

50 études scientifiques dont les décideurs doivent prendre connaissance

1. YALE SCIENTISTS FIND STRONG ASSOCIATION BETWEEN VACCINATIONS AND ANOREXIA, OCD, AND ANXIETY DISORDER

Temporal Association of Certain Neuropsychiatric Disorders Following Vaccination of Children and Adolescents: A Pilot Case-Control Study

<http://vaccinesafetycommission.org/pdfs/01-2017-Frontiers-Temporal.pdf>

Frontiers in Psychiatry, January 2017, Douglas L. Leslie, Robert A. Kobre, Brian J. Richmand

Summary: "Subjects with newly diagnosed anorexia nervosa were more likely than controls to have had any vaccination in the previous 3 months [hazard ratio (HR) 1.80, 95% confidence interval 1.21-2.68]. Influenza vaccinations during the prior 3, 6, and 12 months were also associated with incident diagnoses of AN, OCD, and an anxiety disorder. Several other associations were also significant with HRs greater than 1.40 (hepatitis A with OCD and AN; hepatitis B with AN; and meningitis with AN and chronic tic disorder). This pilot epidemiologic analysis implies that the onset of some neuropsychiatric disorders may be temporally related to prior vaccinations in a subset of individuals."

2. ITALIAN SCIENTISTS FIND UNEXPECTED CONTAMINANTS IN ALL PEDIATRIC VACCINES, INCLUDING LEAD, STAINLESS STEEL, TUNGSTEN, IRON, AND CHROMIUM

New Quality-Control Investigations on Vaccines: Micro- and Nanocontamination

<http://vaccinesafetycommission.org/pdfs/02-2017-Medcrave-Nanocontamination.pdf>

International Journal of Vaccines and Vaccination, January 2017, Dr. Antonietta M. Gatti, Stefano Montanari

Summary: Scientists found contaminants in all vaccines that are not listed on the label of the vaccines. "The analyses carried out show that in all samples checked vaccines contain non biocompatible and bio-persistent foreign bodies which are not declared by the Producers, against which the body reacts in any case. This new investigation represents a new quality control that can be adopted to assess the safety of a vaccine. Our hypothesis is that this contamination is unintentional, since it is probably due to polluted components or procedures of industrial processes (e.g. filtrations) used to produce vaccines, not investigated and not detected by the Producers. If our hypothesis is actually the case, a close inspection of the working places and the full knowledge of the whole procedure of vaccine preparation would probably allow to eliminate the problem."

3. ISRAELI AND ITALIAN SCIENTISTS WARN THAT VACCINE ADJUVANTS (ALUMINUM) ARE CAUSING A WIDE-RANGE OF AUTOIMMUNE CONDITIONS, INCLUDING SJOGREN'S SYNDROME

Autoimmune/Inflammatory Syndrome Induced by Adjuvants and Sjogren's Syndrome

<http://vaccinesafetycommission.org/pdfs/03-2016-IMAJ-ISRAEL.pdf>

IMAJ VOL 18, March-April 2016, Serena Colafrancesco, Carlo Perricone, Yehuda Shoenfeld

Summary: "Several case reports have suggested that both vaccines and silicone may trigger the development of SS [Sjogren's syndrome, a chronic systemic autoimmune inflammatory condition involving the exocrine glands]. Aluminum is one of the principal adjuvants used in vaccine formulation and may be responsible for the development of ASIA syndrome. It seems that its ability to behave as an adjuvant might be related to evidence that aluminum salts seem to both induce the activation of dendritic cells and complement components and increase the level of chemokine secretion at the injection site... other vaccines including Bacillus Calmette Gue?rin (BCG), hepatitis A and/or B and human papillomavirus, should be avoided or considered only in selected patients... There is considerable evidence raising the possibility of vaccine-triggered autoimmunity"

4. INFANTS VACCINATED WITH MULTIPLE VACCINES AT ONCE HAVE MUCH HIGHER HOSPITALIZATIONS AND DEATH RATES THAN INFANTS WHO RECEIVE FEWER SIMULTANEOUS VACCINES

[Combining Childhood Vaccines at One Visit Is Not Safe](#)

Journal of American Physicians and Surgeons, Summer 2016, Neil Z. Miller

Summary: "Our study showed that infants who receive several vaccines concurrently, as recommended by CDC, are significantly more likely to be hospitalized or die when compared with infants who receive fewer vaccines simultaneously. It also showed that reported adverse effects were more likely to lead to hospitalization or death in younger infants. The safety of CDC's childhood vaccination schedule was never affirmed in clinical studies. Vaccines are administered to millions of infants every year, yet health authorities have no scientific data from synergistic toxicity studies on all combinations of vaccines that infants are likely to receive. National vaccination campaigns must be supported by scientific evidence."

5. ISRAELI, CANADIAN, AND COLOMBIAN SCIENTISTS SHOW THAT GARDASIL VACCINE TRIGGERS BRAIN INFLAMMATION AND AUTOIMMUNITY IN MICE

Behavioral abnormalities in female mice following administration of aluminum adjuvants and the human papillomavirus (HPV) vaccine Gardasil

<http://vaccinesafetycommission.org/pdfs/05-2016-Immunol-Mice-HPV.pdf>

Immunol Res, July 2016, Rotem Inbar, Ronen Weiss, Lucija Tomljenovic, Maria-Teresa Arango, Yael Deri, Christopher A, Shaw, Joab Chapman, Miri Blank, Yehuda Shoenfeld

Summary: "Vaccine adjuvants and vaccines may induce autoimmune and inflammatory manifestations in susceptible individuals. To date most human vaccine trials utilize aluminum (Al) adjuvants as placebos despite much evidence showing that Al in vaccine-relevant exposures can be toxic to humans and animals...It appears that Gardasil via its Al adjuvant and HPV antigens has the ability to trigger neuroinflammation and autoimmune reactions, further leading to behavioral changes...In light of these findings, this study highlights the necessity of proceeding

with caution with respect to further mass-immunization practices with a vaccine of yet unproven long-term clinical benefit in cervical cancer prevention"

6. ALUMINUM IN VACCINES IS HIGHLY NEUROTOXIC AND EXPOSURE LEVELS GIVEN TO INFANTS HAVE DRAMATICALLY INCREASED

[Aluminum in Childhood Vaccines Is Unsafe](#)

Journal of American Physicians and Surgeons, Winter 2016, Neil Z. Miller

Summary: "Infants and young children throughout the world receive high quantities of aluminum from multiple inoculations. Incremental changes to the vaccination schedule during the past several years significantly increased the quantity of aluminum in childhood shots. Numerous studies provide compelling evidence that injected aluminum can be detrimental to health. Aluminum is capable of remaining in cells long after vaccination and may cause neurologic and autoimmune disorders. During early development, the child's brain is more susceptible to toxins and the kidneys are less able to eliminate them. Thus, children have a greater risk than adults of adverse reactions to aluminum in vaccines. Millions of children every year are injected with vaccines containing mercury and aluminum despite well-established experimental evidence of the potential for additive or synergistic toxicity when an organism is exposed to two or more toxic metals."

