

True or False? At Least 55 Undeclared Chemical Elements Have Been Detected by ICP-MS in COVID-19 “Vaccines”

Robert M. Davidson¹, MD, PhD, Daniel Broudy², PhD, Shimon Yanowitz³, Daniel Santiago⁴, PharmD, and John W. Oller, Jr.⁵, PhD

¹ Formerly Internal Medicine physician with PhyNet, Inc. Longview, Texas, Board-certified in Nuclear and Internal Medicine, now retired from patient care patrons99@yahoo.com (ORCID: <https://orcid.org/0000-0003-4157-9568>)

² Professor of Applied Linguistics, Okinawa Christian University, Nishihara-cho, Okinawa 903-0207, Japan, email: dbroudy@ocjc.ac.jp (ORCID: <https://orcid.org/0000-0003-2725-6914>)

³ Independent Israeli researcher with expertise in electromagnetic radiation and its interaction with biological systems shimon-y@013net.net (ORCID: <https://orcid.org/0009-0008-0636-0257>)

⁴ Pharmacist in Florida and member of the Editorial Board for *IJVTPR* sanshou1428@protonmail.com (ORCID: <https://orcid.org/0000-0001-5975-0592>)

⁵ Professor Emeritus University of New Mexico and Editor-in-Chief of the *IJVTPR* joller@UNM.edu (ORCID: <https://orcid.org/0000-0001-7666-651X>), corresponding author: john.oller@protonmail.com

Abstract

Claims of “major flaws” in Diblasi et al. 2024, the article appearing in this journal immediately before this commentary, were published in *The Defender* after Mike Adams, in his own words, “leveled harsh criticism against Children’s Health Defense”. Those complaints were more directly against this journal and its editors because we reviewed and published that work. Adams said that some values reported were tinier than any detectable by the Agilent 7500cx instrument. From a typo, “μ” for “m” he inferred incompetence and fraudulent intent by the Diblasi team, and said the *IJVTPR* editors were “duped”. Consequently, we have re-examined the work from raw data to its individual tabled values, every one of them. That flagrant keystroke error was purged with others, but the conclusion stands: *the COVID-19 injectables contain at least 55 undeclared chemical elements including so-called “rare earth” metals and 12 of the 15 lanthanides*. The likelihood that *such elements are not involved in self-assembling entities in the fluids and in the unnatural clots in many recipients is zero*. Ongoing gain-of-function bioweapons research together with published agendas for population reduction and control suggest that military-grade nanotechnologies are at play in the world-wide COVID-19 experiment.

Keywords: *COVID-19 vaccines, DNA programing, dual use engineering, gain-of-function research, genetic engineering, global depopulation agenda, modified mRNA, nanotechnology, neurological warfare, population reduction, surfactant*

Introduction

During the COVID-19 era, states in league with transnational pharmaceutical giants, with bioweapons laboratories (Fleming, 2021; A. G. Huff, 2022; A. G. Huff & Lyons, 2023), have injected more than half the world's total population (Pharmaceutical Technology, 2024) with so-called “vaccines” which are actually experimental genetic technologies with biological and neurological weapons applications (Deruelle, 2020; Oller, 2021a; Deruelle, 2022, 2024). In those technologies, independent researchers have found exotic self-assembling entities (Lee et al., 2022; Benzi Cipelli et al., 2022; Hughes, 2022; Santiago, 2022; Segalla 2023a, 2023b, 2023c, 2024; Jeon et al., 2023; Lee & Broudy, 2024a, 2024b; Ulrich, 2024; Tuuminen, 2024; Hughes, 2024; Hughes et al., 2024; Johnson et al., 2024), some of which seem to appear both in samples of fluid taken from the vials of injectable material — for instance, the so-called “Morgellons” (Lee et al., 2022; but also see Ulrich, 2024) — as well as in centrifuged blood of recipients; and some of which, notably the rubbery white clots widely found by different embalmers in the US and Canada (Kell et al., 2022; Nyström & Hammarström, 2022; Santiago & Oller, 2023) and by clinicians and surgeons (Santiago, 2024). Now, with the Diblasi research on record, having identified 55 undeclared chemical elements including all 11 of the “heavy metals” and 12 of the 15 electromagnetic and luminescent lanthanides central to ongoing optogenetic biological research (J.-H. Wang et al., 2020; Mnasri et al., 2021), DNA programing and enhancing (Kämmerer et al., 2024) with applications in medicine (Z. Wang et al., 2023; Mahalakshmi et al., 2024), in automated computer chip assembly (Blain, 2024), geoengineering (Wigington, 2021; Kennedy, Jr. & Wigington, 2023; Parson & Keith, 2024), and biological warfare (Deruelle, 2024), it seems reasonable, to wonder why any such undeclared chemical elements should be showing up in so-called COVID-19 “vaccines”.

