VACCINES, AUTISM & ADHD

If a username / password is requested, use "private / papers"

Last update: February 15, 2023

1. ADAMS 2009

The Severity of Autism Is Associated with Toxic Metal Body Burden and Red Blood Cell Glutathione Levels

 The severity of autism is related to toxic metals body burden and glutathione levels

2. ADAMS 2013

Toxicological status of children with autism vs. neurotypical children and the association with autism severity

 Children with autism have more toxic metals, levels strongly associated with severity. The problem appears not to be high exposure but decreased excretion

3. **BECKER 2010**

Similarities in features of autism and asthma and a possible link to acetaminophen use

- o Fever, inflammation, genetic, cytokines, immune system, brain
- Tylenol (often used after vaccination) may increase risk of both asthma & autism.

4. **BERNARD 2000**

Autism: A unique type of mercury poisoning

- ARC Research
- See genetic susceptibility, page 38.

5. **BERNARD 2001**

Autism: A novel form of mercury poisoning

Thimerosal. Mercury exceeds safety levels.

6. **BERNARD 2002**

The role of mercury in the pathogenesis of autism

- Autism, thimerosal, vaccines, mercury
- Mercury in vaccines is a factor in the pathogenesis of autism in people genetically susceptible

7. **BERNARD 2015**

Primate Model of Effects of Vaccination on Autism-like Behaviors and Neuropathology. A Review of the Data from Phases I and II

- Review of Gadad & Curtis papers
- Phase I papers show that autism is related to vaccines
- Phase II papers do not. Author finds publication bias and conflicts of interest,
 e.g., Offit is involved in Phase II.
- Bernard found 6 problems with the GADAD 2015 study and reanalyzed several figures of that study

8. **BJORKLUND 2017**

Histone Deacetylase Inhibitors, Thimerosal, and Autism Spectrum Disorder

- Comment on DOREA 2017
- o Mercury increases HCAC4 protein expression and should be removed.

9. **BLAYLOCK 2007**

A Possible Central Mechanism in Autism Spectrum Disorders: Interaction of Activated Microglia, Excitotoxicity, Reactive Oxygen and Nitrogen Species, Lipid Peroxidation Products and the Role of Elevated Androgen Levels in Autism Spectrum Disorders

 He discusses the combination of vaccines, allergies, microglia priming, aluminum, mercury, etc., and their relation to brain immune stimulation and autism.

10. **BLAYLOCK 2008**

The truth behind the vaccine coverup (Simpsonwood Conference)

 At a secret meeting of scientists and Big Pharma, a dose-response link between Thimerosal and autism was confirmed, but erased before later publication. Blaylock discusses "outrageous statements" etc.

11. **BOLTE 1998**

Autism and Clostridium tetani

- Subacute chronic tetanus infection of GI tract; reduced toxicity. Fragments go to CNS via vagus nerve.
- Hypothesis: Autism may be a chronic tetanus infection
- Published in Medical Hypotheses. Strategies to Test

12. BRADSTREET 2010

Biomarker-guided interventions of clinically relevant conditions associated with autism spectrum disorders and ADHD

 A biomedical approach, including effects of vaccine-related immunodeficiencies which may be helped by IVIG therapy.

13. **BRUMBACK 2008**

A never ending saga: the mercury & autism articles by Ip et al

Complaint about careless research. SEE DeSOTO 2007 and IP 2004

14. CHHAWCHHARIA 2014

Commentary – Controversies surrounding mercury in vaccines: Autism denial as impediment to universal immunization

- This is an article about the whistleblower, Thompson, who said the CDC hid the risk of autism among Black children.
- Discussion of mercury levels far above EPA limit of 0.1 ug/kg in the Third World vaccination program.
- Says autism denial hinders vaccine use
- Says single doses without mercury are cheap in India and to be recommended.

15. **COHLY 2005**

Immunological findings in autism

- This is a review of the connection of autism and thimerosal and MMR
- Immune regulation, cytokines, autoimmunity, mercury, measles, genes, CD4 cells, T-cells, Th1/Th1 immunity, thimerosal, MMR, measles.
- o Brain specific antibodies. Inflammatory process. Environmental factors

16. **DEISHER 2014**

Impact of environmental factors on the prevalence of autistic disorder after 1979

 Increases in autism correspond to introduction or increase of fetqal cells in vaccines, NOT changes in diagnosis

17. **DEISHER 2015**

Epidemiologic & molecular relationship between vaccine manufacture & autism spectrum disorder prevalence

There is a causal relationship between vaccines using fetal cells & autism

18. **DEISHER 2019**

Open letter from Dr. Theresa Deisher to legislators regarding fetal cell DNA in vaccines

- Fetal cell contaminants in vaccines are not trivial
- o There is a relationship between immune response, autoimmunity, & autism

19. **DeLONG 2011**

A positive association found between autism prevalence & childhood vaccination uptake across the US population

 In every state in the US, the higher the % getting vaccines, the higher the % of autism

20. **DeSOTO 2007**

Blood levels of mercury are related to diagnosis of autism; a reanalysis of an important data set

- Reanalyzing IP (2004), an error was found
- o A significant relation DOES exist between blood mercury & autism diagnosis
- See IP (2004) and BRUMBACK (2008)
- Some children are diagnosed as autistic before their mercury poisoning is recognized

21. De STEFANO 2004

Age at First Measles-Mumps-Rubella Vaccination in Children With Autism and School-Matched Control Subjects: A Population-Based Study in Metropolitan Atlanta