7. ALZHEIMER'S VICTIMS HAVE VERY HIGH BRAIN ALUMINUM LEVELS, A POTENT NEUROTOXIN

[Aluminium in brain tissue in familial Alzheimer's disease](#)

Journal of Trace Elements in Medicine and Biology, November 2016, Ambreen Mirza, Andrew King, Claire Troakes, Christopher Exley

Summary: "Aluminium has been shown to be present in brain tissue in sporadic Alzheimer's disease. We have made the first ever measurements of aluminium in brain tissue from 12 donors diagnosed with familial Alzheimer's disease. The concentrations of aluminium were extremely high, for example, there were values in excess of 10^{??}g/g tissue dry wt. in 5 of the 12 individuals. Overall, the concentrations were higher than all previous measurements of brain aluminium except cases of known aluminium-induced encephalopathy. We have supported our quantitative analyses using a novel method of aluminium-selective fluorescence microscopy to visualise aluminium in all lobes of every brain investigated. The unique quantitative data and the stunning images of aluminium in familial Alzheimer's disease brain tissue raise the spectre of aluminium's role in this devastating disease."

8. VACCINES IMPLICATED IN EPIDEMIC OF FOOD ALLERGIES

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

<http://vaccinesafetycommission.org/pdfs/08-2015-Journal-Food-Allergies.pdf>

Journal of Developing Drugs, 2015, Vinu Arumugham

Summary: "Numerous studies have demonstrated that food proteins contained in vaccines/injections induce food allergy. The IOM's authoritative report has concluded the same. Allergen quantities in vaccines are unregulated. Today kids are more atopic. C-section births bias the newborn's immune system towards IgE synthesis due to sub-optimal gut microbiome [19]. C-section birth rates have gone up 50% in the last few decades. The vaccine schedule has increased the number of vaccine shots to 30-40 and up to five vaccines are simultaneously administered to children. Vaccines also contain adjuvants such as aluminum compounds and pertussis toxin that bias towards IgE synthesis. Given these conditions, the predictable and observed outcome is a food allergy epidemic."

9. CHINESE SCIENTISTS FIND MICE INJECTED WITH THIMEROSAL (VACCINE MERCURY) HAVE BEHAVIORAL IMPAIRMENTS SIMILAR TO AUTISM

[Transcriptomic Analyses of Neurotoxic Effects in Mouse Brain After Intermittent Neonatal Administration of Thimerosal](#)

Toxicological Sciences, March 2014, Xialong Li, Fengqin Qu, Wenjuan Xe, Fengli Wang, Hongmei Lui

Summary: "Thimerosal-treated mice exhibited neural development delay, social interaction deficiency, and inclination of depression. Apparent neuropathological changes were also observed in adult mice neonatally treated with thimerosal. High-throughput RNA sequencing of autistic-behaved mice brains revealed the alternation of a number of canonical pathways involving neuronal development, neuronal synaptic function, and the dysregulation of endocrine system."

10. NEURODEVELOPMENTAL DISORDERS ARE MUCH MORE COMMON IN CHILDREN WHO RECEIVED MERCURY-CONTAINING VACCINES

[A Dose-Response Relationship between Organic Mercury Exposure from Thimerosal-Containing Vaccines and Neurodevelopmental Disorders](#)

Int. J. Environ. Res. Public Health, 2014, David A. Geier, Brian S. Hooker, Janet K. Kern, Paul G. King, Lisa K. Sykes and Mark R. Geier

Summary: "On a per microgram of organic-Hg basis, PDD (odds ratio (OR) = 1.054), specific developmental delay (OR = 1.035), tic disorder (OR = 1.034) and hyperkinetic syndrome of childhood (OR = 1.05) cases were significantly more likely than controls to receive increased organic-Hg exposure. This study provides new epidemiological evidence supporting a significant relationship between increasing organic-Hg exposure from TCVs and the subsequent risk of an ND diagnosis."

11. UC-BOULDER PROFESSOR: THE AUTISM EPIDEMIC IS REAL AND THEREFORE MUST BE THE PRODUCT OF AN ENVIRONMENTAL FACTOR

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

<http://vaccinesafetycommission.org/pdfs/11-2014-Env-Health-Nevison.pdf>

Environmental Health, 2014, Cynthia D Nevison

Summary: "Diagnosed autism prevalence has risen dramatically in the U.S over the last several decades and continued to trend upward as of birth year 2005. The increase is mainly real and has occurred mostly since the late 1980s."

12. FULLY VACCINATED CHILDREN REQUIRE MUCH MORE EMERGENCY CARE THAN UNDERVACCINATED CHILDREN

A Population-Based Cohort Study of Undervaccination in 8 Managed Care Organizations Across the United States

<http://vaccinesafetycommission.org/pdfs/12-2013-JAMA-Ped-Undervax.pdf>

JAMA Pediatrics, January 2013, Jason M. Glanz, PhD; Sophia R. Newcomer, MPH; Komal J. Narwaney, MD, PhD; Simon J. Hambidge, MD, PhD; Matthew F. Daley, MD; Nicole M. Wagner, MPH

Summary: "Children who were undervaccinated because of parental choice had lower rates of outpatient visits, lower rates of ED [emergency room] encounters.. undervaccinated children had lower outpatient visit rates compared with children who were age-appropriately vaccinated."

