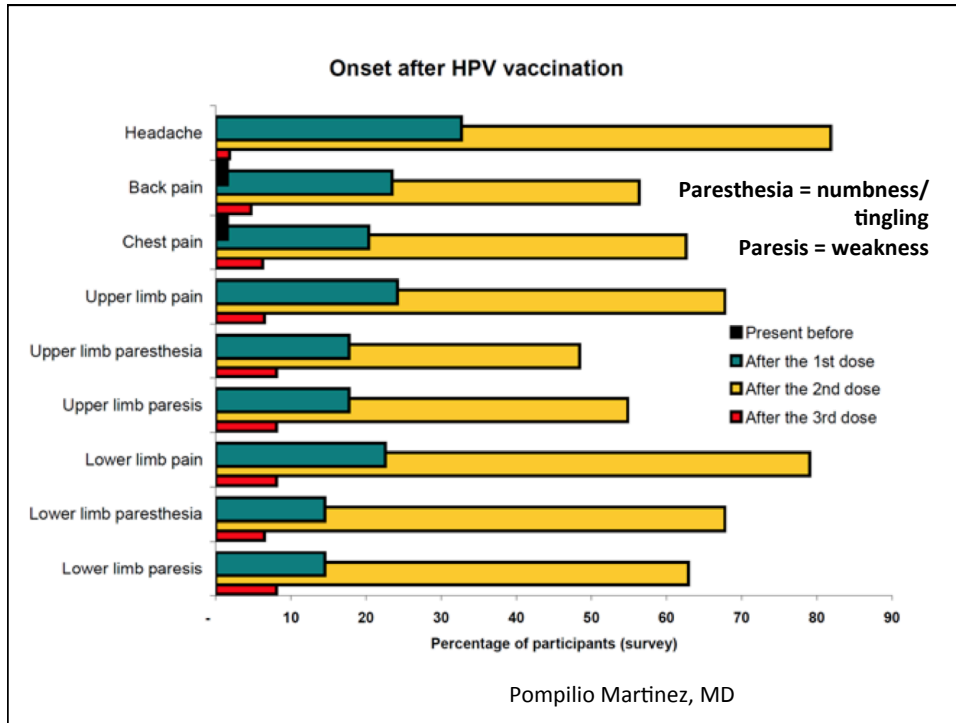
By Pompilio Martinez, MD  
Alumnus, School of Medicine, National University of Colombia  
Ex-investigator, Colombian National Institute of Health, Bogota,  
Colombia

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## HPG and Autoimmune Disease\*

- 61 girls in Colombia: severe reaction to HPV (Gardasil) vaccine
- Average age 14.5 years
- Aluminum-based adjuvant enhances immune response
- Autoimmune hypersensitivity type II reaction
- High serum auto-antibody titers against nerve tissue
- Molecular mimicry at play

\*Pompilio Martinez, MD



## POTS and Gardasil\*

- Gardasil contains a yeast enzyme that breaks down thiamine (thiaminase)
- Transketolase test was strongly positive for thiamine deficiency in three children suffering from post-Gardasil POTS (*Postural Orthostatic Tachycardia Syndrome*)
- Thiamine deficiency severely affects the limbic system and brainstem → POTS

\*Dr. Derrick Lonsdale, <http://sanevax.org/gardasil-vitamin-deficiency/>

## POTS and Gardasil\*

- Gardasil contains a yeast enzyme that breaks
- Thiamine synthase contains a double-glycine repeat at the very end of the protein\*\*
- Thiamine deficiency severely affects the limbic system and brainstem → POTS

\*\*A Zuin et al. Cells 2014; 3: 690-701.

\*Dr. Derrick Lonsdale, <http://sanevax.org/gardasil-vitamin-deficiency/>

## **New Paper on Gardasil and Mice\***

- Experiment on mice injected with Gardasil vaccine
- Mice exhibit behaviors indicative of depression
- Anti-HPV antibodies were found in the blood
  - Cross-reactivity induced antibodies targeting mouse brain protein ( $p < 0.002$ ) and phospholipid extracts ( $p < 0.001$ )
  - Microglial activation in the hippocampus
- Aluminum nanoparticles contained in the vaccine likely contribute
  - They can cross the blood-brain barrier via macrophage-dependent Trojan horse mechanism.

Conclude:

- Gardasil via its Al adjuvant and HPV antigens can trigger neuro-inflammation and autoimmune reactions leading to depression

\*R. Inbar et al., Immunol Res. 2016. Published online 16 July, 2016.