- Children who were vaccinated at less than 36 months old more often had autism, but the author thinks the vaccine was required for early intervention in pre-existing autism. The dates of diagnosis were not recorded
- NOTE: This is not reasonable since MMR is normally given at 12 months anyhow for the first shot, and then 3 4 years for the second. So the FIRST shot is not "early" when under 36 months
 Funded by the CDC

22. <u>DeSTEFANO 2019</u> (Offit)

Principal controversies in vaccine safety in the United States

- Lists all the concerns against vaccines and says none of them are valid (except GBS, a little)
- He admits there is a "small increased risk" of GBS after the flu shot, but says it is less than the risk from the flu
- He blames the unvaccinated for causing outbreaks (no source listed)
- He blames Wakefield (1998) for first suggesting MMR may cause autism
- O NOTE: Wakefield's paper was a case series and made no such claim
- DeStefano claims autism is genetic and begins in utero. He lists a number of studies he claims show no association between MMR and autism. He says the FDA found that mercury was higher than EPA safety guidelines, but, he says, ethylmercury is "much safer" so it's okay
- He describes studies comparing smaller & larger amounts of mercury
- NOTE: This is like comparing 1 to 2 packs a day of cigarettes to see if tobacco causes cancer. At no time are vaccinated children compared to totally UNVACCINATED children
- He says "no mechanisms have been demonstrated to explain how vaccines could account for the development of autoimmune disease."
- O NOTE: Is that proof?
- He blames Wakefield for an increase in "re-emergence of measles disease and deaths" (see following chart)
 in the UK From 1994 to 2016 there were never more than 3 deaths per year related to measles in the whole country. See link
- o yes, there were more cases, but note that didn't happen until 2002
- The numbers went down again after 2010. And there were almost NO DEATHS in any of these years before or after Wakefield's paper

- Going back to 1940 in the UK ... there were 409,521 cases and 0857 deaths
- That is 0.2% mortality which is higher than now, but 99.8% got permanent immunity with no shots. And when 99.8% get immunity, you will also get herd immunity without a vaccine
- Thus, looking at the numbers since 1992 except for 1 unvaccinated immunodeficient child, one boy on immunosuppressive drugs, one man who got pneumonia, and a baby with a secondary infection, all other deaths since 1992 were in older people who had had measles in the 1980s or earlier ... how were they even called "measles deaths?

23. **DeWITT 2011**

Response to "Theoretical aspects of autism: Causes – a review" by Ratajczak, HV (*Journal of Immunotoxicology*)

- DeWitt complains about the description of risk factors in RATAJCZAK 2011.
 Blames Wakefield
- DeWitt works for the Dept of Pharmacology in Brody School of Medicine

24. **DIAS-TOSTA 2004**

Neurological morbidity in vaccine-associated paralytic poliomyelitis in Brazil from 1989 up to 1995

- Out of 4,081 cases of acute flaccid paralysis, 62 were from polio, 30 from the polio vaccine
- NOTE: What about the other 4,049 people?

25. **DONZELLI 2017**

Influenza vaccination in the first trimester of pregnancy & risk of autism spectrum disorder

- Reply to ZERBO 2017b
- Says Zerbo used inappropriate stats but still got borderline significance for flushot & autism
- Vaccinating in the first trimester of pregnancy will lead to 4 additional cases of autism per 1,000 women,

26. EDELKIND-NOESGES 2020

Vaccine adjuvants and selected neurotoxins in ADHD and autism

 Masters paper which focuses on some of the less-recognized risk factors for ADHD/autism, how they interact, and how they relate to sulfate metabolism

27. **EWING 2009**

What is regressive autism & why does it occur? Is it the consequence of multi-systemic dysfunction affecting the elimination of heavy metals and the ability to regulate neural temperature?

- The author concludes that sensory dysfunction and systemic failure, manifested as autism, is the inevitable consequence arising from subtle DNA alteration and consequently from the overuse of vaccines.
- He also shows a connection with several other diseases, including Arthritis, Chronic Fatigue Syndrome, Diabetes, Crohn's, Pancreatitis, GBS, MS, Seizures, and Cerebral Palsy.

28. **GADAD 2015**

Administration of thimerosal-containing vaccines to infant rhesus macaques does not result in autism-like behavior or neuropathology

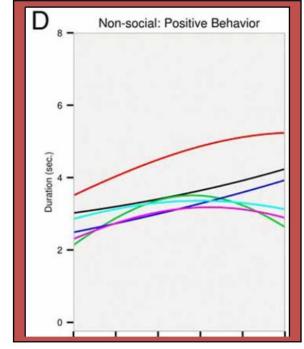
Animal study. Six small groups of monkeys were compared. The authors

see no significant difference

 NOTE: See the graph below (Figure 1D). The red line is above the other lines. The red line represents the group getting the vaccines. In ALL the Figure 1 graphs, the red line is visually different from the others, but for some reason this is ignored by the authors.



- OFFIT 2015
- BERNARD 2015
- HANDLEY 2017



29. **GALLAGHER 2008**

Hepatitis B triple series vaccine and developmental disability in US children aged 1-9 years

- Hep B shots contained mercury/thimerosal
- Boys who got the Hep B with thimerosal were NINE times more likely to have developmental delay and autism than the Unvaccinated boys
- NOTE: Does "unvaccinated" mean not getting Hep B or not getting ANY vaccines?