13. ISRAELI AND ITALIAN RESEARCHERS DEMONSTRATE THAT EXPOSURE TO ALUMINUM IN VACCINES CAN LEAD TO AUTOIMMUNE AND BRAIN DYSFUNCTION

Autoimmune/inflammatory syndrome induced by adjuvants (ASIA) 2013: Unveiling the pathogenic, clinical and diagnostic aspects

<http://vaccinesafetycommission.org/pdfs/13-2013-Autoimmunity-Perricone.pdf>

Journal of Autoimmunity, October 2013, Carlo Perricone, Serena Colafrancesco, Roei D. Mazor, Alessandra Soriano, Yehuda Shoenfeld

Summary: "The data herein illustrate the critical role of environmental factors in the induction of autoimmunity. Indeed, it is the interplay of genetic susceptibility and environment that is the major player for the initiation of breach of tolerance. Several neurologic demyelinating diseases have been reported following vaccination, the main being Guillaine Barre? syndrome (GBS). Another demyelinating disease associated with vaccines is the acute disseminated encephalomyelitis (ADEM). This is an inflammatory disease of the central nervous system frequently occurring post-vaccination. Rabies, diphtheria tetanus polio, smallpox, measles, mumps, rubella, Japanese B encephalitis, pertussis, influenza, hepatitis B, and the Hog vaccines have been called to be involved."

14. CANADIAN RESEARCHERS: ALUMINUM IN VACCINES CAN CAUSE BOTH AUTOIMMUNITY AND NEUROLOGICAL DAMAGE

Aluminum in the central nervous system (CNS): toxicity in humans and animals, vaccine adjuvants, and autoimmunity

<http://vaccinesafetycommission.org/pdfs/14-2013-Immunol-Res-Shaw.pdf>

Immunol Res, 2013, Chris Shaw, L. Tomljenovic

Summary: "In young children, a highly significant correlation exists between the number of pediatric aluminum-adjuvanted vaccines administered and the rate of autism spectrum disorders. Many of the features of aluminum- induced neurotoxicity may arise, in part, from autoimmune reactions, as part of the ASIA

syndrome. Aluminum is added to vaccines to help the vaccine work more effectively, but unlike dietary aluminum which will usually clear rapidly from the body, aluminum used in vaccines and injected is designed to provide a long-lasting cellular exposure. Thus, the problem with vaccine- derived aluminum is really twofold: It drives the immune response even in the absence of a viral or bacterial threat and it can make its way into the central nervous system. It is not really a matter of much debate that aluminum in various forms can be neurotoxic."

15. SCIENTISTS FROM MEXICO AND ISRAEL EXPLAIN ADJUVANTS (ALUMINUM) USED IN VACCINES CAN INDUCE AUTOIMMUNITY

Autoimmune/inflammatory syndrome induced by adjuvants (Shoenfeld's syndrome): clinical and immunological spectrum

<http://vaccinesafetycommission.org/pdfs/15-2013-Expert-Olga-Shoenfeld.pdf>

Expert Rev. Clin. Immunol. 2013 Olga Vera-Lastra, Gabriela Medina, Maria Del-Pilar Cruz Dominguez, Luis J Jara

Summary: "The activation of the immune system by adjuvants, a desirable effect, could trigger manifestations of autoimmunity or autoimmune disease. Recently, a new syndrome was introduced, autoimmune/inflammatory syndrome induced by adjuvants (ASIA), that includes postvaccination phenomena, macrophagic myofasciitis, Gulf War syndrome and siliconosis. Various adjuvants used in vaccines enhance a specific immune response against antigens and may produce autoimmunity and AID both in experimental models and humans. The clinical and laboratory data support an association between adjuvants and autoimmune diseases."

16. INFANTS RECEIVING MERCURY-CONTAINING VACCINES HAD MUCH HIGHER RATES OF AUTISM THAN INFANTS RECEIVING VACCINES WITHOUT MERCURY

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

<http://vaccinesafetycommission.org/pdfs/16-2013-Trans-Neuro-Mercury.pdf>

Translational Neurodegeneration, David A. Geier, Brian S. Hooker, Janet K. Kern, Paul G. King, Lisa K. Sykes, Mark R. Geier

Summary: "The present study provides new epidemiological evidence supporting an association between increasing organic-Hg [mercury] exposure from Thimerosal-containing childhood vaccines and the subsequent risk of ASD [autism] diagnosis."

17. BRITISH SCIENTISTS SOUNDS THE ALARM ON ALUMINUM TOXICITY AND QUESTIONS LACK OF RESEARCH ON ALUMINUM USED IN VACCINES

[Human exposure to aluminium](#)

Environmental Science Processes & Impacts, 2013, Christopher Exley

Summary: "The immunopotency of aluminium has been known for at least 100 years and still today forms the basis for the use of aluminium salts as adjuvants in vaccinations and allergy therapies. What is then surprising is the uncertainty regarding their mechanism of action and burgeoning evidence of their toxicity in

potentially susceptible individuals."

18. ISRAELI, ITALIAN, AND CANADIAN RESEARCHERS TIE HPV VACCINE TO PRIMARY OVARIAN FAILURE

Human Papilloma Virus Vaccine and Primary Ovarian Failure: Another Facet of the Autoimmune/Inflammatory Syndrome Induced by Adjuvants

<http://vaccinesafetycommission.org/pdfs/18-2013-Reproductive-Ovarian.pdf>

American Journal of Reproductive Immunology, 2013, Selena Colafrancesco, Carlo Perricone, Lucija Tomljenovic, Yehuda Shoenfeld

Summary: "We documented here the evidence of the potential of the HPV vaccine to trigger a life-disabling autoimmune condition. The increasing number of similar reports of post HPV vaccine-linked autoimmunity and the uncertainty of long-term clinical benefits of HPV vaccination are a matter of public health that warrants further rigorous inquiry."

19. INFANTS WHO RECEIVED MORE VACCINES HAD MUCH HIGHER HOSPITALIZATION AND DEATH RATES THAN INFANTS WHO RECEIVED FEWER VACCINES

Relative trends in hospitalizations and mortality among infants by the number of vaccine doses and age, based on the Vaccine Adverse Event Reporting System (VAERS), 1990-2010

<http://vaccinesafetycommission.org/pdfs/18-2013-Reproductive-Ovarian.pdf>

Human and Experimental Toxicology, 2012, GS Goldman, NZ Miller

Summary: "The hospitalization rate increased linearly from 11.0% (107 of 969) for 2 doses to 23.5% (661 of 2817) for 8 doses and decreased linearly from 20.1% (154 of 765) for children aged < 0.1 year to 10.7% (86 of 801) for children aged 0.9 year. Our findings show a positive correlation between the number of vaccine doses administered and the percentage of hospitalizations and deaths. Since vaccines are given to millions of infants annually, it is imperative that health authorities have scientific data from synergistic toxicity studies on all combinations of vaccines that infants might receive. Finding ways to increase vaccine safety should be the highest priority."