**How You can Protect Yourself  
and Your Family**



## Some Important Nutrients

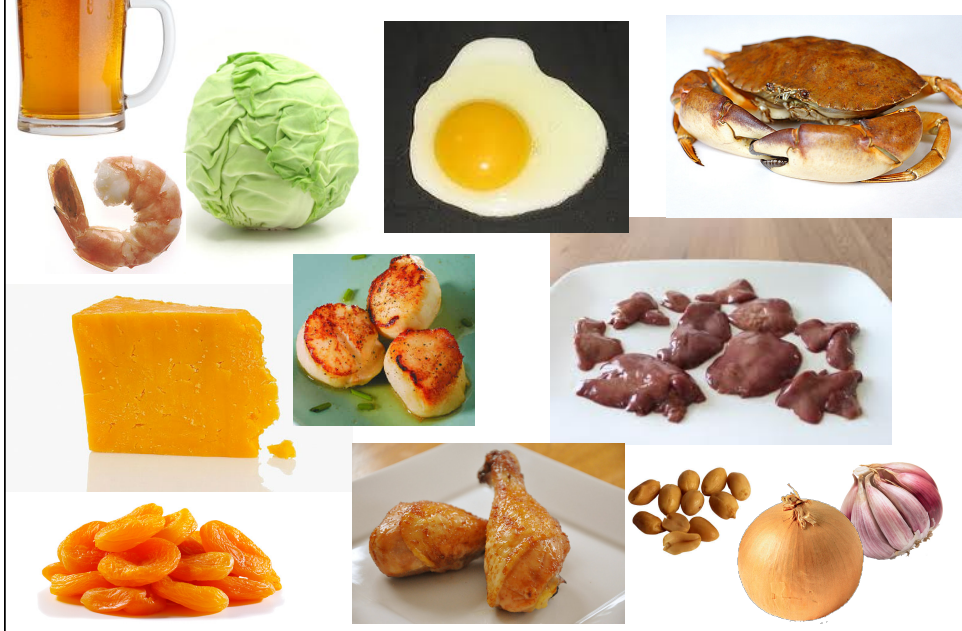
- Curcumin
- Garlic
- Vitamin C
- Probiotics
- Methyl tetrahydrofolate
- Cobalamin
- Glutathione
- Taurine
- Epsom salt baths



## Eat Foods Containing Manganese

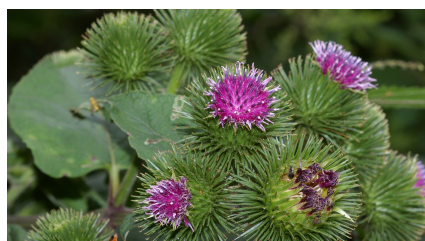


## Eat Foods Containing Sulfur



## 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

## Treating Glyphosate Poisoning in Animals (e.g., cows) \*

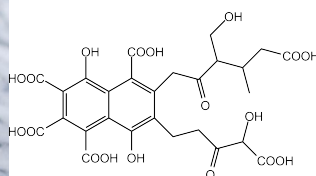


Sauerkraut Juice

Activated charcoal, bentonite clay, humic and fulvic acids, and sauerkraut juice have been shown to be effective in reducing urinary levels of glyphosate and improving animal health