30. **GALLAGHER 2010**

Hepatitis B vaccination of male neonates and autism diagnosis, NHIS 1997-2002

- Boys vaccinated at birth had 300% greater odds of autism compared to boys never vaccinated or vaccinated after the first month of life
- Non-white boys had even more risk

31. **GEIER 2004a**

A comparative evaluation of the effects of MMR immunization and mercury doses from Thimerosal-containing childhood vaccines on the population prevalence of autism

- Epidemiological evidence shows a direct relationship
- Thimerosal should be removed from all vaccines, and additional research done to produce an MMR vaccine with better safety, too

32. **GEIER 2005a**

The potential importance of steroids in the treatment of autistic spectrum disorders and other disorders involving mercury toxicity

- Testosterone makes mercury toxicity worse
- Estrogen protects against it
- The level of testosterone correlates with autism severity
- Other conditions considered include asthma, heart disease, obesity, Alzheimer's and ALS
- Some treatments lower testosterone. This may point to therapies that target hormone pathways

33. **GEIER 2006b**

An evaluation of the effects of thimerosal on neurodevelopmental disorders reported following DTP and Hib vaccines in comparison to DTPH vaccine in the US.

- Getting the DTP + Hib instead of the combined DTPH vaccine, kids got 100 mcg more mercury
- Their odds of a VAERS report for autism, speech disorders, retardation, spasms and thinking abnormalities was much higher

34. **GEIER 2008a**

A comprehensive review of mercury provoked autism

 There is a combination of genetic susceptibility (a reduced ability to excrete mercury) and exposure to mercury.

35. **GEIER 2012**a

Hair toxic metal concentrations and autism spectrum disorder severity in young children

- Mercury levels in hair were associated with autism severity
- Although he mentions that children with autism have difficulty excreting mercury, here he compares kids who all have autism

36. **GEIER 2013**

A two-phase study evaluating the relationship between Thimerosalcontaining vaccine administration and the risk for an autism spectrum disorder diagnosis in the United States

- Those children who got vaccines with mercury were more likely to get a diagnosis of autism
- Ethyl mercury, Merthiolate

37. **GEIER 20015e**

A case-control study evaluating the relationship between thimerosal containing Haemophilus influenzae type B vaccine administration and the risk for a pervasive developmental disorder diagnosis in the United States

 Children with autism/PDD were at a significantly greater risk of having received a Hib vaccine with mercury in their first 15 months

38. **GEIER 2016**

Thimerosal-Preserved Hepatitis B Vaccine and Hyperkinetic Syndrome of Childhood

 Mercury exposure from Hep B vaccine in the first month of life increases risk of ADHD later

39. **GEIER 2016b**

A two-phase case-control study of autism risk among children born from the late 1990s through the early 200s in the United States

"The risk of autism ... significantly decreased with reductions in Hg exposure ... Thimerosal should be removed from all vaccines."

40. **GEIER 2017**

Increased risk for an atypical autism diagnosis following thimerosal containing vaccine exposure in the United States: A prospective longitudinal case-control study in the Vaccine Safety Datalink

 Children with autism were more likely to have received mercury-containing vaccines in their first 6 months

41. **GEIER 2017a**

Abnormal brain connectivity spectrum disorders following thimerosal admin: A prospective longitudinal case- control assessment of medical records in the Vaccine Safety Datalink

 Mercury exposure from thimerosal was significantly associated with autism, tics, and ADHD

42. **GEIER 2018b**

A cross-sectional study of the association between infant Hepatitis B vaccine exposure in boys and the risk of adverse effects as measured by receipt of special education services

- More special education was needed in 1990-2005 (Hep B with mercury) and less in 2004-2012 (Hep B without mercury)
- The cost of excess special ed = \$180 billion
- Geier says that mercury should be removed from all vaccines

43. **GEIER 2018c**

A cross-sectional study of the relationship between infant thimerosalcontaining Hepatitis B vaccine exposure and attention-deficit/hyperactivity disorder

 Three doses of Hep B vaccine with thimerosal significantly increased the risk of an ADHD diagnosis

44. **GERBER 2009** (Offit)

Vaccines and Autism: A Tale of Shifting Hypotheses

- He debunks 3 proposed ideas of how vaccines cause autism
- He claims the increase in autism diagnosis is a result of "broadened diagnostic criteria and increased awareness."
- Offit is on the MERCK advisory board, and explains why MMR, thimerosal, & multiple shots don't cause autism
 - MMR:
 - 1. He says it's all Wakefield's fault
 - THIMEROSAL:
 - 1. He says it's been in use more than 50 years.
 - 2. He says it was removed in 1999.
 - 3. NOTE: It was removed in 2001
 - 4. **NOTE:** He apparently forgot that old stocks remained in use, which is why a comparison could be made in studies.
 - TOO MANY VACCINES:
 - 1. He says that too many vaccines can't overwhelm the immune system ... because vaccines do not overwhelm the immune system (no proof offered).

45. **GOLOS 2015**

Thiomersal-containing vaccines - a review of the current state of knowledge

- Golos says there are no contraindications to the use of vaccines with thimerosal in babies, children and non-pregnant women
- They point out that while mercury use in vaccines is declining, autism is rising
- They also point out that it is more important to avoid the risk of contamination of opened multi-dose bottles of vaccines than to worry about the "unproven negative effects of thiomersal (sic)"
- NOTE: No conflicts of interest or funding are mentioned, but authors work for the Department of Sera and Vaccines Evaluation in the National Institute of Hygiene in Warsaw

46. **GOOD 2009**

Did acetaminophen provoke the autism epidemic?