20. ISRAELI SCIENTISTS EXPLAIN ROLE VACCINE ADJUVANTS (ALUMINUM) ARE PLAYING IN AUTOIMMUNE DISEASES

The spectrum of ASIA: 'Autoimmune (Auto-inflammatory) Syndrome induced by Adjuvants'

<http://vaccinesafetycommission.org/pdfs/20-2012-Lupus-ASIA.pdf>

Lupus, 2012, N Agmon-Levin, GRV Hughes, Y Shoenfeld

Summary: "It seems that the role of adjuvants [aluminum in vaccines] in the pathogenesis of immune-mediated diseases can no longer be ignored, and the medical community must look towards producing safer adjuvants. Another cornerstone of ASIA is the complex interaction between autoimmunity and adjuvanted vaccines. On the one hand vaccines are beneficial for the vast majority of subjects including those who suffer from autoimmune-rheumatic diseases as delineated in this issue by van Assen and Bijl.¹⁶ On the other hand in a small

minority of individuals vaccine can trigger the appearance of autoantibodies as documented by Vista et al.¹⁷ and Perdan-Pirkmajer et al.¹⁸ Moreover, a link between immunization and defined autoimmune diseases has been reported elsewhere and herein."

21. POLISH SCIENTISTS PROPOSE NEW VACCINE SCHEDULE, EXPRESS CONCERN AT HIGH RATE OF VACCINE ADVERSE EVENTS

Neurologic adverse events following vaccination

<http://vaccinesafetycommission.org/pdfs/21-2012-Prog-Health-Neurologic.pdf>

Prog Health Sci, 2012, Sienkiewicz D., Ku?ak W., Okurowska-Zawada B., Paszko-Patej G.

Summary: "Thus, it is not reasonable to assume that manipulation of the immune system through an increasing number of vaccinations during critical periods of brain development will not result in adverse neurodevelopmental outcomes. European countries have different models of vaccination that have been modified in recent decades. In Scandinavian countries, which have the lowest infant mortality, vaccinations are voluntary and infants receive their first vaccination at 3 months of age. In the first year of life, they receive 9 recommended vaccinations, and at 18 months - MMR. The acellular pertussis vaccine (DTaP) is used, as well as IPV. BCG and Hepatitis B vaccines are administered to children from high risk groups. Similar vaccination schedules exist in other European countries, where the vaccination of neonates was abandoned and a ban on the use of thimerosal in vaccines was introduced. Note also that Scandinavian countries have the lowest rates of autism compared to other developed countries in which children are vaccinated much earlier and with greater number of vaccines."

22. CANADIAN RESEARCHERS REVIEW LITERATURE ON AUTOIMMUNITY AND NEUROLOGICAL RISKS FROM VACCINE ADJUVANT ALUMINUM, EXPRESS DOUBTS REGARDING SAFETY TESTING

Mechanisms of aluminum adjuvant toxicity and autoimmunity in pediatric populations,

<http://vaccinesafetycommission.org/pdfs/22-2012-Lupus-Aluminum-Shaw.pdf>

Lupus, 2012, L Tomljenovic, CA Shaw

Summary: "Immune challenges during early development, including those vaccine-induced, can lead to permanent detrimental alterations of the brain and immune function. Experimental evidence also shows that simultaneous administration of as little as two to three immune adjuvants can overcome genetic resistance to autoimmunity. In spite of the widespread agreement that vaccines are largely safe and serious adverse complications are extremely rare, a close scrutiny of the scientific literature does not support this view. For example, to date, the clinical trials that could adequately address vaccine safety issues have not been conducted (i.e., comparing health outcomes in vaccinated versus non-vaccinated children). Infants and young children should not be viewed as 'small adults.' Their unique physiology makes them much more vulnerable to noxious environmental insults in comparison with the adult population. In spite of this, children are routinely exposed to much higher levels of Al vaccine adjuvants than adults, even though adequate safety data on these compounds are lacking. That Al vaccine adjuvants can induce

significant autoimmune conditions in humans can hardly be disputed, although still debatable is how common such side effects are. However, the existing data (or lack thereof) raise questions on whether the current vaccines aimed at pediatric populations can be accepted as having adequate safety profiles. Because infants and children represent those who may be most at risk for complications following vaccination, a more rigorous evaluation of potential vaccine-related adverse health impacts in pediatric populations than what has been provided to date is urgently needed."

23. DANISH RESEARCHERS FOUND CHILDREN 8-TIMES MORE LIKELY TO HAVE A FEBRILE SEIZURE ON THE DAY OF VACCINATION OF DTAP-IPV-HIB VACCINE

Risk of Febrile Seizures and Epilepsy After Vaccination With Diphtheria, Tetanus, Acellular Pertussis, Inactivated Poliovirus, and Haemophilus Influenzae Type b

<http://vaccinesafetycommission.org/pdfs/23-2012-JAM-Denmark.pdf>

JAMA 2012, Yuelian Sun, Jakob Christensen, Anders Hviid, Jiong Li

Summary: "DTaP-IPV-Hib vaccination was associated with an increased risk of febrile seizures on the day of the first 2 vaccinations given at 3 and 5 months."

24. CANADIAN RESEARCHERS REPORT VACCINE ALUMINUM AND AUTISM PREVALENCE RELATED

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

<http://vaccinesafetycommission.org/pdfs/24-2011-Inorg-Bio-Autism-AI-Shaw.pdf>

J Inorg Biochem. Tomljenovic L, Shaw CA.

Summary: "Dysfunctional immunity and impaired brain function are core deficits in ASD. Aluminum (Al), the most commonly used vaccine adjuvant, is a demonstrated neurotoxin and a strong immune stimulator. Hence, adjuvant Al has the potential to induce neuroimmune disorders. The application of the Hill's criteria to these data indicates that the correlation between Al in vaccines and ASD may be causal. Because children represent a fraction of the population most at risk for complications following exposure to Al, a more rigorous evaluation of Al adjuvant safety seems warranted.. By satisfying eight of the Hill's criteria for establishing causality applicable to our study, we show that Al-adjuvanted vaccines may be a significant etiological factor in the rising prevalence of ASD in the Western world. We also show that children from countries with the highest ASD prevalence appear to have a much higher exposure to Al from vaccines, particularly at 2 months of age."

