Facility Automation Management Engineering (FAME) Systems
33A Hoffman Avenue, Lake Hiawatha, NJ 07034-1922

Sunday, 31 July 2011

To The Reader:

Following this page is this reviewer's draft review of an article titled, "**The 'Baltimore Sun' Sinks Deep Into Anti-Vaccination Quicksand**", from: http://blogs.forbes.com/stevensalzberg/2011/07/17/the-baltimore-sun-sinks-deep-into-anti-vaccination-quicksand/ that this reviewer downloaded on 19 July 2011.

This review, titled "**Draft Review of: 'The 'Baltimore Sun' Sinks Deep Into Anti-Vaccination Quicksand'",** begins on the next page.

Introductory Remarks

First, to "simplify" this response, when portions of the article, which are quoted in a "Georgia" font, being evaluated are specifically addressed in this assessment, those portions will be quoted in an *italicized* "*Georgia*" font.

Second, after an initial assessment of the title, this reviewer's assessment follows each quoted portion of the article and is indented to clearly separate it from the preceding portion of the document that is being addressed.

Third, when other sources are quoted, the text will be in a "Times New Roman" font.

Finally, should anyone find any significant factual error for which they have independent[a], scientifically sound, peer-reviewed published substantiating documents, please submit that information to this reviewer so that he can improve his understanding of factual reality and, where appropriate, revise his views and this draft.

Respectfully,

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[a] To qualify, the study should be published by researchers who have no conflicts of interest from their ties to either those commercial entities who profit from the sale of vaccines or those entities, academic, commercial or governmental, who actively promote inoculation programs using vaccines.

Draft Review of:
"The 'Baltimore Sun' Sinks Deep Into Anti-Vaccination Quicksand"

As with most who seek to cast others' actions in a negative light under the guise of scholarly discourse, the author of the article being reviewed, operating under the banner of "*Fighting Pseudoscience*", begins with a sound-bite headline that paints a picture of a newspaper sinking into a false "quicksand" fabricated by this trained vaccine apologist and vaccination acolyte.

Obviously, facts do not seem to bother this writer.

Factually, Dr. Geier is anything but anti-vaccine and he has the credentials to prove it.

First of all, Dr. Geier has been an advocate for "safer" vaccines for decades.

He was instrumental in helping push the pharmaceutical, healthcare, and medical establishments into switching from the whole-cell pertussis vaccines to the less toxic and safer acellular pertussis vaccines[2,3].

In addition, he was a strong supporter of the switch from the oral live poliovirus vaccines to the inactivated poliovirus vaccines to prevent those who were inoculated with a polio vaccine from contracting paralytic polio and/or shedding live poliovirus that was giving others paralytic polio[4].

Further, in spite of the various contamination and other issues, he is a supporter for the continuation of the childhood polio-vaccination program[5].

However, *in this writer's alternate universe*, Dr. Geier must be anti-vaccine because he is currently trying to get those same parties to make vaccines safer by stopping: **a)** the manufacturers' use of Thimerosal, an exquisitely toxic[6] and unstable[7] form of organic mercury that is very soluble in water,

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2 Geier MR. Endotoxin in DPT vaccines. The committee to review the adverse consequences of pertussis and rubella vaccines. The Institute of Medicine of the National Academy of Sciences. Jan. 10, 1990.

3 Geier DA, Geier MR. The true story of pertussis vaccination: A sordid legacy? ***J Hist Med Allied Sci*** 2002; **57**: 249-284, which was awarded the 2003 "Stanley W. Jackson Prize" (which recognizes the best article published in the previous three years in the ***Journal of the History of Medicine and Allied Sciences***, a Duke University journal).

4 Any time you inoculate individuals with a live-virus vaccine, you are infecting them with that live virus and, for whatever period that the inoculated live virus is being shed, spreading that disease to others. This is true for all live-virus vaccines. Thus, injecting the MMR vaccine does not protect the inoculees from getting measles, mumps and rubella; it gives them an abnormal case of these three (3) diseases to cause those injected to develop antibodies, which will hopefully, for those who survive and emerge unscathed by these deliberate infections, provide limited-term protection to some significant percentage of those inoculated from contracting a "natural" or "wild" disease strain for the covered diseases. Based on its in-use performance, even the 2-dose program is an obvious failure for mumps but an apparent "success" for measles and rubella except for congenital rubella.

5 Geier MR, Geier DA. The state of polio vaccination in the world today: The case for continuing routine vaccination. ***Toxicology Mechanisms & Methods*** 2002; **12**: 221-228.

6 Thimerosal, sodium ethylmercurithiosalicylate, is a known human carcinogen, mutagen, teratogen, reproductive toxin, immune-system disruptor and bioaccumulative systemic mercury poison at levels below 1 ppm.

toxic to developing neurons at the 5 nanogram per gram level (0.00000005 %), as well as **b)** the use of any other mercury compound in any vaccine, other drug, or device.

By this writer's standard, Ralph Nader is anti-automobile simply because he dared to speak out about the need to make automobiles safer.

Similarly, *in this writer's alternate universe*, Dr. Delong is <u>not</u> a scientist and simply because her field of advanced education, study and teaching is economics.

"In recent weeks, the ***Baltimore Sun***, once an excellent newspaper, has dived headfirst into the pool of anti-vaccination pseudoscience."

Here, this writer is obviously seeking to further prejudice the discussion by announcing that the articles about which he will be stating his opinions are "*pseudoscience*".

"With two prominent opinion pieces, the ***Sun*** has given a platform to the anti-vaccine movement that they probably didn't expect, and that they certainly didn't deserve. The puzzle is, why? Who on the ***Sun***'s editorial board decided to offer their pages to the voices of fear and unreason?"

Not content to prejudice the reader into thinking that this writer is simply addressing "*anti-vaccination pseudoscience*", he now equates the two articles to the voice of some unspecified "*anti-vaccine movement*".

He does this in spite of the reality that the articles this writer is attacking are commentaries on two very different topics by two independent voices.

In fact, the two opinions to which this writer is referring are the educated views of two independent individuals.

One is a world-renown physician, geneticist, and PhD researcher.

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[7] As the chemist who filed the original patent observed, Thimerosal is unstable when dissolved in water or aqueous solutions like vaccine formulations. In a saline solution, it reacts with the components in solution to form a mixture of ethyl mercury hydroxide, a highly water-soluble hydrophilic compound that is rapidly dispersed into the aqueous environments throughout the body; ethyl mercury chloride, a lipophilic compound that disperses into the hydrophobic environments throughout the body and easily crosses the blood-brain "barrier"; and sodium thiosalicylate. This decomposition is driven by the oxidative conversion of two thiosalicylate anions into the corresponding disulfide.

Moreover, Thimerosal and its breakdown products have a high affinity for the thiol/sulfhydro (HS-R) groups on sulfur-containing proteins and amino acids.

In rat studies, using radiolabeled mercury, *no more than* about 15% of the doses administered were excreted by the animals tested in the first five days after dosing with the rest being bound up in the various tissues.

In comparative radiolabeled mercury studies on monkeys and rats, the doses were more uniformly distributed throughout the tissues in the monkey as compared to the rat where the doses were more localized in organs away from the brain.

Based on these and other studies, after a few days, 5 in the case of rats, all of the dosed mercury in the blood is found mainly in the red-blood cells as some form of cell-bound "inorganic" mercury, while measurable levels of dose-related ethyl mercury, methyl mercury, and "inorganic" mercury species are found in the various tissues studied (e.g., brain, heart, kidneys, liver, and muscle).

The other is a health professional with a vaccine-damaged family member.

Moreover, *apparently unlike this writer*, the two commenters actually have first-hand experience in dealing with the havoc and the carnage that neurodevelopmental disorders and other chronic diseases have inflicted and are inflicting on our children and, to a lesser degree, ourselves.

Further, *without any substantiation*, this writer proceeds to accuse the writers of the two commentaries to which he takes exception of being "*the voices of fear and unreason*".

After this introduction, this writer directs his attention to a ***Sun***-published opinion article written by Mark R. Geier, MD, PhD, ABMG Genetic Counselor, ACMG Founding Associate Member, ABFE Board Certified, ABFM Diplomat, ACE Fellow, and ACMG Fellow.

That article is simply titled, "**Autism doctor: My therapy is unconventional, but it works**".

Obviously, if Dr. Geier is correct in his hypothesizing that the primary causal factors for most all of today's neurodevelopmental, developmental and behavioral problems, and chronic disease and allergies are environmental with epigenetics being more important than genetics, this writer might have a lot to lose.

After all, "genetics" is apparently keeping this writer, Dr. Salzberg, employed[8].

If the principal causes are "environmental" factors, then there may <u>not</u> be as much funding for his "it's genetic" crowd, who are currently sucking up the lion's share of the funding as the Establishment vainly tries to prove the current chronic disease, developmental and behavioral epidemics that scientifically and logically <u>cannot</u> be genetic are nonetheless genetic.

Yet, this writer has the gall to claim that his views are unbiased simply because he personally has "*never received payments or gifts of any type from any drug or vaccine maker*".

Understanding the art of misdirection, this reviewer <u>cannot</u> help but wonder how much funding the institute and/or the university for which he works gets from "*any drug or vaccine maker*" or the National Science Foundation (NSF) or agencies overseen by the Department of Health and Human Services (DHHS).

Finally, before proceeding, this reviewer must congratulate this writer for his having mastered the "art" of Orwellian "Doublespeak".

Keeping the preceding realities in mind, this reviewer can now return to reviewing the other statements that this writer has made in this article that he "contributed" to ***Forbes Magazine***.

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[8] Steven Salzberg states that he is a "PhD" and "Professor of Medicine and Biostatistics in the Institute of Genetic Medicine at John Hopkins University's School of Medicine", who was taught about the "anti-vaccine movement" while working on a vaccine-related gene sequencing project.