- It is unethical to do a study giving Tylenol to kids who may be vulnerable (which is what we are routinely doing now), so Good suggests waiting until parents stop giving it and see if the autism level drops
- NOTE: This may be ethical but strikes me as stupid
- NOTE: As of my last checking, doctors are still recommending parents give Tylenol to their babies after vaccination. That is why I have included this study in the Vaccine group of studies

47. **HERON 2004**

Thimerosal Exposure in Infants and Developmental Disorders: A Prospective Cohort Study in the United Kingdom Does Not Support a Causal Association

- Autism, vaccines, thimerosal, mercury
- Heron, Golding, ALSPAC team
- Beginning: "There is an established link between exposure to mercury and impaired childhood cognitive development and early motor skills."
- Conclusion: We could find no convincing evidence that early exposure to thimerosal had any deleterious effect on neurologic or psychological outcome"
- o Conflict of Interest: Funded by the Wellcome Trust (pharm)

48. **HOLMES 2003**

Reduced levels of mercury in first baby haircuts of autistic children

- Besides an increase in mercury via vaccines, some children may not eliminate it well. The hair of children with autism had little mercury, so it is not being excreted.
- Funding: Autism Research Institute & Wallace Fdn

49. **HONDA 2005**

No effect of MMR withdrawal on the incidence of autism: A total population study

- MMR compared as a combination and separate vaccines
- They "excluded those diagnosed with childhood autism." Well, no wonder they didn't have any rise in cases!!
- By the time the MMR was officially discontinued, it had already declined to zero for years, and no boosters were given. THEN the measles vaccine was introduced separately
- NOTE: The Japanese schedule for vaccines is very different from the US schedule. They begin at 3 months. They do not give the Hep B at birth. The Rotavirus is voluntary, mumps is voluntary, flu shots were n ot given at that time. The autism rate rose, but is still much lower than in the US.

50. **HOOKER 2014** (Geier)

Review Article: Methodological Issues and Evidence of Malfeasance in Research Purporting to Show Thimerosal in Vaccines Is Safe

- o 165 studies found mercury in vaccines harmful
- The CDC says it is safe but their own study says otherwise
- All the authors are involved in vaccine litigation
- Hooker examines 6 CDC publications claiming safety
 - Madsen (2003) -- changed diagnosis from inpatient only to both in- and outpatient; so after removing Hg, 93% were treated as outpatients, and diagnosis appeared to increase. The diagnosis actually Decreased if comparing apples to apples
 - Stehr-Green (2003) claimed Calif increase due to including PDD (not included); Sweden counted only inpatients; Denmark, as above, changed policies which indicated a 20-fold increase at the time that Hg was removed
 - Hviid (2003) -- says no increase in autism w/ Hg but included 1 yr olds too young to be diagnosed by the end of the study, so may have been mis-classified as normal

- Andrews (2004) -- used a database known to have significant errors; found a decrease in neurodevelopmental delay with Hg ... did not consdier lag time and age of diagnosis; Statistically, had to be diagnosed before birth; used multiple independent variables; raw data was not released, so no single-variable analysis could be done. Also, the UK exposure to Hg less than half that of the US and began later
- Verstraeten (2003) -- they state no relationship, but include no data. But internal abstracts say differently. Verstraeten himself complained: "We should use sound scientific argumentation and not let our standards be dictated by our desire to disprove an unpleasant theory." Nice sentiment ... BUT ... they tried again, using children age 1-3 (too young) and excluded 50% of autism cases.
- Price (2010) -- design flaw = overmatching. Data from prenatal exposure was not reported.

51. **HOOKER 2014a**

Measles-mumps-rubella vaccination timing and autism among young African American boys: A reanalysis of CDC data

- Black children getting MMR before 36 months of age are more likely than whites to get autism
- o If they receive the vaccine before 24 months, they are even more likely.
- Hooker is a whistleblower at the CDC, keeping a copy of data that the CDC wanted destroyed, so that the study they published did not show this result.
- This study was retracted by the publisher with a "claim of concern" for "undeclared competing interest"
- NOTE: This appears peculiar to me since the paper includes the information that Hooker was involved in vaccine litigation. His funding and sources of information are listed more completely than usually seen in other studies. It appears obvious (to me) that pressure must have been applied to the publisher by unknown parties.

52. **HOOKER 2017**

Influenza vaccination in the first trimester of pregnancy and risk of autism spectrum disorder

- Letter to Editor: Re ZERBO 2017b
- Hooker says the Bonferroni adjustment was not appropriate
- Changing the first semester flu shot to "chance" should not have been done.
 Besides, that is the trimester most suspected to be problematic

53. **HORNIG 2008**

Lack of Association between Measles Virus Vaccine and Autism with Enteropathy: A Case-Control Study

- Claims to replicate Wakefield's MMR study;
- Results show no connection between MMR vaccine and GI disturbance or MMV and autism
- O See UHLMANN 2002, KRIGSMAN 2010

54. **HSIAO 2012**

Modeling an autism risk factor in mice leads to permanent immune dysregulation

- o Animal study. Prenatal infection exposure, immune system, mouse, mice
- Abnormal activation of the i8mmune system is involved in autism
- Irradiation decreased repetitive behavior and anxiety behavior
- o **NOTE:** Immune activated mothers as in vaccinated? Not specified.