25. HARVARD RESEARCHERS FIND VACCINE MERCURY IMPACTS NEURODEVELOPMENT IN RATS

Maternal Thimerosal Exposure Results in Aberrant Cerebellar Oxidative Stress, Thyroid Hormone Metabolism, and Motor Behavior in Rat Pups; Sex- and Strain-Dependent Effects

<http://vaccinesafetycommission.org/pdfs/25-2011-Cerebellum-TM.pdf>

Cerebellum, 2012, Z. L. Sulkowski & T. Chen & S. Midha & A. M. Zavacki & Elizabeth M. Sajdel-Sulkowska

Summary: "Our data indicate that maternal TM exposure results in a delayed auditory maturation and impaired motor learning in rat pups. Factors that may contribute to these abnormalities include increased cerebellar oxidative stress and decreased D2 activity resulting local intracerebellar T3 deficiency and altered TH-dependent gene expression. Indeed, provided here is the first evidence of altered TH-dependent gene expression following TM exposure. Our data thus demonstrate a negative neurodevelopmental impact of perinatal TM exposure, which appears to be both strain- and sex-dependent. Although, additional studies are needed, data derived from TM exposure in rats may provide clues relevant to understanding neurodevelopmental consequences of TM exposure in humans.

26. SUNY-STONY BROOK SCIENTISTS FIND BOYS RECEIVING THE HEPATITIS B VACCINE SERIES WERE THREE TIMES MORE LIKELY TO HAVE AUTISM

Hepatitis B Vaccination of Male Neonates and Autism Diagnosis, NHIS 1997-2002

<http://vaccinesafetycommission.org/pdfs/26-2010-Hep-B-Autism.pdf>

Journal of Toxicology and Environmental Health, April 2010, Carolyn Gallagher and Melody Goodman

Summary: "Boys vaccinated as neonates had threefold greater odds for autism diagnosis compared to boys never vaccinated or vaccinated after the first month of life. Findings suggest that U.S. male neonates vaccinated with the hepatitis B vaccine prior to 1999 (from vaccination record) had a threefold higher risk for parental report of autism diagnosis compared to boys not vaccinated as neonates during that same time period."

27. BRITISH AND SWEDISH SCIENTISTS RAISE CONCERNS ABOUT LIMITED UNDERSTANDING OF VACCINE ALUMINUM'S IMPACT ON THE HUMAN BODY, RAISE RISK OF AUTOIMMUNE RESPONSE

The immunobiology of aluminium adjuvants: how do they really work?

<http://vaccinesafetycommission.org/pdfs/27-2010-Trends-Exley.pdf>

Trends in Immunology 2010, Christopher Exley, Peter Siesjo, Hakan Eriksson

Summary: "Aluminium adjuvants potentiate the immune response, thereby ensuring the potency and efficacy of typically sparingly available antigen. Their concomitant critical importance in mass vaccination programmes may have prompted recent intense interest in understanding how they work and their safety. Progress in these areas is stymied, however, by a lack of accessible knowledge pertaining to the bioinorganic chemistry of aluminium adjuvants, and, consequently, the inappropriate application and interpretation of experimental models of their mode of action.. In relation to this possible 'indirect adjuvanticity' there are burgeoning examples in the scientific literature of aluminium salts inducing sensitization to substances that might not normally be considered as antigens. For example, such effects may contribute towards allergies to foods"

28. BABY MONKEYS GIVEN U.S. VACCINE SCHEDULE HAD BRAIN

ABNORMALITIES IN REGION RESPONSIBLE FOR SOCIAL AND EMOTIONAL DEVELOPMENT

Influence of pediatric vaccines on amygdala growth and opioid ligand binding in rhesus macaque infants: A pilot study

<http://vaccinesafetycommission.org/pdfs/28-2010-Acta-Rhesus-Monkeys.pdf>

Acta Neurobiol Exp, 2010, Laura Hewitson, Brian J. Lopresti, Carol Stott

Summary: "The data suggest that vaccine exposure may be associated with significant disturbances in central opioidergic pathways in this model... Volumetric analyses identified significantly greater total brain volume in exposed compared with unexposed animals at both measured time points. These results raise the possibility that multiple vaccine exposures during the previous 3-4 months may have had a significant impact on brain growth and development."

29. SCIENTISTS RAISE CONCERNS ABOUT DENIAL OF ENVIRONMENTAL TOXIN LINK TO AUTISM, REVIEW LITERATURE

Sorting out the spinning of autism: heavy metals and the question of incidence

<http://vaccinesafetycommission.org/pdfs/29-2010-Acta-Neuro-DeSoto.pdf>

Acta Neurobiol, 2010 Mary Catherine DeSoto and Robert T. Hitlan

Summary: "In this paper, we argue that increasingly over the past decade, positions that deny a link to environmental toxins and autism are based on relatively weak science and are disregarding the bulk of scientific literature. The question about toxic exposure and autism is open, with the weight of evidence favoring a connection that is not well understood. Although it is not possible to say with certainty, it seems likely that the connection would be mediated by genetic susceptibility and ability to detoxify. That is, some people have genotypes that confer higher susceptibility to toxic exposures. If so, then 50 years ago few people would have had enough toxic exposure to have the neurological changes that result in autism."

30. RESEARCHERS WARN OF SIZABLE DIFFERENCE IN INDIVIDUAL REACTION TO VACCINES, STRESS NEED TO AVOID INCREASING SIDE EFFECTS OF VACCINES

Interindividual variations in the efficacy and toxicity of vaccines

<http://vaccinesafetycommission.org/pdfs/30-2010-toxicology-interindividual.pdf>

Toxicology 2010, Thomas C, Moridani M

Summary: "A number of currently available vaccines have shown significant differences in the magnitude of immune responses and toxicity in individuals undergoing vaccination. A number of factors may be involved in the variations in immune responses, which include age, gender, race, amount and quality of the antigen, the dose administered and to some extent the route of administration, and genetics of immune system. Hence, it becomes imperative that researchers have tools such as genomics and proteomics at their disposal to predict which set of population is more likely to be non-responsive or develop toxicity to vaccines.. With the increasing number of side effects associated with a number of vaccines reported

over the years, it has become imperative to develop new technologies that can effectively assist in the development and evaluation of vaccines for efficacy and toxicity."