"First, on June 16, the ***Sun*** printed an Opinion article by Mark Geier, where he argued that his unfounded theories about the causes of autism make it okay for him to chemically castrate young boys. (I know this sounds shocking, but it's all too true.)"

Having read the article by Dr. Geier, all he seems to be "arguing" for is that his therapies should be judged based on their performance and not judged based on unsubstantiated allegations, innuendo, and misrepresentations of the general approaches that all those who work with him use:

1. Gather an appropriate patient history, make baseline measurements, and generate prescriptions for the testing needed for a differential diagnostic work-up[9],
2. Based on the test results from the prescribed testing and their meanings, devise a diagnosis-based corrective-action plan with input from the affected person or, when he or she is a minor or a ward, the custodial parent or guardian,
3. Implement the treatment plan agreed to by the patient or parent or guardian in cooperation with the patient's primary care providers,
4. Monitor the patient's improvements and adjust the treatment plan as progress and circumstances dictate,
5. Readjust the treatment plan as the data from the patient, information from ASD-center-directed clinical studies[10,11], published papers by others, and experience dictate, and
6. When the patient no longer needs or is no longer benefiting from the services that the groups provides, turn the patient's care over to the patient's primary care providers.

Worse, this writer misrepresents Dr. Geier's published fact-supported and study-based hypotheses about the causal factors for the neurodevelopmental disorders in the autism spectrum as "*unfounded theories*".

Moreover, the actual androgens-reduction protocol that Dr. Geier uses is only intended to reduce the androgen levels in patients with elevated levels and risk factors to levels that are within their age- and sex- appropriate ranges. Yet, knowingly or unknowingly, this writer misrepresents Dr. Geier's androgen-reducing treatment as if it only uses Lupron®[12], when, in fact there are other

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[9] The ASD Centers' consultancies practice conventional diagnosis and screening techniques (which covers in-depth genetic screening to identify those who have valid gene-related issues, appropriate testing to cover all glands (thyroid, thymus, parathyroid, adrenals, pituitary, and reproductive), immune-system assessment, blood chemistry assessment, heavy metals toxicity assessment, kidneys, heart, liver, spleen, pancreas, etc.)

[10] Geier DA, Kern JK, Davis G, King PG, Adams JB, Young JL, Geier MR. A prospective double-blind, randomized clinical trial of Levocarntine to treat autism spectrum disorders. ***Med Sci Monit*** 2011; **17**(6):PI15-PI23.

[11] Kern JK, Geier DA, Adams JB, Garver CR, Audhya T, Geier MR. A clinical trial of glutathione supplementation in autism spectrum disorders. ***Med Sci Monit*** 2011; **17**(11) (in press).

[12] http://healthcare.zibb.com/trademark/lupron/29323822 "Lupron® is a registered trademark used for Pharmaceutical Preparation, Namely a Hormone Modifying Agent and owned by Abbott Laboratories."

Goods and/or Services:	Pharmaceutical Preparation, Namely a Hormone Modifying Agent

drugs that are used depending on the patient, the patient's age and sex, and the patient's response.

Factually, Dr. Geier's therapy is a multifaceted approach that treats the systems in the patient's body that are abnormal and can be treated with an appropriate therapy[13] — it is not "a one-trick pony".

In addition, this reviewer cannot help but ask this writer:

"Since both girls and boys are treated for precocious puberty by Dr. Geier, why are you fixating on the "*young boys*"?

How many neurodevelopmentally delayed children who are violent and destructive have you tried to help?

What, *if anything*, are you personally doing to help these children?"

"I wrote about Geier two years ago: he and his son David administer what they called the 'Lupron protocol' to autistic boys."

While this reviewer leaves it to the reader to judge for himself or herself the merits of this writer's previous article, this reviewer must again note that the "*Lupron protocol*" of which this writer speaks is also given to girls as well as to boys.

Factually, it is a viable treatment option when: **a)** patient's diagnostic work-up indicates a need for the reduction of one or more of the patient's androgen levels' set point to bring the child's hormone levels appropriately within their normal ranges and **b)** the patient meets the insurance criteria for Lupron use. Since, other than to misrepresent the use of Lupron as the "*chemical castration*" of boys, why does the writer repeatedly fail to mention that, when

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Serial Number:	73508670
Registration Number:	1357567
Filing Date:	Nov 13, 1984
Last Applicant(s)/ Owner(s) of Record	**Abbott Laboratories North Chicago, Il 60064 US**
Related Products:	Pharmaceuticals

[13] For those with treatable muscle weakness, incoordination, and mitochondrial dysfunction markers, sigma-tau Pharmaceuticals' Carnitor® is prescribed when appropriate as is supplementation with vitamin D-3, other vitamins and minerals, dietary supplements, and dietary restrictions, when and as such are appropriate.

For those with clinically significant levels of mercury toxicity (mercury body burden) as determined by a valid urine porphyrin profile analysis (UPPA) in a CLIA/ISO-certified laboratory, an appropriate, safe, non-intravenous chelation protocol that alternates chelation with mineral replacement over a period of weeks is used – followed, after a re-equilibration period by another UPPA to assess the patient's apparent change in mercury body burden.

For children who have food allergies and intolerances, the practice supports the use of an appropriate, nutritious, alternative diet to manage such issues.

Moreover, absent sound medical evidence and some clinical studies, his conservative practice does not prescribe or support the use of truly megadoses of vitamins, minerals and dietary substances.

Finally, it does support doses of vitamins and minerals higher than the "Daily Value", when there is clear evidence of a deficiency or a dose-related positive improvement in health and, in general, leaves the management of the patient's diet up to the patient or his parent or guardian.

medically appropriate, Lupron is used to treat elevated androgens in girls, especially when there is evidence that a qualifying patient is also suffering from subclinical mercury poisoning?

"They charge $5000-$6000 per month for their treatment, which is based on their belief that autism is caused by an excess of testosterone".

With respect to the writer's assertion "*[t]hey charge$5000-$6000 per month for their treatment*", this writer either does not understand how the health industry and a medical practice operates in the USA or he is being intentionally misleading.

First, *because the monthly cost is significant*, to prescribe Lupron, a physician must get pre-, and periodic re-, approval from the patient's insurance company.

Moreover, the physicians employed by the insurance companies will only give that approval based on laboratory tests and patient symptoms that fall within the insurance company's recognized guidelines for the IDC code condition for which the medication is proposed to be prescribed.

Then, when the insurance company approves the use of the drug, Dr. Geier prescribes the dose of the drug that the patient needs to be given to normalize the patient's androgen levels and charges a small fee to cover his overheads and make a small profit—part of which partially funds his research efforts.

The cost to the patient is then determined by the drug's manufacturer, drug distributor, dispensing pharmacy or formulary and the insurance plan and that amount is billed with the patient picking up the co-pay and the insurance plan paying the rest to the direct dispenser who then, in turn, pays the distributor what he charged and the distributor, in turn, pays the manufacturer, which for Lupron® is Abbott, what the distributor was charged.

Thus, in general, Dr. Geier's prescribing the use of Lupron is approved by the patient's insurance provider based on the patient's meeting the insurance company's lab-result- and diagnostic- based criteria for prescribing that drug.

Therefore, the monthly cost (whatever it is, for a month's worth of Lupron for a qualifying child) is based on the child's having the appropriate clinical conditions and symptoms that compel the insurance company to pay the bulk of the patient's monthly costs.

Moreover, the second part of this sentence, "*which is based on their belief that autism is caused by an excess of testosterone*", is a whole cloth fabrication.

First of all, Dr. Geier prescribes Lupron (or one of the other of the safer androgen lowering and/or blocking drugs) to children based on their having abnormally high levels and/or profiles for the androgen hormones and clinical symptoms that the insurance companies will accept as sufficient for company to approve the use of Lupron therapy (or the use of some other another androgen-lowering and/or androgen suppressing drug) for the patient.

Second, Dr. Geier does not think, much less believe, that any of the disorders

in the set of autism spectrum disorders (ASDs) is caused by elevated androgens.

Instead, elevated androgens are but one biological outcome of the underlying causal factors, like subclinical mercury poisoning, in those with a valid ASD diagnosis.

Factually, medical science knows that elevated androgens increase aggressive and injurious behaviors[14] and that elevation of testosterone decreases the production of glutathione[15], the body's principle intracellular detoxification biochemical.

"Lupron, the drug they give to children, is a testosterone-suppressing drug that is the chemical equivalent of castration."

Here, the writer again misrepresents factual reality.

First, the protocol is only used by Dr. Geier to reduce the qualified patient's androgens' levels to the low end of the age- and sex- specific normal ranges for those androgens.

Thus, *in terms of testosterone*, this treatment protocol is <u>not</u> "*the chemical equivalent of castration*" but rather simply drug-induced "testosterone-level reduction".

Moreover, does this writer really think that lowering a 10-year-old girl's androgens so that she stops having painful, heavy periods which, if unchecked, will shorten her stature and lead to premature menopause, is "*chemically castrating*" her rather than normalizing her hormonal levels?

Since this writer claims to be a scientist, this reviewer, who is a scientist, finds it odd that the writer has apparently either failed to understand or is deliberately ignoring the facts about, how, when and why the "*Lupron protocol*" developed by Dr. Geier is actually being used or, the reality that the appropriate use of this protocol helps these children to focus, recover, and learn.

Obviously, this writer, who apparently has done <u>no</u> research into diagnosis and medical treatment of neurodevelopmentally injured/delayed children and is <u>not</u> involved in the diagnosis and medical treatment of such children, does <u>not</u> understand how destructive these untreated hyperandrogenous children can be to their surroundings, themselves and others when they lose control.