55. **HUTTON 2016**

Does Rubella Cause Autism: A 2015 reappraisal?

- Yes, even in vaccinated women
- o 5% of pregnant women get Rubella, even if vaccinated. The vaccine wanes

56. **HVIID 2003**

Association Between Thimerosal-Containing Vaccine and Autism

- Hviid says there is no connection between mercury-containing vaccines and autism. See commentary @ RIMLAND 2003
- NOTE: The authors work for Statens Serum Institut, a vaccine developer with connections to the Bill & Melinda Gates Fdn

57. **HVIID 2019**

Measles, mumps, rubella vaccination and autism. A nationwide cohort study

- Denmark
- No individual medical charts or kids were reviewed
- O NOTE: Over 95% got MMR so who are they comparing to anyhow?
- Conflict of interest: ALL the authors work for the vaccine industry
- Funded by Novo Nordisk Fdn & Danish Ministry of Health
- Drs. Hviid & Hansen had grants from Novo Nordisk Fdn
- ALL of them work at Statens Serum Institute which develops vaccines. https://en.wikipedia.org/wiki/Statens Serum Institut
- o NOTES:
 - Shots in Denmark start later than in US & have no mercury
 - The first MMR dose was given at 15 months, #2 at 12 yrs (later at 4 yrs).
 - Only some got 2nd MMR before end of study
 - Many kids were too young for diagnosis by the end of the study
 - Hundreds of children with autism were excluded

58. INSTITUTE OF MEDICINE (IOM) 2001

Immunization Safety Review: Measles-Mumps-Rubella Vaccine and Autism

- The committee concluded that the evidence "favors rejection of the causal relationship at the population level between MMR vaccine and ASD, the committee recommends that this issue receive continued attention."
- They agree that it is possible that MMR vaccine can contribute to ASD in a "small number of children."
- They also say that the hypothesized relationship between MMR vaccine and ASD "does not meet these conditions (to recommend no further research) at this time."
- They conclude that further research on the connection is warranted

59. **IP 2004**

Mercury exposure in children with autistic spectrum disorder: Casecontrol study

- Authors found no causal relationship between mercury and autism
- See DeSOTO 2007

60. KERN 2006

Evidence of toxicity, oxidative stress, and neuronal insult in autism.

- Purkinje cell loss, Purkinje cell physiology, toxicity, oxidative stress
- Heavy metals, Purkinje cell loss, and increased brain volume
- Various theories of causation are discussed

61. **KERN 2007**

Sulfhydryl-Reactive Metals in Autism

- Animal study. Mercury, lead, arsenic, cadmium. theory of "poor excreters"
- Glutathione levels are low
- Higher antibiotic use in rats, antibiotic destroys ability to excrete mercury, and also increase uptake, so they make it worse.
- Children with autism can't excrete mercury so it isn't in their hair
- Funded by the Autism Research Institute

62. **KERN 2013** (Geier)

Review: Thimerosal Exposure and the Role of Sulfation Chemistry and Thiol Availability in Autism

- Low thiol, low glutathione, and a compromised detox ability
- All authors were involved in litigation to get the FDA to remove thimerosal from vaccines

63. **KERN 2015**

Systematic assessment of research on autism spectrum disorder (ASD) and mercury reveals conflicts of interest and the need for transparency in autism research

- 86% of studies by industry say mercury does no harm.
- In studies without industry affiliation, only 19% found no relationship between mercury and autism
- Funded by Institute of Chronic Illness & CoMed
- Authors were in vaccine litigation with FDA
- NOTE: Retracted for "inadequate conflict of interest statement"

64. **KERN 2017**

Same as above KERN 2015 with revisions

- In studies with public health/industry affiliation, 86% report mercury is not related to autism
- In studies without such an affiliation, only 21% found no relationship between mercury and autism
- Funded by the Institute of Chronic Illness & CoMed
- Authors in vaccine litigation with FDA. Some have a personal & professional interest in autism

65. KHALED 2016

Altered urinary porphyrins and mercury exposure as biomarkers for autism severity in Egyptian children with autism spectrum disorder

Children with autism had higher mercury, lead, and several porphyrins.
 Dental mercury is related

66. KRIGSMAN 2010

Clinical Presentation and Histologic Findings at Ileocolonoscopy in Children with Autistic Spectrum Disorder and Chronic Gastrointestinal Symptoms

- Children with autism have GI problems with chronic colon inflammation
- Two authors were expert witnesses in a vaccine case

67. **LESLIE 2017**

Temporal association of certain neuopsychiatric disorders following vaccination of children and adolescents: A pilot case-control study

- o ADHD, OCD, anxiety, anorexia, etc. begin after flu or other vaccination
- The cause is not proven.
- Funded by the authors.