31. VACCINE ALUMINUM INJECTED INTO MICE CREATED SIGNIFICANT MOTOR DEFICITS AND MOTOR NEURON DEGENERATION

Aluminum hydroxide injections lead to motor deficits and motor neuron degeneration

<http://vaccinesafetycommission.org/pdfs/31-2009-J-Inorganic-Shaw.pdf>

Journal of Inorg Biochem, February 2010, Christopher A. Shaw, Michael S. Petrik

Summary: "Aluminum-treated mice showed significantly increased apoptosis of motor neurons and increases in reactive astrocytes and microglial proliferation within the spinal cord and cortex. Morin stain detected the presence of aluminum in the cytoplasm of motor neurons with some neurons also testing positive for the presence of hyper-phosphorylated tau protein, a pathological hallmark of various neurological diseases, including Alzheimer's disease and frontotemporal dementia. A second series of experiments was conducted on mice injected with six doses of aluminum hydroxide. Behavioural analyses in these mice revealed significant impairments in a number of motor functions as well as diminished spatial memory capacity. The demonstrated neurotoxicity of aluminum hydroxide and its relative ubiquity as an adjuvant suggest that greater scrutiny by the scientific community is warranted. Overall, the results reported here mirror previous work that has clearly demonstrated that aluminum, in both oral and injected forms, can be neurotoxic."

32. NEWBORN MONKEYS GIVEN A MERCURY-CONTAINING HEPATITIS B VACCINE HAD SIGNIFICANT DELAYS IN NEONATAL REFLEXES AND NEUROLOGICAL DEVELOPMENT

Delayed acquisition of neonatal reflexes in newborn primates receiving a thimerosal-containing Hepatitis B vaccine: Influence of gestational age and birth weight

<http://vaccinesafetycommission.org/pdfs/32-2009-Neurotoxicology-Primates.pdf>

Neurotoxicology, Sep 2009 Laura Hewitson et. al.

Summary: "In summary, this study provides preliminary evidence of abnormal early neurodevelopmental responses in male infant rhesus macaques receiving a single dose of Th-containing HB vaccine at birth and indicates that further investigation is merited."

33. FRENCH SCIENTISTS REPORT ALUMINUM FROM VACCINES CAUSES CHRONIC COGNITIVE DYSFUNCTION

Long-term persistence of vaccine-derived aluminum hydroxide is associated with chronic cognitive dysfunction

<http://vaccinesafetycommission.org/pdfs/33-2009-Inorganic-Chem-Alum.pdf>

Journal of Inorganic Biochemistry, 2009, Couette M1, Boisse MF, Maison P, Brugieres P, Cesaro P, Chevalier X, Gherardi RK, Bachoud-Levi AC, Authier FJ.

Summary: "In conclusion, long-term persistence of vaccine-derived aluminumhydroxide within the body assessed by MMF is associated with cognitive

dysfunction, not solely due to chronic pain, fatigue and depression. In conclusion, this work is the first firm demonstration that cognitive dysfunction is a central feature in MMF, this dysfunction being much more frequent and severe than suspected by routine neurological evaluation. Instead of being a non-specific bystander effect of pain, fatigue or depression, MACD seems to reflect an underlying organic, inflammatory or toxic, brain involvement."

34. SWEDISH RESEARCHERS FOUND THAT CHILDREN WHO HAD NATURAL MEASLES INFECTION HAD MUCH LOWER RATES OF ALLERGY THAN CHILDREN VACCINATED AGAINST MEASLES

Allergic Disease and Atopic Sensitization in Children in Relation to Measles Vaccination and Measles Infection

<http://vaccinesafetycommission.org/pdfs/34-2009-Pediatrics-Measles.pdf>

Pediatrics 2009 Rosenlund H1, Bergstrom A, Alm JS, Swartz J, Scheynius A, van Hage M, Johansen K, Brunekreef B, von Mutius E, Ege MJ, Riedler J, Braun-Fahrlander C, Waser M, Pershagen G; PARSIFAL Study Group.

Summary: "However, in these analyses, measles infection [natural measles] was inversely associated with any allergic symptom or physician's diagnosis of allergy."

35. BOYS RECEIVING THE HEPATITIS B VACCINE SERIES WERE NINE TIMES FOR LIKELY TO NEED SPECIAL EDUCATION AND BE DEVELOPMENTALLY DISABLED

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

<http://vaccinesafetycommission.org/pdfs/35-2008-Hep-B-EIS.pdf>

Toxicological and Environmental Chemistry, September 2008, Carolyn Gallagher and Melody Goodman

Summary: "This study investigated the association between vaccination with the Hepatitis B triple series vaccine. The odds of receiving Special Education were approximately nine times as great for vaccinated boys (n 1/4 46) as for unvaccinated boys (n 1/4 7), after adjustment for confounders. This study found statistically significant evidence to suggest that boys in United States who were vaccinated with the triple series Hepatitis B vaccine, were more susceptible to developmental disability than were unvaccinated boys."

36. CHILDREN WHO DELAYED THE TIMING OF THE DPT VACCINE HAD LOWER RATES OF ASTHMA

Delay in diphtheria, pertussis, tetanus vaccination is associated with a reduced risk of childhood asthma?

<http://vaccinesafetycommission.org/pdfs/36-2008-DPT-Asthma.pdf>

Journal of Allergy and Clinical Immunology, 2008, Kara L. McDonald, MS, Shamima I. Huq, BS

Summary: "Early childhood immunizations have been viewed as promoters of asthma development by stimulating a T(H)2-type immune response or decreasing microbial pressure, which shifts the balance between T(H)1 and T(H)2 immunity. Among 11, 531 children who received at least 4 doses of DPT, the risk of asthma

was reduced to (1/2) in children whose first dose of DPT was delayed by more than 2 months."

37. A CDC-SPONSORED DATABASE SHOWED MUCH HIGHER RATES OF NEURODEVELOPMENTAL DISABILITIES FROM MERCURY-CONTAINING VACCINES

Thimerosal exposure in infants and neurodevelopmental disorders: An assessment of computerized medical records in the Vaccine Safety Datalink <http://vaccinesafetycommission.org/pdfs/37-2008-Journal-Neuro-Young.pdf>
Journal of the Neurological Sciences, March 2008, Heather A. Young, David A. Geier, Mark R. Geier

Summary: "Consistent significantly increased rate ratios were observed for autism, autism spectrum disorders, tics, attention deficit disorder, and emotional disturbances with Hg exposure from TCVs. By contrast, none of the control outcomes had significantly increased rate ratios with Hg exposure from TCVs."

38. AUSTRALIAN SCIENTISTS DESCRIBE THE ROLE OF VACCINES IN TRIGGERING ACUTE DISSEMINATED ENCEPHALOMYELITIS ("ADEM")

Post-vaccination encephalomyelitis: Literature review and illustrative case <http://vaccinesafetycommission.org/pdfs/38-2008-Clinical-Neuro-ADEM.pdf>
Journal of Clinical Neuroscience, 2008, Huynh W1, Cordato DJ, Kehdi E, Masters LT, Dedousis C.