Finally, Lupron is the Abbot-registered trade name for a synthetic analog of the natural human gonadotropin-releasing hormone (hGnRH), leuprolide acetate, which has a long history of relatively few side effects and a low incidence for these side effects.

"It is a harsh treatment used to treat advanced prostate cancer."

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[14] Kanne SM, Mazurek MO. Aggression in Children and Adolescents with ASD: Prevalence and Risk Factors. ***J Autism Dev Disord***. 2011 Jul; **41**(7): 926-937.

[15] Geier DA, Kern JK, Geier MR. The biological basis of autism spectrum disorders: understanding causation and treatment by clinical geneticists. ***Acta Neurobiol Exp (Wars)*** 2010; **70**: 209-226.

Here, the writer's statement is a clear distortion of reality.

Factually, Lupron is the Abbott Laboratories' trade name for a well-characterized off-patent drug, generically known as leuprolide acetate, that has been marketed for decades and this drug's side effects in most treated with it are well understood and range from uncommon to very rare.

It, along with other similar drugs, some other steroid analogs, and a few other drugs, is used to treat advanced testosterone-sensitive prostate cancer after physical castration because physical castration does not stop the production of testosterone by the human body.

Moreover, in addition to prolonging the lives of men with advanced prostatic cancer, Lupron has an FDA-approved indication for use in the normalization of androgen levels in children with central precocious puberty.

Lupron is also used to help certain infertile women, who have elevated androgen levels, to conceive when they have trouble doing so naturally.

Furthermore, Lupron is used in the treatment of breast cancer, ovarian cancer, endometrial cancer, leiomyomata uteri (uterine fibroids), hirsutism (excessive hairiness), and benign prostatic hyperplasia (enlarged prostate gland).

The reality that Lupron is a safe drug is so well recognized that, in a consensus review published in ***Pediatrics*** in 2009, its authors reported:

> "GnRHas are generally well tolerated in children and adolescents. Systemic complaints such as headaches or hot flashes occur occasionally but are usually short-term and do not interfere with therapy. Local adverse events occur in ≤ 10% to 15% of patients and necessitate a change in agent when persistent, because they can result in sterile abscesses in a fraction of the patients.[54,55,59] Although exceedingly rare, anaphylaxis has been described"[16].

Because Lupron is a drug product that, although rare, may have unacceptable side effects in some patients, Dr. Geier's protocol begins with a test dose to check for such; and the patient or the patient's parent or guardian is apprised of the drug's side effects.

"There is no evidence that it helps autistic boys."

Again, this writer is both mistaken and misleading the reader.

First, this writer is wrong because there is a large and increasing body of evidence that Lupron therapy helps the segment of "*autistic boys*" who have elevated androgen levels and are aggressive, violent and unfocused to lose their anger and aggression and become much more focused and teachable.

Second, this writer is misleading because Lupron therapy is similarly successful in helping aggressive, violent and unfocused "*autistic*" girls who have elevated levels of androgen.

In addition to lowering the androgen levels of the treated children into the

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[16] Carel J-C, Eugster EA, Rogol A, Ghizzoni L, Palmert MR. Consensus Statement on the Use of Gonadotropin-Releasing Hormone Analogs in Children. ***Pediatrics*** 2009; **123**: e752-e762.

lower end of their normal age- and sex- appropriate ranges, Lupron therapy has the side effect of raising the level of intracellular glutathione in these children, which reduces their oxidative stress levels and improves their detoxification of heavy metals, pesticides and some other noxious chemicals.

Furthermore, doctors outside of Dr. Geier's ASD Centers' clinics who are similarly using Lupron therapy are reporting similar improvements in behavior and renormalization of those children's abnormal sexual development.

Finally, in a recent article[17] assessing aggression in children and adolescents, the researchers reported (emphasis added):

> "The prevalence of and risk factors for aggression were examined in 1,380 children and adolescents with autism spectrum disorders (ASD). Prevalence was high, with parents reporting that 68% had demonstrated aggression to a caregiver and 49% to non-caregivers. Overall, aggression was not associated with clinician observed severity of ASD symptoms, intellectual functioning, gender, marital status, parental educational level, or aspects of communication. ... Given the significant impact of aggression on individual and family outcomes, it is hoped that this knowledge will inform more targeted intervention efforts".

Dr. Geier's treatment protocol provides one such "more targeted intervention" for the aggression about which these researchers are speaking – an appropriately targeted intervention that effectively suppresses aggression in those patients that qualify for that part of Dr. Geier's treatment options and are approved by their insurance plans to be given patient-appropriate doses of Lupron.

When the *Chicago Tribune* interviewed Simon Baron-Cohen, a professor and director of the Autism Research Center at Cambridge University, here was his reaction:

> "The idea of using it [Lupron] with vulnerable children with autism, who do not have a life-threatening disease and pose no danger to anyone, without a careful trial to determine the unwanted side effects or indeed any benefits, fills me with horror."

First, since Simon Baron-Cohen, who is a psychologist and not a physician, did not review the case histories of the children being treated by Dr. Geier before offering his opinion, this reviewer would only ask what were his motives for giving an opinion on a subject about which his opinion clearly indicates he has no personal knowledge and little in-depth understanding?

Moreover, Baron-Cohen's "*who ... pose no danger to anyone*" clearly reveals that this professor has never dealt with the children who qualify for Dr Geier's Lupron therapy because their, at times, aggressive and violent behaviors do generally pose a danger to themselves and/or to those around them.

In a few cases, some of these untreated "children" have killed their parents.

Further, because Lupron is an approved drug with an FDA-approved indication for treating children with elevated androgen levels, the manufacturer has already conducted the trial of which this professor speaks, "*a careful trial to*

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[17] Kanne SM, Mazurek MO. Aggression in Children and Adolescents with ASD: Prevalence and Risk Factors. ***J Autism Dev Disord***. 2011 Jul; **41**(7): 926-937.

determine the unwanted side effects or indeed any benefits" as well as additional safety and effectiveness trials.

Therefore, there is no need for Dr. Geier to also conduct such clinical trials.

Thus, Baron-Cohen, a British psychologist, not a licensed physician, is filled with horror because he is apparently ignorant of the approved indications for Lupron or that the children Dr. Geier was treating at that time were being treated for an insurance-company-approved indication for the use of Lupron.

Also, in a 2005 article[18], in which Baron-Cohen is the lead author, the paper stated: "Androgens, including testosterone produced by the testes in fetal and neonatal life, act on the brain to produce sex differences in neural structure and function" under the heading, "**Prenatal Androgens Produce Sex Differences in Brain and Behavior**".

In addition, in asserting that fetal testosterone (and, by extension, testosterone) may play a role in autism, these researchers also reported:

"**There is precocious puberty in boys with autism**" (emphasis added).

In a more recent (2007) article[19], in which Baron-Cohen is the second of the four authors and elevated levels of testosterone in women with autism spectrum conditions (ASC) are addressed, the paper concluded (emphasis added):

> "Compared to controls, significantly more women with ASC reported (a) hirsutism, (b) bisexuality or asexuality, (c) irregular menstrual cycle, (d) dysmenorrhea, (e) polycystic ovary syndrome, (f) severe acne, (g) epilepsy, (h) tomboyism, and (i) family history of …, tumors, or growths. Compared to controls, significantly more mothers of ASC children reported (a) severe acne, (b) breast and uterine cancers, tumors, or growths, and (c) family history of ovarian and uterine cancers, tumors, or growths. These results suggest current hormone abnormalities in women with ASC and their mothers".

Since: **a)** Baron-Cohen accepts that precocious puberty occurs in male children ("boys") with autism, and elevated levels of testosterone and other hormone abnormalities occur "in boys with autism" as well as "in women with ASC" and **b)** Lupron therapy is a recognized therapy that benefits children with precocious puberty, either the quotation attributed to Baron-Cohen is something he never said or, *if he really did make the remarks attributed to him*, the quotation clearly establishes that, *as a PhD psychologist and not a licensed physician (MD, DO, etc.)*, he is unqualified to address this medical issue and, therefore, his remarks should simply be ignored by the reader.

"Finally, after Geier had spent many years of selling his quack treatment to vulnerable families, the state of Maryland suspected his medical license suspected in April."

Since his "*treatment*" uses an FDA-approved indication for the use of Lupron in

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[18] Baron-Cohen S, Knickmeyer RC, Belmonte MK. Sex Differences in the Brain: Implications for Explaining Autism. ***Science*** 2005 Nov 4; **310**: 819-823.

[19] Ingudomnukul E, Baron-Cohen S, Wheelwright S, Knickmeyer R. Elevated rates of testosterone-related disorders in women with autism spectrum conditions. ***Horm Behav***. 2007 May; **51**(5): 597-604.

children, and the insurance companies and their doctors have, as set forth previously in some detail, pre-approved Dr. Geier's treatment, the treatment cannot be a "*quack treatment*" because it prescribes an FDA-approved drug product for an insurance-company-physicians'-pre-approved use.

Moreover, Dr. Geier: **a)** has only been discussing his treatment approach for lowering androgens in those violent children who also have a diagnosed developmental disorder, and its basis, with the medical community and parents for a few years (since late-2004), **b)** has been researching the subject since 2004, and **c)** has, starting in 2005, published at least eight articles in a peer-reviewed journal, written a chapter in a book appropriately titled, "**Cutting-Edge Therapies for Autism 2011-2012**", and presented his approach in an international symposium[20].

These have addressed some aspect of the issue of elevated androgens and their link to problematic behaviors in some children who also have diagnosed neurodevelopmental deficits including those in the autism spectrum.

Factually, Dr. Geier has only offered this treatment to patients since November 2004, after researching the androgens issue and filing an appropriate patent in an effort to ensure that his protocol was not misused.