68. LI 2014

Transcriptomic Analyses of Neurotoxic Effects in Mouse Brain After Intermittent Neonatal Administration of Thimerosal

- Animal study. Mice injected with (a very high dose) of mercury had neural developmental delay, social interaction deficits and depression.
- Neonatal thimerosal induces dysregulation of neurodevelopment. autism in mice. China
- Funded by several research groups in China

69. **LI 2017**

Subcutaneous injections of aluminum at vaccine adjuvant levels activate innate immune genes in mouse brain that are homologous with biomarkers of autism

- Animal study. Aluminum adjuvant triggered the immune system activation in the brains of male mice, similar to what is found in autism
- Funded by the Dwoskin Family Fdn, Katlyn Fox Fdn, and L.A.S. Dean estate

70. **MADSEN 2003**

Thimerosal and the Occurrence of Autism: Negative Ecological Evidence From Danish Population-Based Data

- NOTE 1: Madsen says Thimerosal was discontinued in 1992. Autism continued to increase; aluminum and other changes or increases in toxic vaccine ingredients are not addressed. It is not mentioned that while the thimerosal was removed from NEW vaccine batches, doctors were allowed to use up their OLD batches, which took years. Besides, thimerosal was not removed from flu vaccines or others besides DPT- not mentioned
- NOTE 2: In-patient diagnosis of autism was reported beginning 1969 but outpatient treatment was included in 1995 (AFTER thimerosal was discontinued) so it is not surprising that more cases of autism were reported - it is not usually a condition requiring inpatient treatment
- NOTE 2: It is remarked that the vaccines were changed gradually, and that the last shipment of mercury-laden vaccines was IN 1992 - therefore, even though on paper they no longer received such vaccines, in actuality they did
- NOTE: A search of Google reveals mercury was only discontinued in 2001, NOT 1992 or even 1999 as various studies assert, and then they were allowed to use up stockpiled vaccines. See what the <u>Illinois Dept. of Public</u> <u>Health says about it</u>

71. MADSEN 2004

MMR Vaccination and Autism: What is the evidence for a causal association?

- He starts with a mention of reports of children regressing and also developing GI problems after the MMR vaccine, but says a review of the literature "revealed no convincing scientific evidence" to support a causal relationship
- Madsen says there are no primate models, the biological plausibility remains questionable, and epidemiological evidence refutes the hypothesis
- Concludes there is no scientific evidence of a connection
- The authors claim "no conflicts of interest directly relevant to the content of this review." They are funded by a grant from the Danish National Research Foundation

72. MAGLIONE 2014

Safety of Vaccines Used for Routine Immunization of US Children: A Systematic Review

- "some vaccines are associated with serious AEs ... weighed against the protective benefits ..."
- Of 20,478 studies found, 67 were reviewed. The authors saw strong evidence for seizures after the MMR vaccine, and "complications" after the varicella (chickenpox) vaccine in immunodeficient children
- They found "moderate evidence" of intussusception after rotavirus, but no strong evidence of autism after the MMR
- One limitation, they said, is that most studies did not investigate or identify the risk factors for adverse events
- Funded by the US Dept of Health

73. **MAWSON 2017**

Pilot comparative study on the health of vaccinated and unvaccinated 6- to 12-year-old U.S. children

- Homeschooled children were studied
- Vaccinated children are less likely to get chickenpox and pertussis, but more likely to get pneumonia, ear infection, allergies, autism, and ADHD, especially if they were premies
- o **NOTE:** There is a myth that this paper was retracted. It is not true
- Funded by Generation Rescue & Children's Medical Safety Research Institute. No conflicts

74. **MEGSON 2000**

Is autism a G-alpha protein defect reversible with natural vitamin A?

- These children have a G-alpha protein defect (affected by the P in DTP) which separates the G-alpha protein from retinoid receptors
- o Then the measles vaccine depletes their existing supply of Vitamin A
- Then artificial Vitamin A Palmitate binds the free G-alpha proteins, deactivating the "off-switch" for several pathways involved in vision, cell growth, hormonal regulation, etc.
- Pertussis shot again at 18 months affects the gut mucosa pathways involved in vision, cell growth, hormonal regulation, etc.
- Children at risk have a parent with G-alpha protein defect: Night blindness, parathyroid resistance, or benign tumor of thyroid or pituitary.
- Vitamin A may reconnect retinoid receptors

75. **MING 2010**

Genetic variant of glutathione peroxidase 1 in autism

- o Gene variants in autism are related to oxidative stress and glutathione
- Under-transmission of the ALA6 gene and others cause glutathione to be low, so oxidative stress is high
- o Compare this study with DUFAULT 2009 & 2012 studies
- NOTE: Vaccines are not discussed in this paper
- NOTE: If it is already possible to identify at least some children genetically vulnerable who must be protected from exposure to mercury or other toxins, why are we ignoring that in the vaccine program?

76. **MOLD 2018**

Aluminium in brain tissue in autism

- These autistic children had the highest level ever recorded of aluminum in their brains.
- Animal models of autism support a connection with aluminum adjuvant and autism.
- A discussion about this study was removed/censored from Youtube
- Funded by Children's Medical Safety Research Inst. No conflicts of interest

77. NAMVARPOUR 2018

Protective role of alpha-lipoic acid in impairments of social and stereotyped behaviors induced by early postnatal administration of thimerosal in male rat

- Animal study. Rats were given mercury mimicking the vaccine schedule developed autism-like behavior
- The group receiving mercury + ALA did not
- Authors at Tehran U in Iran. No conflicts of interest declared

78. **NEVISON 2014**

A comparison of temporal trends in US autism prevalence to trends in suspected environmental factors

- Between 1970 and 2005, polybrominated dephyneyl ethers, aluminum adjuvants & glyphosate pesticide have rising trends that correlate positively with the rise in autism
- The author volunteered her work for SafeMinds

79. **OFFIT 2003b**

Communicating science to the public: MMR vaccine and autism

- Instructs doctors how to tell parents the MMR is safe and won't cause autism. Officially, autism following MMR vaccine is by chance alone. Offit blames the media and Wakefield for suggesting a connection
- The author works for Merck

80. **OFFIT 2008**

Vaccines and Autism Revisited — The Hannah Poling Case

- The author complains that the Poling case "erodes confidence in vaccines."
- o He says it was "poorly reasoned," and that she had fevers, ear infections, etc
- And he claims she wasn't autistic. She had mitochondrial enzyme deficit, and the similarity to autism is "superficial."
- NOTE: There is other research showing that mitochondrial enzyme problems can be part of autism. Here's one: https://pubmed.ncbi.nlm.nih.gov/23839164/
- The author works for Merck

81. **OFFIT 2015**

Vaccines and autism in primate model.