Summary: "Post-infectious and post-immunisation encephalomyelitis make up about three-quarters of cases, where the timing of a febrile event is associated with the onset of neurological disease..Post-vaccination Acute disseminated encephalomyelitis has been associated with several vaccines such as rabies, diphtheria-tetanus-polio, smallpox, measles, mumps, rubella, Japanese B encephalitis, pertussis, influenza, hepatitis B, and the Hog vaccine. We review ADEM with particular emphasis on vaccination as the precipitating factor."

39. THE MERCURY USED AS A VACCINE PRESERVATIVE IS FAR MORE NEUROTOXIC THAN THE MERCURY FOUND IN FISH

Comparison of Blood and Brain Mercury Levels in Infant Monkeys Exposed to Methylmercury or Vaccines Containing Thimerosal Environmental Health <http://vaccinesafetycommission.org/pdfs/39-2005-burbacher.pdf>
Perspectives, August 2005, Thomas M. Burbacher, Danny D. Shen, Noelle Liberato, Kimberly S. Grant, Elsa Cernichiari, and Thomas Clarkson

Summary: The mercury used in vaccines (and still in the flu vaccine given to pregnant women) is far more toxic than the mercury found in fish, because it stays in the brain at much higher levels. "Data from the present study support the prediction that, although little accumulation of Hg in the blood occurs over time with repeated vaccinations, accumulation of Hg in the brain of infants will occur. Thus, conclusion regarding the safety of thimerosal drawn from blood Hg clearance data in human infants receiving vaccines may not be valid, given the significantly slower half-life of Hg in the brain as observed in the infant macaques. There was a much higher

proportion of inorganic Hg in the brain of thimerosal monkeys than in the brains of MeHg monkeys (up to 71% vs. 10%). Absolute inorganic Hg concentrations in the brains of the thimerosal-exposed monkeys were approximately twice that of the MeHg monkeys."

40. VACCINE MERCURY DEPLETES A VITAL ANTIOXIDANT, GLUTATHIONE

Thimerosal Neurotoxicity is Associated with Glutathione Depletion: Protection with Glutathione Precursors

<http://vaccinesafetycommission.org/pdfs/40-2005-James-Glutathione.pdf>

Neurotoxicology, Jan 2005, S. Jill James, PhD

Summary: "Thimerosal is an antiseptic containing 49.5% ethyl mercury that has been used for years as a preservative in many infant vaccines and in flu vaccines. Environmental methyl mercury has been shown to be highly neurotoxic, especially to the developing brain. Because mercury has a high affinity for thiol (sulfhydryl (-SH)) groups, the thiol-containing antioxidant, glutathione (GSH), provides the major intracellular defense against mercury-induced neurotoxicity. Cultured neuroblastoma cells were found to have lower levels of GSH and increased sensitivity to thimerosal toxicity compared to glioblastoma cells that have higher basal levels of intracellular GSH. Thimerosal-induced cytotoxicity was associated with depletion of intracellular GSH in both cell lines. Although Thimerosal has been recently removed from most children's vaccines, it is still present in flu vaccines given to pregnant women, the elderly, and to children in developing countries."

41. SCIENTISTS IDENTIFY VACCINE MERCURY'S ROLE IN BLOCKING CRUCIAL NEURODEVELOPMENTAL PATHWAYS

Activation of methionine synthase by insulin-like growth factor-1 and dopamine: a target for neurodevelopmental toxins and thimerosal

<http://vaccinesafetycommission.org/pdfs/41-2004-Molecular-Deth.pdf>

Molecular Psychiatry, 2004, M Waly, H Oltaneu, R Banerjee, S-W Choi, JB Mason, BS Parker, S Sukumar, S Shim, A Sharma

Summary: "The ethylmercury-containing preservative thimerosal inhibited both IGF-1- and dopamine-stimulated methylation with an IC50 of 1nM and eliminated MS activity. Our findings outline a novel growth factor signaling pathway that regulates MS activity and thereby modulates methylation reactions, including DNA methylation. The potent inhibition of this pathway by ethanol, lead, mercury, aluminum and thimerosal suggest that it may be an important target of neurodevelopmental toxins."

42. UTAH STATE SCIENTISTS FIND AUTOIMMUNE REACTION TO MMR IN CHILDREN WITH AUTISM, INCLUDING AUTOIMMUNITY TO MYELIN BASIC PROTEIN, A BRAIN BUILDING-BLOCK

Abnormal Measles-Mumps-Rubella Antibodies and CNS Autoimmunity in Children with Autism

<http://vaccinesafetycommission.org/pdfs/42-2002-J-Biomed-Autism-MMR.pdf>

J Biomed Sci, 2002, Vijendra K. Singh Sheren X. Lin Elizabeth Newell Courtney Nelson

Summary: "And, as described herein, autistic children showed a serological correlation between MMR and brain autoimmunity, i.e., over 90% of MMR antibody-positive autistic sera also had autoantibodies to brain MBP. This is quite an intriguing observation in favor of a connection between atypical measles infection and autism; an atypical infection usually refers to infection that occurs in the absence of a rash. An atypical measles infection in the absence of a rash and unusual neurological symptoms was recently described to suggest the existence of a variant MV in children and adults [9]. In light of these new findings, we suggest that a considerable proportion of autistic cases may result from an atypical measles infection that does not produce a rash but causes neurological symptoms in some children. The source of this virus could be a variant MV or it could be the MMR vaccine."

43. FRENCH SCIENTISTS TIE ALUMINUM ADJUVANT IN VACCINE TO MACROPHAGIC MYOFASCIITIS

Macrophagic myofasciitis lesions assess long-term persistence of vaccine derived aluminum hydroxide in muscle

<http://vaccinesafetycommission.org/pdfs/43-2001-Brain-Macrophagic.pdf>

Brain, 2001 R.K. Gherardi, M. Coquet, P. Cherin, L. Belec, P. Moretto, P.A. Dreyfus

Summary: "Macrophagic myofasciitis (MMF) is an emerging condition of unknown cause, detected in patients with diffuse arthromyalgias and fatigue, and characterized by muscle infiltration by granular periodic acid-Schiff's reagent-positive macrophages and lymphocytes. Intracytoplasmic inclusions have been observed in macrophages of some patients. To assess their significance, electron microscopy was performed in 40 consecutive cases and chemical analysis was done by microanalysis and atomic absorption spectrometry. Inclusions were constantly detected and corresponded to aluminium hydroxide, an immunostimulatory compound frequently used as a vaccine adjuvant."