With respect to this writer's "*the state of Maryland suspected his medical license suspected in April*", this reviewer:

- **a.** Hopes that this writer meant to write, "suspended",
- **b.** Notes that the actions by certain administrators within the State of Maryland have apparently violated Dr. Geier's due-process rights,
- **c.** Sees that Dr. Geier is vigorously opposing the actions taken against his license to practice medicine in Maryland in the administrative processes available to him and is looking for a favorable outcome and

[20]
- **a.** Geier MR, Geier DA. The potential importance of steroids in the treatment of autistic spectrum disorders and other disorders involving mercury toxicity. ***Med Hypotheses*** 2005; **64**: 946-954.
- **b.** Arranga E, Geier MR, Geier DA, Small T. Interview with Dr. Mark Geier and David Geier concerning Thimerosal, testosterone, and autism treatment hypothesis. ***Medical Veritas*** 2005; **2**: 465-471.
- **c.** Geier MR, Geier DA. The role of androgens and the methionine cycle-transsulfuration pathway in understanding and treating autism: a new paradigm. Autoimmunity Reviews, Abstracts of 5th International Congress on Autoimmunity, Sorrento, Italy, November 29 – December 3, 2006, pg 71.
- **d.** Geier DA, Geier MR. A clinical trial of combined anti-androgen and anti-heavy metal therapy in autistic disorders. ***Neuro Endocrinol Lett*** 2006; **27**: 833-838.
- **e.** Geier DA, Geier MR. A prospective assessment of androgen levels in patients with autistic spectrum disorders: biochemical underpinnings and suggested therapies. ***Neuro Endocrinol Lett*** 2007; **28**: 565-573.
- **f.** Geier DA, Young HA, Geier MR. Thimerosal exposure and increasing trends of premature puberty in the Vaccine Safety Datalink. ***Indian J Med Res*** 2010; **131**: 500-507.
- **g.** Geier DA, Kern JK, Geier MR. The biological basis of autism spectrum disorders: understanding causation and treatment by clinical geneticists. ***Acta Neurobiol Exp (Wars)*** 2010; **70**: 209-226.
- **h.** Kern JK, Geier DA, Adams JB, Geier MR. A biomarker of mercury body-burden correlated with diagnostic domain specific clinical symptoms of autism spectrum disorder. **Biometals** 2010; **23**: 1043-1051.
- **i.** Geier DA, Sykes LK, Geier MR. Chapter 23 – Elevated male hormones: their role and treatment in autism spectrum disorders. In: **Cutting-Edge Therapies for Autism 2011-2012**. Siri K, Lyons T (eds). New York, NY: Skyhorse Publishing, 2011, pgs 139-45.
- **j.**. Geier DA, Sykes LK, Geier MR. The role and treatment of elevated male hormones in autism spectrum disorders. ***Autism Science Digest: The Journal of AutismOne*** 2011, **Issue 1**, pgs 70-75.

apology from the state board while contemplating formal legal action to have the courts compel the state to restore his license and compensate him for his legal costs as well as for the damages to his business and his reputation by the apparently false allegations made by the administrators who ignored Dr. Geier's due-process rights,

d. Presumes that Dr. Geier is innocent of the charges made against him, and

e. Understands the reality that this move is an attempt to punish Dr. Geier for speaking out against those public health officials in the government, medicine, and healthcare, who support the continued addition of Thimerosal without toxicological proof of safety to those who are susceptible to being mercury poisoned.

In addition, this reviewer notes that CoMeD, Inc., the Coalition for Mercury-free Drugs, of which Dr. Geier and this reviewer are one of the co-founders and which is a 501(c)(3) corporation and UN-recognized NGO, has helped broaden the proposed draft of the UN treaty on restricting mercury use to include language in a newly added "Annex C (Mercury-added product not allowed)" that would ban the use of mercury or mercury compounds in the manufacture of soaps, cosmetics, paints, pesticides, topical antiseptics, and pharmaceutical products, including vaccines.

"Now, for reasons I cannot fathom, the ***Baltimore Sun*** has given him a huge billboard to ask for his license back so he can resume his discredited Lupron protocol."

Apparently, this writer either has problems reading or does not understand the regulation of the practice of medicine.

Seemingly, the State of Maryland has suspended Dr. Geier's medical license in a manner that may have flagrantly violated his due-process rights, an issue that is currently being addressed in the administrative process provided for contesting such actions.

Perhaps, the ***Baltimore Sun*** was just trying to be fair to its Maryland readers by allowing Dr. Geier an opportunity to respond to the many prior published misrepresentations about his practice.

Again, since the doctors for the insurance companies have been pre-approving the use of Dr. Geier's protocol, it is clearly not a "*discredited Lupron protocol*"[21].

Finally, for those who are interested in some factual reporting about Dr. Geier,

this reviewer recommends that they should read the ***Bolen Report***, http://www.bolenreport.com/, "the archive for the infamous "Millions of Health Freedom Fighters - Newsletter," Health Care Crisis Management Consultant, and Consumer Activist, Tim Bolen's RUTHLESS, but humorous, analysis of North America's Health Care System".

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[21] For expensive treatments, insurance companies are known for using any available pretext to avoid paying for such. Since, however reluctantly, insurance companies are pre-approving the use of Lupron for Dr. Geier's qualifying patients, the protocol being used must be a medically recognized protocol.

In that newsletter, Tim Bolen's July 16, 2011 article addresses the issues in, status of, and reasons for the Maryland's actions with regard to Dr. Geier[22].

"(Geier also claims that mercury in vaccines causes the rise in testosterone levels that he claims to treat. He ignores the overwhelming evidence, re-affirmed again last year, that there is no link between mercury-containing vaccines and autism.)

First, contrary to this writer's unsubstantiated claims, Dr. Geier and other researchers in the USA and other countries (e.g., Australia, Poland, Peru, and France) have established, in peer-reviewed publications, that Thimerosal exposure by injection at vaccine levels causes sub-clinical mercury poisoning in developing neonates and that that sub-clinical mercury poisoning, in turn, produces symptoms like those that are used to diagnose autism.

In addition, as the ten published studies collectively indicate, some children who have a diagnosed autism or another related neurodevelopmental disorder have elevated androgens, including testosterone, that are outside of the established/recognized age- and sex- specific normal ranges.

Finally, Dr. Geier's research has proven that his androgen-reducing therapies not only lower the treated patients' androgens but also reduces the level of their aggression and increases their:

1. Ability to appropriately interact with others,
2. Ability to focus and learn, and
3. Glutathione levels (which tends, over time, to lower their mercury body burden), as well as

allows these patients to form more-societally-appropriate social bonds with other people with whom they interact.

With respect to this writer's unsubstantiated claim concerning "*overwhelming evidence, re-affirmed again last year*", all that the studies on which this writer apparently relies actually do is assert that these studies found a less than statistically significant probability of a link between the level of mercury exposure from Thimerosal-preserved vaccines and the neurodevelopmental labels of "autistic disorder" or "autism spectrum disorder".

Because these studies are retrospective epidemiological (statistical) studies, they cannot prove there is, or is not, a link between the timing and level of Thimerosal exposure from Thimerosal-preserved vaccines and the subsequent onset of any medical condition.

All any such statistical study can do is estimate the probability that some action (i.e., vaccination with a Thimerosal-preserved vaccine) has resulted in some subsequent reaction (i.e., neurodevelopmental harm) at some level of confidence.

Moreover, for each published study that the U.S. CDC (Centers for Disease Control and Prevention) or some other U.S. governmental agency and/or the vaccine manufacturers have funded, overseen, and/or conducted, there are 2

[22] See: http://www.bolenreport.com/Geier/GeierUpdate2.htm.

to 10 or more independent studies, depending on the study type, using epidemiology; case reports; case-control studies; animal studies in monkeys, pigs, rats, mice golden hamsters, ducks, pheasants, chickens, and rabbits; in vitro studies using harvested notochord, skin and neuron samples, and developing neuron, astrocyte and fetal-cell cultures; and post-mortem brain studies, all of which have unequivocally linked poisoning by mercury, including vaccine mercury (Thimerosal and its "mercury-containing metabolites") to adverse neuronal outcomes[23].

"This wasn't enough bad science for the ***Sun***, which just a few weeks later published another Opinion piece, this one by anti-vaccine activist Margaret Dunkle."

This writer certainly has a penchant for labeling individuals as "*anti-vaccine*".

Unfortunately, as Ms. Dunkle's disclosure statement in her opinion piece, "**We don't know enough about childhood vaccines** Researcher asks: Are 36 doses of vaccine by age 2 too much, too little, or just right?", indicates, "*She also has a family member who is vaccine-injured*".

Thus, Ms. Dunkle is a vaccine activist and she is questioning the safety of the current vaccination program for children from birth to 2 years of age.

However, if she were truly "*anti-vaccine*", she probably would not have a vaccine-injured family member.

Moreover, how can it be "*bad science*" for Ms. Dunkle to ask that there be more proof of safety for each vaccine and the overall vaccination program?

"In her article, Dunkle claims that the vaccine schedule includes too many doses, and she further claims that these are harmful to children. This "too many, too soon" argument[t] is a constant refrain of the anti-vax movement (particularly Jenny McCarthy), despite the lack of science to support it."

Apparently, this writer has not read the linked article that this reviewer did, or is attempting to intentionally mislead the reader.

All Ms. Dunkle's article did was to ask questions and present information from a variety of sources, including the CDC.

Moreover, nowhere did she explicitly raise the "*too soon*" issue of timing or affirmatively assert that the current number of vaccines is "*too many*".

As her closing statement, "The ongoing debate about vaccines and their safety needs to incorporate these basic facts as our country seeks to answer the critical Goldilocks question: Too many? Too few? Or just right?", clearly establishes, her article simply questions the number of vaccine doses in the current CDC-recommended vaccination for young children because whole-vaccination-program studies have not been conducted and the "with another vaccine" studies are limited because they

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[23] See, for example: Geier DA, King PG, Sykes LK, Geier MR. A comprehensive review of mercury provoked autism. ***Indian J Med Res*** 2008; **128**: 383-411 for the citations for many of those autism-related studies that were published through the end of 2007 and into 2008.

only check a few of the other vaccines that could be given concomitantly and even those studies are of limited duration.