- The author agrees with GADAD (2015) study of groups of 12 monkeys
- Says there is no reason to spend more money on this "fruitless, dead-end hypothesis" and that no more research is needed
- Offit claims "no conflict of interest" although he works for Merck

82. OLCZAK 2009

Neonatal administration of a vaccine preservative, thimerosal, produces lasting impairment of nociception and apparent activation of opioid system in rats

- Animal study. Thimerosal given to rats impairs sensitivity to pain, similar to that seen in autism. It seems to activate the endogenous opioid system
- Funded by the European Commission & Ministry of Science & Higher Ed. Of Poland

83. **PRICE 2010**

Prenatal and infant exposure to thimerosal from vaccines and immunoglobulins and risk of autism

- Price et al found no increased risk of autism
- The two groups compared were children WITH autism and children WITHOUT autism – not those who did and did not receive thimerosal-laced vaccines
- Funded by CDC. Some of the authors have financial ties to Merck,
 Medimmune (Astra-Zeneca), Sanofi Pasteur, Chiron, Wyeth, GSK, and
 Autism Speaks

84. **RAO 2011**

The MMR vaccine and autism: Sensation, refutation, retraction, and fraud

Claims the Wakefield study was a fraud

85. **RATAJCZAK 2011a**

Theoretical aspects of autism: Biomarkers - a review

- The author presents an approach to developing "an objective measure of autism," discussing several biomarkers
- NOTE: Some of these markers indicate susceptibility to vaccine toxins and could lead to identifying children at risk in advance. But now, a decade later, it is not being done. One might be tempted to imagine that nobody is interested because it would admit that the vaccine was "at fault."

86. **RICHMAND 2011**

Hypothesis: Conjugate vaccines may predispose children to autism spectrum disorders.

- The HIB vaccine changes baby's immune system reaction to carbohydrate antigens and may interfere with brain development and/or myelination process
- Autism increases in each country coinciding with the introduction date for this kind of vaccine
- Author claims no conflict of interest

87. **RIMLAND 2000**

Editorial: The Autism Epidemic, Vaccinations, and Mercury

88. **RIMLAND 2002**

Vaccines and Autism

Autism, vaccinations, mercury, MMR

89. **RIMLAND 2004**

Association between thimerosal-containing vaccine and autism

 Response to HVIID 2003 pointing out his affiliation with Statens Serum, maker of the vaccine under study, where vaccines are 80% of income

90. **ROSE 2011**

Conjugate vaccines and autism

- Editorial: Jumps in autism prevalence correspond to the introduction of the HIB Pneumococcal vaccine and another (strep) conjugate vaccine in each country studied
- Author discusses the evolutionary basis

91. **SCHULTZ 2008**

Acetaminophen (paracetamol) use, measles-mumps-rubella vaccination, and autistic disorder

- Results of a parent survey show that Tylenol after MMR ws significantly associated with the development of autism
- NOTE: It is not clear whether the Tylenol was used more because the fever was worse, or whether the results were worse directly because of the Tylenol
- Authors are with U of CA and San Diego State U. Study was done on behalf of the National Autistic Society

92. **SCHULTZ 2010**

Can autism be triggered by acetaminophen activation of the endocannabinoid system?

- o Brain, MMR vaccine, asthma, glucuronidation, sulfation
- Cytochrome P-450

93. **SENEFF 2015**

Aluminum and glyphosate can synergistically induce pineal gland pathology. Connection to gut dysbiosis and neurological disease

- Many neurotoxic chemicals could cause autism, but 3 have an exposure increase that aligns with the history
 - Glyphosate
 - Aluminum adjuvant
 - Polybrominated diphenyl ethers (fire retardant)
- Funded by Quanta Computer, Taiwan. No conflicts

94. **SHARPE 2012**

Thimerosal-derived ethylmercury is a mitochondrial toxin in human astrocytes. Possible role of Fenton chemistry in the oxidation and breakage of mtDNA

- The authors investigated the toxicology of thimerosal on mitochondrial function
- It inhibits mitochondrial respiration, increases superoxides and other toxins, causing damaged DNA bases, and increases "nicks and blunt-ended breaks" in mtDNA
- Funded by Autism Speaks, Verdant Fdn, and others

95. **SHARPE 2013**

B-Lymphocytes from a population of children with autism spectrum disorder and their unaffected siblings exhibit hypersensitivity to thimerosal

- The authors studied mercury's effect on mitochondria from children with and without autism
- Their research shows people with a mild mitochondrial defect may be very susceptible to toxins like thimerosal.
- The thimerosal concentration required to inhibit cell proliferation in those with autism was only 40% the amount needed for controls
- Funded by Autism Speaks, Taub Fdn., others