Bentonite Clay

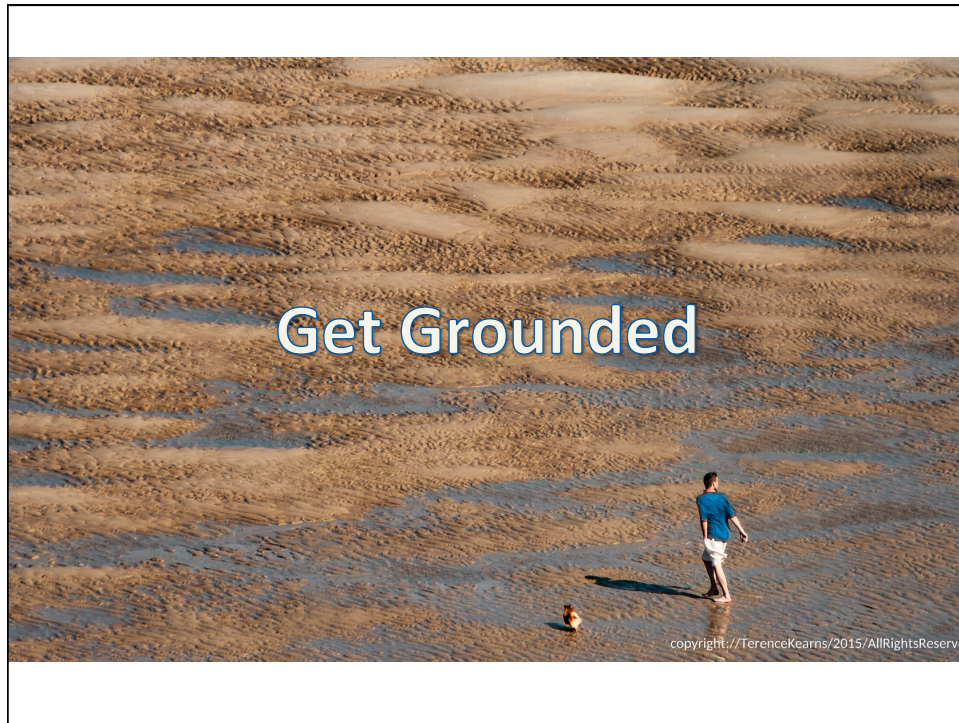


Fulvic Acid



Activated Charcoal

\*H Gerlach et al., J Environ Anal Toxicol 2014, 5:2

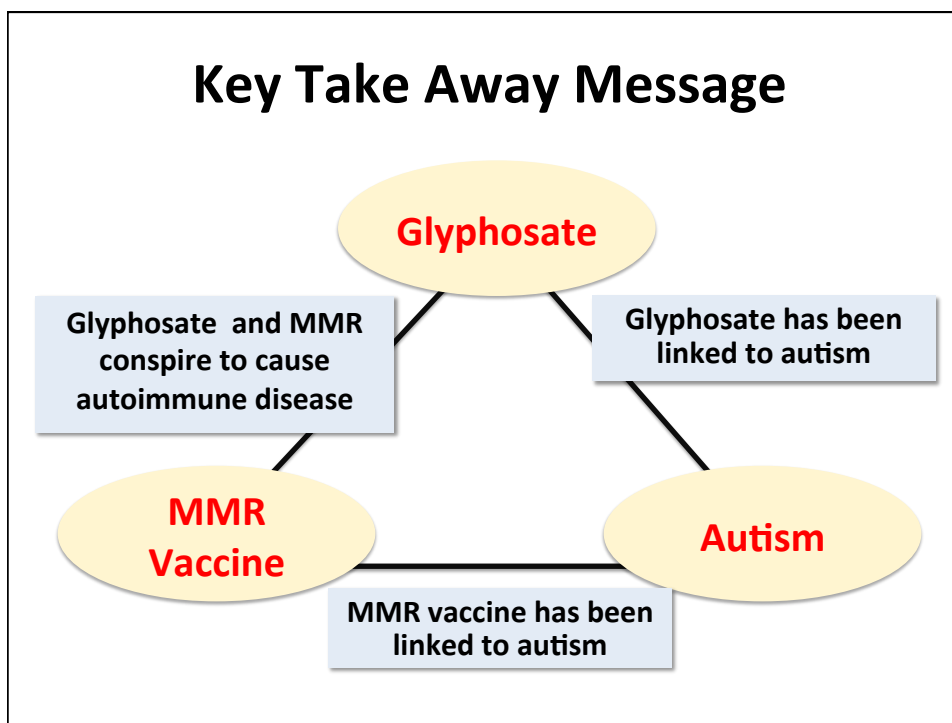


## Say 'No' to Vaccines!

- Refuse all vaccines that aren't mandated
- Delay and space out the mandated vaccines
  - Especially, postpone Hep-B at birth and delay MMR from 12 months to 3 years



## Key Take Away Message



## Summary

- Children (and adults!) today in the US suffer from many autoimmune diseases
  - I believe this is due mainly to synergistic toxicity between glyphosate and vaccines
- Glyphosate can substitute for glycine by mistake during protein synthesis, causing many diseases
- Molecular mimicry: If glyphosate infiltrates measles virus protein, it could explain an intense autoimmune reaction in the brain leading to autism
- MMR and Gardasil are particularly problematic vaccines
- Organic diet rich in manganese and sulfur, grounding and sunlight exposure can help you stay healthy