Thus, this writer's statements here are seeming distortions of Ms. Dunkle's article made by a person who is attempting to twist Ms. Dunkle's views to support his view that her commentary is explicitly "*anti-vaccination*".

'The evidence on her side: a new study published by Gayle Delong, claiming that autism rates and vaccination rates are linked[24].

While Ms. Dunkle's commentary states: "A new **Journal of Toxicology and Environmental Health** study reports that the higher the proportion of infants and toddlers receiving recommended vaccines, the higher the state's rate of children diagnosed with autism or speech-language problems just a few years later", it presents this information as, "[t]his analysis is sure to rekindle the debate about vaccine safety", clearly indicating that: **a)** vaccine/vaccination safety is her issue and **b)** she is not an "*anti-vaccine activist*" any more than vehicle-safety activist Ralph Nader was/is an anti-vehicle activist.

In addition, all that Ms. Dunkle was stating is the reality that this new article would surely "rekindle the debate about vaccine safety", which, along with a few other recent articles, it probably did do.

"Who is Gayle Delong? It turns out she is an economist, not a scientist, and she's a board member of SafeMinds, a well-known anti-vaccination group."

Abandoning his attack on Ms. Dunkle's article, the writer pivots to attack Dr. Delong, the author of the study to which Ms. Dunkle was referring.

First, the writer asks who "*Gayle Delong*" is, and then answers his own question with a statement that begins with a fact, "*she is an economist*", but then attempts to denigrate her qualifications by asserting that Dr. Delong is "*not a scientist*".

Factually, Dr. Delong is a PhD Economist and an Associate Professor at a New York City university.

Since economics is a recognized branch of knowledge or study, which is concerned with establishing and systematizing facts, principles, and methods using hypotheses and statistical analyses to describe various aspects of the economy, economics is a science.

Furthermore, to the extent that the practitioner of the study of economics gathers data and uses the scientific method to analyze that data, as Dr. Delong did in her peer-reviewed published article (see **Footnote 24**), that person is obviously as much a scientist as this writer and this reviewer are.

Briefly returning to the factual mode, this writer then states, "*she's a board member of SafeMinds*", which he then immediately denigrates with the modifier "*a well-known anti-vaccination group*" – even though SafeMinds claims, and acts

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[24] Delong G. A positive association found between autism prevalence and childhood vaccination uptake across the U.S. population. ***J Toxicol Environ Health A***. 2011 Jan; **74**(14): 903-16.

like, it is a vaccine-safety group.

Rather than attacking the cited paper, this writer attacks the credentials of the author of a study that Ms. Dunkle only briefly mentioned in her commentary.

"Delong's study has already been thoroughly debunked by Neuroskeptic, Sullivan, Liz Ditz, and others, who pointed out its deeply flawed statistics and other problems."

As those apologists for and acolytes of vaccines and vaccination do concerning the articles that this reviewer publishes on his web site: http://www.dr-king.com, this reviewer notes that none of these "debunkings" of Dr. Delong's peer-reviewed published study have appeared in a peer-reviewed journal.

In addition, this reviewer notes that Dr. Delong's findings concerning the number of vaccines seems to be indirectly supported by the findings in another recent paper[25], which, *in the developed nations having a sufficiently large number of children born annually*, addresses the related issue of the positive correlation between a nation's infant mortality and the number "doses" of a given country's recommended childhood vaccines.

Finally, there are other studies that show adverse effects linking a single "birth to 1 month" dose of hepatitis B to a many-fold increase the risk of autism in boys[26,27] as well as a primate study showing significant developmental delay in short-lived primate neonates[28].

Thus, it seems that Dr. Delong's findings are adequately supported by the findings in other peer-reviewed articles published by independent researchers, that is, researchers whose studies, position, or workplace is not funded, overseen or directly influenced by the U.S. CDC, U.S. FDA (Food and Drug Administration), U.S. NIH (National Institutes of Health), the U.S. DHHS (Department of Health and Human Services), the vaccine makers, or other pharmaceutical or pharmaceutical-front groups.

"Dunkle, though, was happy to jump on this junk science and ignore the real science."

Here, this writer intentionally misrepresents the appropriate citation of a very recent peer-reviewed published study that, because of its findings, "is sure to rekindle the debate about vaccine safety" as "*junk science*" simply because apparently he and several of his fellow vaccine apologists do not like the study.

Moreover, since the purpose of Ms. Dunkle's commentary was to simply note that scientifically sound and appropriate vaccination-program safety studies

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[25] Miller NZ, Goldman GS. Infant mortality rates regressed against number of vaccine doses routinely given: Is there a biochemical or synergistic toxicity? ***Hum Exp Toxicol*** published online 4 May 2011. DOI: 10.1177/0960327111407644.

[26] Gallagher CM, Goodman MS. Hepatitis B Vaccination of Male Neonates and Autism Diagnosis, NHIS 1997–2002, J Toxicol & Environm Health, Part A 2010; **73**(24): 1665-1677.

[27] Gallagher CM, Goodman MS. Hepatitis B triple series vaccine and developmental disability in US children aged 1–9 years Toxicol & Environm Chem 2008; 90(5): 997-1008.

[28] Hewitson L, Houser LA, Stott C, Sackett G, Tomko JL, Atwood D, Blue L, White ER. Delayed acquisition of neonatal reflexes in newborn primates receiving a thimerosal-containing hepatitis B vaccine: influence of gestational age and birth weight. ***J Toxicol Environ Health A***. 2010; 73(19): 1298-1313.

are needed so that scientifically valid answers can be found to her number of vaccines question, "Too many? Too few? Or just right?", this writer is obviously disingenuously misportraying Ms. Dunkle statements when he adds, "*and ignore the real science*".

"The real science tells just the opposite tale. For example, a thorough review published in *Pediatrics* in 2002 showed that infants today are exposed to fewer antigens than they were 40 years ago, due to better vaccine formulations. It also found that vaccines 'prevent the weakening of the immune system.'"

Here, this reviewer notes that the cited article has little or nothing to do with Ms. Dunkle's questions and concerns about whether the current vaccines are safe when given together or whether the overall vaccination program is safe.

Moreover, the review article to which this writer links is an article titled "**Addressing Parents' Concerns: Do Multiple Vaccines Overwhelm or Weaken the Infant's Immune System?**".

As this writer notes, it was published in 2002 in ***Pediatrics***, an admittedly pro-vaccine journal strongly funded by the pharmaceutical industry and the official journal of the American Academy of Pediatrics.

Since the lead author is a highly compensated vaccine developer and vaccine apologist who has been cited by Congress for being less than forthright, has repeatedly failed to fully disclose his conflicts of interest, has repeatedly claimed that a child can be safely exposed to thousands to a hundred thousand "vaccines", and proclaims himself an expert on "autism" though he does not treat children who have diagnoses in the "autism" spectrum, this article is obviously intended to be more propaganda than science.

Of course, the article asserts that all is well in "vaccine land".

What else would you expect in a journal funded by the vaccine companies and the official organ for pediatricians, who, in most practices, derive about half of their income from vaccine-related activities?

Moreover, though the questions and the answers are cleverly framed, this reviewer finds that the answers provided did not even mesh with our understanding of the immune system and vaccine protection in 2002 and, in 2011, the answers appear to be even further removed from factual reality.

That this article is pro-vaccine propaganda can easily be seen when the word "immunity" is included in the article's "**Key Words**" list ("multiple vaccines immunity parental concerns").

Actually, "immunity" is something that no vaccine can generally provide unless the vaccine is a live-virus vaccine with which the public is infected in the same broad manner and to the same degree as the native/wild disease and the immune systems of those so inoculated fully resolve the viral infection that they experience.

Of course, the vaccines that meet the preceding criteria actually infect those inoculated with such vaccines and some with whom those inoculees interact.

Though the claim is that the vaccine-induced disease is milder than the wild/natural disease, there are no double-blind studies on volunteers where, at random, healthy susceptible individuals are inoculated with either the vaccine strain(s) or the wild/native strain(s) and the outcomes are carefully monitored.

Moreover, the only vaccines in the current CDC-recommended vaccination program that seems to meet the preceding criteria are the two FDA-approved live-virus rotavirus vaccines.

Though the difference in the rate of severe adverse reaction, intussusception, was not statistically significant in the Phase III clinical trials for these two rotavirus vaccines because the population size was too small, the reality was that the rate of intussusception in the vaccine inoculated children was 3 to 4 times higher than in the control group.

Since the majority of the individuals in both groups apparently were living in conditions where everyone was at some significant risk of disease exposure, it would seem that the vaccine may not have been, as it should have been, significantly safer than the natural/wild disease.

In any case, immunity provided by infecting people with the disease factually does not protect them from contracting that disease because that inoculation infected them with that disease – all such inoculations may do is to protect those, who infected by inoculation with them, from getting that disease again.

In addition, this reviewer is compelled to ask:

> "Is a 2002 article the best you can do in a world where, among other things, the following have subsequently been added to the CDC's recommended childhood vaccination schedule:
>
> **a.** 2 Tdap vaccines and 1 added childhood dose of one of them,
> **b.** 2 Live-virus rotavirus vaccines with up to 5 intentional antigens and who knows how many others and 2 or 3 added doses, depending on which vaccine is given,
> **c.** 2 HPV vaccines with 2 or 4 intentional and several other unintentional antigens and 3 added doses,
> **d.** Another meningococcal vaccine and 1-2 more doses,
> **e.** Many more (18 or more) added flu-vaccine doses, and
> **f.** 2 added doses of a hepatitis A vaccine[29]?"