44. JAPANESE SCIENTISTS FIND VACCINE-STRAIN OF MEASLES IN THE GUTS OF CHILDREN WITH AUTISM

Detection and Sequencing of Measles Virus from Peripheral Mononuclear Cells from Patients with Inflammatory Bowel Disease and Autism

<http://vaccinesafetycommission.org/pdfs/44-2000-Japan-MMR.pdf>

Digestive Diseases and Sciences, 2000, Hisashi Kawashima, Takayuki Mori, Yasuyo Kashiwagi, Kouji Takekuma

Summary: "Additionally, a new syndrome has been reported in children with autism who exhibited developmental regression and gastrointestinal symptoms (autistic enterocolitis), in some cases soon after MMR vaccine. The sequences obtained from the patients with ulcerative colitis and children with autism were consistent with being vaccine strains. The results were concordant with the exposure history of the patients. Persistence of measles virus was confirmed in PBMC in some patients with chronic intestinal inflammation."

45. CDC SCIENTISTS ADMIT THAT 90% OF INFECTIOUS DISEASE MORTALITY DECREASE IN THE UNITED STATES HAPPENED BEFORE

VACCINES WERE AVAILABLE

Annual Summary of Vital Statistics: Trends in the Health of Americans During the 20th Century

<http://vaccinesafetycommission.org/pdfs/45-2000-Pediatrics-Vital-Statistics.pdf>

Pediatrics, December 2000, Bernard Guyer, MD, Mary Anne Freeman, MA, Donna M. Strobino, PhD, Edward J. Sondik, PhD

Summary: "Thus vaccination does not account for the impressive declines in mortality seen in the first half of the century...nearly 90% of the decline in infectious disease mortality among US children occurred before 1940, when few antibiotics or vaccine were available."

46. VACCINES WITH MERCURY SIGNIFICANTLY RAISED THE BODY LEVELS OF MERCURY IN INFANTS

Iatrogenic exposure to mercury after hepatitis B vaccination in preterm infants

<http://vaccinesafetycommission.org/pdfs/46-2000-Mercury-in-Blood.pdf>

The Journal of Pediatrics, May 2000, Gregory V. Stajich, PharmD, Gaylord P. Lope, PharmD, ABAT, Sokei W. Harry, MBBS, MPH, William R. Sexson, MD

Summary: "Thimerosal, a derivative of mercury, is used as a preservative in hepatitis B vaccines. We measured total mercury levels before and after the administration of this vaccine in 15 preterm and 5 term infants. Comparison of pre- and post-vaccination mercury levels showed a significant increase in both preterm and term infants after vaccination. Additionally, post-vaccination mercury levels were significantly higher in preterm infants as compared with term infants. Because mercury is known to be a potential neurotoxin to infants, further study of its pharmacodynamics is warranted."

47. UCLA RESEARCHERS FIND THE DTP VACCINE IS CAUSING ASTHMA

Effects of Diphtheria-Tetanus-Pertussis or Tetanus Vaccination on Allergies and Allergy-Related Respiratory Symptoms Among Children and Adolescents in the United States

<http://vaccinesafetycommission.org/pdfs/47-2000-UCLA-Asthma.pdf>

Journal of Manipulative and Physiological Therapeutics, 2000, Eric Hurwitz and Hal Morgenstern

Summary: "Asthma and other allergic hypersensitivity reactions and related symptoms may be caused, in part, by the delayed effects of DTP or tetanus vaccination. Because the proportion of US children who have received at least 1 dose of DTP vaccine approaches 100%, the number of allergies and allergy-related conditions attributable to DTP or tetanus vaccination in the United States may be very high. For example, assuming that the estimated vaccination effect is unbiased, 50% of diagnosed asthma cases (2.93 million) in US children and adolescents would be prevented if the DTP or tetanus vaccination was not administered."

48. INFANTS RECEIVING MERCURY-CONTAINING VACCINES DEVELOPED SPEECH DISORDERS, SLEEP DISORDERS, AND AUTISM,

ACCORDING TO CDC SCIENTISTS

Increased risk of developmental neurologic impairment after high exposure to thimerosal-containing vaccine in first month of life

<http://vaccinesafetycommission.org/pdfs/48-2000-Proceedings-Mercury.pdf>

Proceedings of the Epidemic Intelligence Service Annual Conference, April 2000, Verstraeten T, Davis RL, Gu D, DeStefano F.

Summary: "This analysis suggests that high exposure to ethylmercury from thimerosal-containing vaccines in the first month of life increases the risk of subsequent development of neurologic development impairment."

49. INFECTIOUS DISEASE RATES DECLINED PRECIPITOUSLY IN THE UNITED STATES IN THE 20TH CENTURY BEFORE THE IMPLEMENTATION OF A NATIONAL VACCINE PROGRAM

Trends in Infectious Disease Mortality in the United States During the 20th Century

<http://vaccinesafetycommission.org/pdfs/49-1999-JAMA-Trends-Disease.pdf>

JAMA, January 6, 1999, Gregory L. Armstrong, MD, Laura A. Conn, MPH, RobertW. Pinner, MD

Summary: "During the first 8 decades of the 20th century, the infectious disease mortality rate in the United States declined substantially...Improvements in living conditions, sanitation, and medical care probably accounted for this trend."

50. CDC SCIENTISTS FIND CHILDREN GIVEN THE MMR VACCINE SHED THE MEASLES VIRUS FOR AT LEAST 2 WEEKS AFTER GETTING THE VACCINE, MAKING THEM VECTORS TO SPREAD MEASLES

Detection of Measles Virus RNA in Urine Specimens from Vaccine Recipients

<http://vaccinesafetycommission.org/pdfs/50-1995-Measles-Antibodies.pdf>

Journal of Clinical Microbiology, Sept 1995, Paul A. Rota, Ali S. Khan, Edison Durigon, Thomas Yuron, and William Bellini

Summary: "For the study, daily urine samples were obtained from either 15-month-old children or young adults following measles immunization. Overall, measles virus RNA was detected in 10 of 12 children during the 2-week sampling period. In some cases, measles virus RNA was detected as early as 1 day or as late as 14 days after vaccination. Measles virus RNA was also detected in the urine samples from all four of the young adults between 1 and 13 days after vaccination. This assay will enable continued studies of the shedding and transmission of measles virus and, it is hoped, will provide a rapid means to identify measles infection, especially in mild or asymptomatic cases."