96. **SINGH 2002**

Abnormal measles-mumps-rubella antibodies and CNS autoimmunity in children with autism

- Lab studies indicated abnormal antibody response to the measles component of the MMR, related to CNS autoimmunity and autism
- Funded by Autism Research Institute & other foundations

97. **SINGH 2003**

Elevated levels of measles antibodies in children with autism

- 83% of autistic children showed abnormal antibody to measles virus, showing abnormal reaction to the measles vaccine
- Not mumps or rubella
- Funded by multiple nonprofits, no conflict of interest

98. **SMITH 2011 (blog)**

Musings from the Chiefio: Oxalate, Gout, Arthritis, and Autism

Oxalic acid, glutamate, vaccines, gut-brain, Alzheimer's

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100. **SZAKACS 2015**

Psychiatric Comorbidity and Cognitive Profile in Children with Narcolepsy with or without Association to the H1N1 Influenza Vaccination

- More of those who were vaccinated had multiple disorders; more had frequent tantrums
- 31 people got narcolepsy after the H1N1 vaccine
- 43% had psychiatric problems
- 29% had ADHD
- 20% had depression
- 10% had anxiety
- o 7% had ODD
- 3% had PDD (autism)
- 3% had eating disorders
- Those with comorbidity had lower IQ but hard to draw conclusions from such a small sample.
- Sweden
- "Not an industry-supported study"

101. TOMLIJENOVIC 2011a

Do aluminum vaccine adjuvants contribute to the rising prevalence of autism?

- Statistical analysis indicates the correlation of aluminum in vaccines and the rise in autism is causal
- Funded by Fox & Dwoskin Fdns

102. UHLMANN 2002 (Wakefield)

Potential viral pathogenic mechanism for new variant inflammatory bowel disease

- 75 of 91 patients diagnosed with ileal lymphonodular hyperplasia/ enterocolitis (bowel inflammation) and developmental disorder had measles virus in their intestinal tissue. Only 5 of the 70 controls did.
- The data confirm as association between the presence of measles virus and gut pathology in children with developmental disorder
- NOTE: As far as I can see, these children had never had measles, so the source of the measles virus was most likely from their MMR vaccine
- The study was funded by the John Ellerman Fdn, Welton Fdn, Medical Interventions for Autism, and Visceral

103. **UNO 2015**

Early exposure to the combined measles—mumps—rubella vaccine and thimerosal-containing vaccines and risk of autism spectrum disorder

- Those studied were adults born from 1986 to 1992; They also received fewer other vaccines than children today, although those they did receive generally did contain thimerosal (mercury).
- The dates of birth were chosen because that is when Japanese children under the age of 3 were getting the MMR combined vaccine
- Statistically, both groups apparently got the same vaccines at the same ages. None of them got the Hep B shot at birth, the way we do it in the US, except for one in the autism group whose mother had been positive for Hep B
- Although statistical differences in the AVERAGE exposure to thimerosal between the groups at 36 months was the same, it seems several in the autism group had received their DPT or other thimerosal-containing shots earlier
- NOTE: The AVERAGES of how much mercury the two groups got were not significantly different. Since we know that it is not what we put INTO the child that causes the problem, but rather that the child who will be affected has trouble EXCRETING whatever is put into him, this is in my opinion a rather interesting but useless exercise.
- The authors have no conflicts of interest to declare

104. **WAKEFIELD 1998**

lleal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

- This is the article later retracted by Lancet
- o chronic enterocolitis, GI, MMR vaccination, autism, celiac
- Wakefield, Much, Anthony, Linnell, Casson, Mialik, Berelowitz, Dhillon, Thomson, Harvey, Valentine, Davies, Walker-Smith
- Comment by Sabra 1998
- Haller: responding to parent fears of vaccines
- News for the Practitioner says perhaps the enterocolitis in the autistic children caused failure of viral clearance, & claims no association found in epidemiological studies

105. YANG 2017

Sudden infant death syndrome, attention-deficit/hyperactivity disorder and vaccines. Longitudinal population analysis

- The authors say that vaccines are not associated with SIDS nor ADHD
- Rates were compared to uptake rates of vaccines as they varied by year and state
- NOTE: For ADHD, they only considered the vaccines given before kindergarten – ignoring both earlier vaccines and later diagnoses
- Funding not reported
- One of the authors is a consultant for Pfizer

106. **YAZBAK 2002**

Live virus vaccination near a pregnancy: flawed policies, tragic results

Autism

107. **YOUNG 2008**

Thimerosal exposure in infants and neurodevelopmental disorders: An assessment of computerized medical records in the Vaccine Safety Datalink

- The Vaccine Safety Datalink showed a "consistent significantly increased rate" for autism, tics, ADHD, etc. to exposure to mercury-containing vaccines
- Funded by National Vaccine Injury Compensation Program
- Authors have been expert witnesses at NVICP

108. **ZERBO 2017b**

Association between influenza infection and vaccination during pregnancy and risk of autism spectrum disorder

- There was no association between flu in pregnancy and autism
- There WAS an increase in risk when mothers got a flu shot in the first trimester
- The authors decided it was "chance" after adjusting for multiple comparisons
- See Letter to Editor by DONZELLI 2017
- See Letter to Editor by HOOKER 2017
- Funded by Kaiser. Grant support from GSK, Sanofi Pasteur, Merck, Pfizer,
 Protein Science, Medimmune, Novartis