Hopefully, given the preceding additions in a 10-year period, even this writer may be able to see that Ms. Dunkle's questions deserve to be addressed.

"Countless other articles have shown the efficacy of vaccines; the Immunize for Good site is a good source for a realistic picture of the risks versus the benefits."

Here, this reviewer must congratulate this writer – he is correct when it comes

[29] See: http://www.cdc.gov/vaccines/recs/schedules/downloads/child/0-6yrs-schedule-bw.pdf and http://www.cdc.gov/vaccines/recs/schedules/downloads/child/7-18yrs-schedule-bw.pdf.

to the articles proponents of vaccines and vaccination programs publish — they usually report the "efficacy"[30] of a given vaccine or vaccine "disease antigenic" component.

Moreover, *even for efficacy*, most studies do not intensively monitor these putative levels of protective antibodies for at least 10 years before the vaccine is approved in a manner that demonstrates that the efficacy translates in to effective long-term disease protection, or, for that matter, similarly monitor the study-vaccinated individuals for at least 10 to 20 years after their initial inoculations to establish the vaccine's in-use effectiveness.

To establish that a vaccine is truly effective in preventing disease, one needs to measure and report the vaccine's in-use effectiveness — not the vaccine's titer-based "efficacy" because it does not matter what your antibody titer levels are if you subsequently contract a clinical case of the disease.

Yet, most government- and vaccine-maker- sponsored studies intentionally do not study the long-term in-use effectiveness of the current vaccines.

Further, in some instances, the lack of demonstrated long-term in-use effectiveness is perversely used to justify more doses of vaccine.

In the case of the flu vaccines, for example, their lack of in-use effectiveness has been used as a justification for the need for Americans to get from 1 to 4 doses of one or two flu vaccines in a given year, where most of the available doses are still Thimerosal-preserved, and then continue to get at least one additional dose of a flu vaccine every year for their life.

Since the implicit promise of the U.S. CDC's "**Recommended Immunization Schedule for Persons** …" chart (underlining added for emphasis) is long-term, if not lifetime, "immunity", then, only those vaccines that actually provide the implicit in-use effectiveness should be allowed to be added to, or remain in, such schedules.

"Is the *Baltimore Sun* responsible for the anti-vaccination stories appearing on its Opinion pages?"

Here, this writer begins by asking a question that has nothing to do with either of the articles that this writer has addressed.

Further, Dr. Geier, who is strong proponent of vaccines, wrote a commentary that did not even address vaccination issues but rather focused on his medical practice and his current disagreement with Maryland's medical licensing board.

In addition, there is nothing in Ms. Dunkle's commentary that is explicitly anti-vaccination; all that she is asking for is scientifically sound and appropriate safety studies to verify that the whole vaccination program is safe.

Since the cited commentaries are not "*anti-vaccination stories*", the writer's "*Is*

[30] Here, "efficacy" measures are vaccine-maker constructed measures of anti-body titers for one or more antibodies in the vaccine as measured by vaccine-maker-derived tests without regard to the nature and level of antibodies produced by the other components in the vaccine or proof that the measures of "efficacy" translate into disease-preventive effectiveness.

the Baltimore Sun responsible for …" question has nothing to do with the paper's actions.

"I can imagine their response: 'we're just presenting both sides,' they might argue.

Unlike this writer, this reviewer thinks that, *if the paper's editors were to respond*, they would simply state that, since the opinions presented are <u>not</u> anti-vaccination commentaries, this writer is mistaken.

"Debates are just fine when political opinions are concerned, but you don't get to argue about facts. Scientific facts are not debated from 'both sides' – for example, we don't waste time arguing that diseases are caused by 'miasmas' as was once believed."

Here, this writer appears to not only <u>not</u> understand science and the scientific method but he also confuses what was once believed (the realm of religion) with what was factually known (the realm of science).

Thus, his "miasmas" allusion is, at best, inappropriate.

Had the writer wanted to present a cogent science-based hypothesis/theory example, he might have raised the "phlogiston" theory of fire:

> "***The phlogiston theory of fire***. *Phlogiston was supposed to be a substance that was released and became fire and heat when something was burned. Then when it was discovered that some things, like bones, become heavier when burned, they had to modify that by postulating negative phlogiston.*"
> *http://www.answerbag.com/q_view/413894*

This theory was discarded when several people observed that boring out a cannon produced enormous amounts of heat without reducing the total weight of the metal[31].

About the same time, Joseph Priestly discovered oxygen and the oxidation theory of fire replaced phlogiston theory of fire.

Thus, from when it was proposed, this "phlogiston" theory was questioned and modified <u>until</u> scientific observations proved it did <u>not</u> fit the observed facts.

At that point, the phlogiston theory of fire was discarded and replaced by the oxidation theory of fire.

As the preceding example clearly shows, contrary to this writer's views, science continually questions, studies and debates today's facts, hypotheses and theories as well as the proper observation-based interpretation of them.

In science, a true scientist is compelled to accept as possible any hypothesis or theory that might fit what has been observed <u>until and unless</u> he or someone else can unequivocally prove that hypothesis or theory is fundamentally flawed, and/or there is a new hypothesis or theory that better fits the facts.

"And when the subject is vaccines, presenting the anti-science, anti-vaccine argument has real, and harmful, consequences."

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[31] When the finished cannon and the turnings were weighed, the total weight of the finished cannon and the turning was the "same" as the weight of the canon before it was bored

Whenever, *as this writer does here*, anyone attempts to create a "carve out" exception to scientific discussion based on the consequences of discussing an issue, that person is obviously making a "*political opinion*" statement that has nothing to do with science.

Moreover, since the commentary articles in question are based on:

1. The use of a recognized indication for an FDA-approved drug, whose use has been pre-approved by other doctors and whose use is supported by a body of published peer-reviewed scientific articles on that drug and how that drug can be used to help patients, as it is in Dr. Geier's commentary, and
2. A cited peer-reviewed published article and a body of other studies, a few of which this reviewer cited, and it only addresses the issues of safety and the number of doses of vaccine types administered, as it is in Ms. Dunkle's commentary,

neither commentary is either anti-science or anti-vaccine in spite of this writer's unsubstantiated claims to the contrary.

Thus, as a scientist, this reviewer must reject this writer's statement here because it makes obviously false and non-relevant assertions.

"The science is clear: vaccines have been the single greatest boon to public health in the history of mankind."

Here, this writer begins with a brazen falsehood taken from some vaccine apologists' bible.

Factually, modern man survived and thrived for thousands of years before there were any vaccines.

As civilizations rose and fell during that period, when the civilizations were strong and vibrant, they generally had little disease as long as they provided their population with adequate shelter, protection from enemies, food, clean water; and they adopted sound sanitary and personal hygiene practices.

Moreover, when a population is malnourished, as was seen in vaccinating the vitamin-C-deficient children of the Australian aborigines, where vaccination with the DTP vaccines was lethal — killing about 50% of those vaccinated, vaccination programs can be a plague rather than a benefit.

Thus, this example clearly establishes vaccination can be a scourge, and <u>not</u> a boon, as it was a scourge for the Australian aborigines' children[32].

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[32] "One research worker in the laboratory had been immunizing animals against diseases like tetanus and Diphtheria. His experience showed that after being immunized, some of the animals died suddenly within 24 hours. These deaths had been attributed to anaphylaxis. Authorities the world over had decided that this was so (it is a severe allergic reaction). I suggested that vitamin C deficiency was the cause. The animals involved did not make their own. Like primates they required it in their diet. To discover the truth only required a simple experiment. .... The result was definite, unquestionable and final. Half of a group of animals were supplemented with vitamin C before being immunised. None died. The un-supplemented half continued to die at rates equal to those found in previous experiments. The importance of this discovery can hardly be stressed. In Australia and all over the world, infants were being immunised. Those whose vitamin C status was low were at risk. [H]ere, at last, was experimental evidence that supported my claims that stepping up immunisation

Based on the preceding example and many others like it, it would seem that giving prophylactic vaccines is a medically sound practice only when the persons to be vaccinated are not malnourished and/or they have been shown to have, or are supplemented to have, healthy levels (levels near or above the mid-range-value for healthy-individuals) of vitamin A, the B vitamins, vitamin C and vitamin D-3, at a minimum.

"Vaccines have saved millions of lives, and allowed parents to live without the fear that their children will sicken and die.

If the reference frame is late-20th and 21st century USA, as it should be, then this writer's "*have saved millions of lives*" appears to be at least a 10-fold exaggeration because, for bacterial diseases, like pertussis, the advent of the antibiotic drugs developed during WWII decreased the death rates for such diseases by a factor of 10 to 100 as well as similarly reduced the deaths from the follow-on bacterial infections that accompany many viral infections.

After all, most people, who die following an influenza infection, actually die from effects of a follow-on bacterial infection (e.g., pneumonia) as the recording of the cause of these deaths as "flu-related deaths" clearly implies.

"Here are some facts: pre-vaccination, whooping cough caused 9000 deaths per year in the U.S. Post-vaccine, this has dropped to 20 deaths per year."

With respect to the this writers first claim, "*pre-vaccination, whooping cough caused 9000 deaths per year in the U.S.*", this reviewer first notes that with the advent of penicillin in the mid-1940s, the death rate from infectious bacterial diseases, like pertussis, had dropped by more 95 %.

Thus, by the late 1940s when the first licensed DTP (diphtheria toxoid, tetanus toxoid, and pertussis antigens preserved with Thimerosal and adjuvanted with a polymeric aluminum hydroxide hydrates) vaccines began to be used, the typical number of deaths from pertussis had been reduced to less than (<) 500 per year (typically, < 300 per year) in a growing population of more 200 million residents.

Thus, the basis for a valid estimation of the effect of the introduction of the DTP vaccine probably should be "< 500" deaths per year after penicillin was introduced but before the first DTP vaccine was approved and then marketed.

Against this backdrop, this writer then states: "*this has dropped to 20 deaths per year*".

In the CDC's 2009 "Summary of Notifiable Diseases" report[33], the CDC reported between 9 and 31 pertussis (whooping cough) deaths in the period from 2002 through 2007, or about 15.7 deaths on average per year – even less, on average, than the "*20 deaths per year*" this writer claimed.

Offsetting this were the 80 to 112 reports of DTP-associated deaths in VAERS,

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campaigns among Aboriginal infants increased the death rate." **Every Second Child** [1974] by Archie Kalokerinos, MD, p. 139-140, as published by Nelson (Melbourne) [ISBN 017001987X].

[33] See: ***MMWR*** 2011 May 13; **58**(53): 1-100.

the Vaccine Adverse Events Reporting System, for the same period, with an average of 91 death reports linked to a pertussis-containing vaccine.

Since the studies of VAERS by the FDA and the CDC clearly indicate that, *even for serious adverse events*, *less than* 1 % to *no more than* 10 percent of the actual post-vaccination adverse events are generally reported to VAERS, the reported numbers are 10 to 100 times lower than the actual adverse events.

Based on the historical record, where:

1. The even the acellular pertussis toxins are significantly more toxic to humans than the tetanus and diphtheria toxoids and
2. DTP deaths are often misreported by the healthcare establishment as SIDS (sudden infant death syndrome) deaths and, to a lesser extent, shaken-baby syndrome (SBS) deaths,

this reviewer must presume that the VAERS reporting rate for the DTP vaccines is much, much closer to 1% than it is to 10%.

Based on the preceding historical realities: **a)** presuming a reporting level of "3%"; **b)** assigning 75% as the percentage of reported VAERS deaths where the acellular pertussis component was a presumed causal factor with the other 25% being attributable to other vaccine components, other vaccines and other causes; and **c)** correcting the reported average number on these bases, the average number of pertussis-vaccine-component-associated deaths annually at the present time probably exceeds [(91 x 0.75) ÷ 0.03] deaths or more than 2275 annual pertussis-vaccine-component-related deaths[34,35].

Thus, under today's DTP/Tdap vaccination protocol, the overall effect of this now seven-plus-dose DTaP/Tdap vaccination program has increased the number of deaths related to pertussis (disease plus vaccine) to about 2,300 deaths per year, or greater than 1,500 additional pertussis-component-related deaths than the annual U.S. pertussis deaths before an "effective" DTP vaccine was licensed if we ignore the apparent pre-vaccine downward trend[36].

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[34] Alternatively, the annual DPT-related deaths can be estimated from the fact that the USA's infant mortality rate in 2009 was about 3.6* per 1,000 live births higher than Japan's infant mortality rate, where the DTaP vaccinations are often still delayed until the infant is more than 1 year of age and the 1st dose start date is 3 months instead of the USA's 2 months, and estimating U.S. live births as roughly 4.2 million, a significant % of this 15,120 excess deaths per year into which this translates may have died from one of the "3" DTaP vaccinations they received before 1 year of age. Thus, this reviewer's estimate of 2275 pertussis-component-related deaths from vaccination is an apparently realistic estimate.

* If the WHO rounded values (see: http://www.who.int/whosis/whostat/2011/en/index.html pgs 49, for Japan, and 53, for the USA) are used, the infant mortality difference (USA – Japan) is "4" per 1,000, which translates into > 16,500 excess U.S. infant deaths. Further, this reviewer's 2275 estimate is only about 15 % of the "15,120" excess infant deaths.]

[35] There have been no cases of infectious diphtheria reported in the last few years as well as no cases of the non-communicable tetanus infection in children under 14 years of age. Based on these findings, either the diphtheria and tetanus vaccine components have been a great success or, in the case of diphtheria, like scarlet fever, the disease has died out or is now misdiagnosed as some other medical condition. In the case of tetanus, our children are apparently no longer at risk of an unattended deep puncture wounds required for clinical tetanus infections to develop.

[36] Since our population has grown by about 50 % from 1950, *even without decline trend in mortality from the 1948 level*, today's expected pertussis disease deaths would be « 750 per year.

On the preceding basis, on average, the current U.S. DTaP/Tdap vaccination program by itself apparently kills an additional 1,500-plus children a year more than would have died if no pertussis-containing vaccination program had been introduced.

Based on the preceding, *which may underestimate the number of DTaP-related deaths* [see **Footnote 34**], this reviewer asks this writer to explain:

> "How does the current DTaP vaccination program (which results in hundreds more vaccine-related deaths today than would have occurred had this pertussis-component vaccination program never been implemented and a targeted exposure prevention, early intervention, pertussis-disease-control program used instead) save lives?"

"Pre-vaccination, there were 350,000 polio cases worldwide in 1988. In 2009, there were just 1,604, and there's a chance we can eliminate polio entirely."

With respect to this writer's assertions: "*Pre-vaccination, there were 350,000 polio cases worldwide in 1988. In 2009, there were just 1,604, and there's a chance we can eliminate polio entirely*", this reviewer simply notes that the world's past and present history is not relevant to the situation in the USA.

This is the case because, *after the USA switched back to the inactivated trivalent polio vaccine at the end of the twentieth century*, there has been only one case of vaccine-related paralytic polio reported in the USA since the early 2000s, and that case was caused by an immune-system-compromised patient's being exposed to that patient's poliovirus-shedding child just after that child had been given a live-virus oral polio vaccine, whose poliovirus shedding infected and ultimately paralyzed and killed that immune-system-compromised patient.

Therefore, as long as thousands of doses of an oral live-virus polio vaccine are dispensed annually in any nation, there is no chance polio will be "eliminated".

This is a reality because the live viruses in the oral vaccines infect all who are given them and continually enter the environment from the fecal waste produced by those inoculated with these live-virus polio vaccines and persist there, infect other animals and humans, and mutate into strains that are not covered by the vaccines.

Thus, as long as people are being given live-virus polio vaccines, this writer's "*there's a chance we can eliminate polio entirely*" is, at best, wishful thinking.

At worst, this writer's statement is part of the intentionally misleading propaganda used to justify giving the people in developing countries live-virus polio vaccines that spread, rather than eliminate, polio in the population.

"Back in 1921, diphtheria caused 206,000 cases in the U.S. alone. In 2001, there were just 2 cases."

Here, this writer switches from the deaths he used in discussing pertussis and the pertussis component of the DTP vaccines to reported "*cases*" when he speaks of diphtheria and the diphtheria toxoid component in the DTP vaccines.

Further, this writer's assertion again ignores the positive impacts of improving

sanitation and hygiene and the introduction of antibiotics that, *in the mid-to-late 1940s*, dropped the reported diphtheria cases to below 10,000 before the first licensed DTP vaccine was approved in 1948 and to below 2,000 in 1955 (well before there was widespread acceptance of the DTP vaccine).

Both improving sanitation and hygiene and the introduction of antibiotics again account for 98% to 99% of the reduction from this writer's 1921 figure.

In addition, after 1979, the reporting of diphtheria cases was changed to exclude the previously reportable 'cutaneous' cases of diphtheria infection, which apparently reduced the number of diphtheria cases reported by another factor of 12-15 (from the level of about "59" reported annual cases in 1979 to the level of 2-to-5 reported cases annually in the 1980s and 1990s, which has apparently dropped to the "0"-reported-cases-per-year level after 2004).

On this basis, it would seem that the diphtheria component (the 'D' in the 'DTP' vaccines is responsible for much less than 2% of the drop in the number of reported diphtheria cases from this writer's reported 1921 level.

Clearly, better hygiene, improved sanitation and the introduction of the antibiotics provided about 99% of the drop, and a redefinition of what was a reportable case and disease die out accounted for much of the remaining drop.

"If we stop vaccinating, these diseases will return. And make no mistake about it: if measles, whooping cough, polio, and other vaccine-preventable diseases return, children will die."

Here, this reviewer first notes that this writer ignores three (3) realities:

1. Because, except possibly for diphtheria, the viruses and bacteria that cause the non-vector-borne contagious diseases this writer has chosen to mention are still with us, some susceptible individuals will continue to contract these diseases and a few of those who are infected may die no matter whether they are vaccinated or not.
2. Too many of our children are currently dying from (or being permanently maimed by) one or more of the vaccines (or a component or components in them) that our children are being given[37].
3. Most of the diseases for which there is a CDC-recommended vaccination program have never left the USA and, worse, **a)** the vaccines that contain live-virus components infect most of those who are vaccinated with them and, through shedding, also infect others to varying degrees[38] and may actually increase disease severity in the population, and **b)** *as the need to*

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[37] Unfortunately, because from *less than* 1 % to *no more than* 10 % of all post-vaccination adverse reactions are reported to VAERS and the use of multiple-component vaccines and the number of components in them continues to increase, it is difficult in many instances to: **a)** ascertain the true death and disability tolls for each vaccine or for the component(s) in them for those vaccines in the current CDC-recommended vaccination program and **b)** identify and isolate the particular vaccines (or vaccine components) that are truly problematic so that they can be removed from the program.

[38] For example, see: http://www.npr.org/blogs/health/2011/07/26/138683207/chicken-pox-deaths-plummet-with-help-of-vaccine?ps=sh_sthdl, published on 25 July 2011, which stated (emphasis added): "Though the disease is barely fatal anymore, the vaccine doesn't provide perfect protection from illness. After one shot of the vaccine, about 25 percent of children still spread the varicella virus around, or get sick themselves."

increase the number of strains in the pneumococcal (Streptococcus pneumoniae) vaccines for children has clearly shown, the polysaccharide and/or polysaccharide-conjugate bacterial vaccines cause strain and disease organism shifts, which have resulted in the rise of strains that were not a problem before the initial vaccine (e.g., Wyeth's Prevnar®/ Prevenar®, which, with six added *S pneumoniae* strains, is now Prevnar 13®/Prevenar 13®) as well as infections by other organisms, like the increasing cases of *Serratia* pneumonia and *B. parapertussis*.

Moreover, the excess child-mortality rate in the USA (about 8 per 1,000 in 2007) over the corresponding child-mortality rate in Japan (about 3 per 1,000 in 2007)[39] indicates that our current childhood vaccination program may currently be unnecessarily causing some significant percentage of the about 5 excess deaths per 1,000 children under five years of age in the USA.

Thus, in today's America, it is clear that: **a)** some of the vaccines (or the number of doses of them or a component or components in them) seem to be killing more of our children than we should be tolerating and **b)** the simple answer to Ms. Dunkle's closing "Too many? Too few? Or just right?" question about the current CDC-recommended vaccination program for those 2 years of age and younger seems to be "Too many" before they are two years of age.

"I'm sure that the editors of the ***Baltimore Sun*** don't want this to happen. But through their ignorance of the science around vaccines, they have allowed their newspaper to become a voice for a dangerously misinformed group of activists whose main goal is to stop vaccines."

Now, this writer pulls out all of the stops, begins to browbeat the editors of the newspaper, and accuses the paper's editors of being ignorant "*of the science around vaccines*".

However, the reality is, as this reviewer's evidence-supported narrative has established, *if anyone is ignorant*, this writer is the one who is ignorant "*of the science around vaccines*".

Further, since, as their recent commentaries published in the newspaper clearly establish, neither Dr. Geier nor Ms. Dunkle are "*activists whose main goal is to stop vaccines*"; nor do they seem to be "*misinformed*" about vaccines; and two individuals who have obviously different agendas and imperatives are not a "*group*", this reviewer hopes that these editors will simply ignore this writer's vaccine apologist's rant here.

"How to correct the damage? Well, the ***Sun*** could publish multiple articles on their Opinion pages explaining how many lives vaccines have saved."

Given the information provided by this reviewer, perhaps the editors will begin to publish articles that show the best estimates of the lives saved and lives lost as well as all of the direct and indirect costs, including the adverse event costs, associated with each of the basic vaccine types that are in the current CDC-

[39] See: http://www.who.int/whosis/whostat/2011/en/index.html, last visited on 24 July 2011.

recommended childhood vaccination program (i.e., **a)** the 7-dose DTaP/Tdap program, **b)** the 4-dose IPV program, **c)** the 3- or 4- dose Hib program, **d)** the 3-dose Hepatitis B program, **e)** the 2-dose Hepatitis A program, **f)** the 4-plus-dose S. pneumoniae [pneumococcal] program, **g)** the 2–plus-dose Herpes Varicella Zoster [chickenpox/shingles vaccines] program, **h)** the 2-plus-dose MMR program, **i)** the ~ 3-dose N. Meningitidis program, **j)** the 2- or-3- dose rotavirus program, **k)** the 3- dose HPV program, and **l)** the 18-plus-dose childhood influenza program).

Perhaps when the ***Sun*** begins giving its readers factual information rather than propaganda about vaccines, its readership may grow.

"They could help to re-educate parents about how valuable these medicines are, so they will demand them for their children, rather than refusing them as some parents now do."

Whenever this reviewer sees the word "re-educate", he is reminded of the re-education camps run by oppressive regimes and would hope that these newspaper editors would decline this writer's invitation.

Remembering that: **a)** absent disease exposure, there is no benefit to any prophylactic vaccination regimen and **b)** all of our current vaccines have real risks that increase as the number of vaccine doses increases, this reviewer hopes that the editors will find and publish as much factual information as they can about all of the aspects, pro and con, of each vaccine and its vaccination program so that the public can easily make informed decisions for themselves and their loved ones.

When a vaccine is truly an effective medicine for a given infectious disease, is reasonably safe, and provides long-term protection from that disease, then there will be no need to advertise the benefits of that vaccination program, all will see the benefits, comprehend that the vaccine has almost no risk of a serious adverse reaction, and demand that vaccine.

If, as this writer and other of his ilk seem to be doing, newspapers are "encouraged" to become touts for the vaccines or vaccination programs that have serious problems, then, the public will turn to other venues to find the factual information that they need to make informed consent decisions concerning vaccines for themselves, their children and/or their wards – and the newspapers and the vaccine programs will continue to lose public support,

Moreover, who will pay to advertise in a newspaper that has very few readers?

If, as the situation seems to be increasingly becoming, the vaccine makers and the public health officials are trying to conceal, cover up, and misrepresent the risks of some vaccine (e.g., Merck's Gardasil®) and oversell its benefits, then, *as is currently the case*, the public will continue to lose trust in such vaccines as well as in the individuals and institutions who are engaged in hyping one or more of those vaccines or the overall recommended vaccination program in which such problematic vaccines are included.

If the editors of the ***Sun*** would like a good place to start, they could always try to find out the names and amounts of the components in Novartis' MenVeo®

meningococcal meningitis vaccine, other than the four antigens (conjugated polysaccharides from the A, C, Y and W-135 strains of the N. meningitidis bacteria) and the formaldehyde that are disclosed in MenVeo's package insert, and publish that information <u>because</u> the FDA and Novartis have refused this reviewer's written requests for this information.

This reviewer is making this request because the people have a right to know what chemicals are being injected into themselves and/or their children and/or wards, with the hope that the Sun has the clout to get the answers that have been denied to this reviewer.

"I have only a faint hope that the ***Sun***'s editors will take such action, but I'm calling for it anyway. They owe it to the public."

Here, this reviewer would urge the editors of this paper to use the pages of their newspaper to inform their readers of the facts concerning vaccines and our current recommended national vaccination program – because that is what they truly owe the public – rather than shilling for the vaccine makers and their allies, as this writer suggests.

"[A pre-emptive response to those who often make ad hominem attacks, claiming I'm in the pockets of Big Pharma: I'm not. I have never received payments or gifts of any type from any drug or vaccine maker.]"

This reviewer discussed the relevant portions of this writer's remarks here earlier in this review.

This reviewer's conflicts of interest are that he is:

a. A PhD in Analytical Chemistry and a Masters in Inorganic Chemistry who, for more than three decades, has worked for or consulted with companies that sell, or sold, pharmaceuticals, dietary supplements and biocides;

b. A colleague of Dr. Mark R. Geier and his son, David A. Geier, managed one of the ASD Center's satellite consultancies for about a year and a half, and is an author in, or acknowledged contributor to, some of the peer-reviewed, published papers in which Dr. Geier is also an author;

c. A vaccine-safety advocate who is <u>not</u> anti-vaccine;

d. An active opponent of the waste of healthcare dollars on vaccination programs where the vaccines are <u>not</u> in-use effective and/or the vaccination programs are <u>not</u> medically cost-effective;

e. An ardent opponent of any use of mercury in medicine and dentistry <u>without</u> independent toxicological proof that such use is "sufficiently nontoxic" to <u>susceptible individuals</u>[40,41,42] at the single-dose level,

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[40] Warkany J, Hubbard DM. Mercury in the urine of children with acrodynia. ***Lancet*** 1948; **1**: 829–838.

[41] Geier DA, Kern JK, Garver CR, Adams JB, Audhya T, Nataf R, Geier MR. Biomarkers of environmental toxicity and susceptibility in autism. ***J. Neurol. Sci.*** 2009; **280**: 101–108.

[42] Shandley K, Austin DW. Ancestry of Pink Disease (Infantile Acrodynia) Identified as a Risk Factor for Autism Spectrum Disorders. ***J. Toxicol. Environ. Health A*** 2011; **74**(18): 1185-1194.

one of the co-founders of CoMeD, Inc, a 501(c)(3) corporation that is also a UN-recognized non-governmental organization (NGO) involved in the UN's efforts to restrict the use of mercury, and CoMeD's Science Advisor and current Secretary; and

f. A party to on-going federal legal action to ban the use of mercury in medicine and dentistry.

"**Steven Salzberg**

FIGHTING PSEUDOSCIENCE

Contributor Since: January 2010

[To ***Forbes Magazine***]

ABOUT ME

I'm a Professor of Medicine and Biostatistics in the Institute of Genetic Medicine at Johns Hopkins University's School of Medicine.

Until mid-2011, I was Professor and Director of the Center for Bioinformatics and Computational Biology at the University of Maryland, College Park.

Before joining UMD, I was at The Institute for Genomic Research, where I sequenced the genomes of many bacteria, including those used in the 2001 anthrax attacks.

At TIGR, I was part of the Human Genome Project and the co-founder of the influenza virus sequencing project (which is when I first learned of the anti-vaccine movement).

My research group develops software for DNA sequence analysis, and our (free) software is used by scientific laboratories around the globe.

I did my B.A. and M.S. at Yale University, and my Ph.D. at Harvard University, and I have published over 200 scientific papers.

PROFESSIONAL

I'm Known For...

Software algorithms to find genes and to assemble genomes from raw DNA sequences.

My Other Website

http://cbcb.umd.edu/~salzberg ..."

Paul G. King, PhD

About this reviewer

Lest any take this reviewer's comments in this review as those of someone who is "anti-vaccine", Dr. King is a supporter of reasonably safe and effective vaccines and cost-effective vaccination programs.

Given the scientific information available currently, he supports those national vaccination programs for vaccines that have independently been proven both generally safe and medically cost-effective, provided the individual parent's, guardian's, or competent citizen's constitutional rights to "due process of law", "religious freedom", "medical choice" and "informed consent" are not abridged, infringed or ignored.

The detailed credentials for this reviewer can be found at http://dr-king.com.