Contaminants or Intended Components?

Are they mere contaminants suggesting inadequate oversight by regulatory agencies, or are they possibly related to more deliberate purposes that have been concealed from the billions of people who have been strongly encouraged, cajoled, coaxed, bribed, or frightened by government officials into accepting injections of them directly into their bodies. As of December 17, 2024, a total of 13,411,157,131 injections of the COVID-19 products (Pharmaceutical Technology, 2024) had been administered and they are still being counted and added to daily. Meanwhile, contrary to the mainstream narrative, a world-wide disaster is unfolding in sufficiently isolated and usually temporally separated events — therefore, seeming, perhaps, to people believing the mainstream narrative, to be independent and unrelated — involving whole new diseases, new syndromes of well-known existing diseases, unexplained cardiovascular problems, rapidly developing cancers, and a multitude of sporadic sudden deaths of formerly healthy people, many of them young trained athletes in the peak of health (Dowd, 2022; Mead, et al., 2024a, 2024b).

As a result, those of us involved in the study of vaccine theory, practice, and research are obliged to ask why. Perhaps the most fundamental enigma of the COVID-19 era, is why are the COVID-19 “vaccines” proving increasingly to be harmful, even lethal to millions of people (Beattie, 2021; Rancourt, et al., 2022; Oller & Santiago, 2022; Santiago & Oller, 2023; Santiago, 2024)? All of us who are members of this particular team of authors — and we expect this is true of all the

members of the Editorial Board for the *International Journal of Vaccine Theory, Practice, and Research* (IJVTPR) — knew personally, or were closely related to one or more persons whom we reasonably believe to have been injured, or killed, by one or more of the COVID-19 injections. In our personal experience, individually and collectively, this fact is unprecedented and has incentivized us to pursue every avenue of research available, with every tool that can be mustered to try to understand what is in the COVID-19 injectables that are, as we see things, wreaking havoc on the health and well-being of human beings globally.

Widely Viewed, but Not Peer-Reviewed Criticisms

In this paper, we are obliged to respond to certain published criticisms, ones that were not peer-reviewed and yet that have garnered more than 37,000 views at the site of *The Defender* and more than half again, 17,000 plus, in blog-posts written by Mike Adams who calls himself “the [Health Ranger](#)”. We have to say that we are, as always, grateful for corrections of genuine errors. Among the keystroke, typographical errors in the Diblasi et al. work was an inadvertent substitution of “ μ ”, the symbol for “micro-” in combination with “L” for “liter” meaning “one millionth of a liter”, when what was intended was “m-”, the symbol for “milli-”, which, in combination with “L” for “liter” would mean “one thousandth of a liter”. That typographical error was egregious. Oller, being the last copyeditor of the final proofs, along with the authors of the Diblasi work and the 11 other editors who read and approved it for publication, are indebted to Mike Adams and the other critic, Chris Exley — the renowned expert researcher concerning the toxicity of various aluminum compounds — who pointed out the embarrassing typographical error. We are thankful to both of them for spotting the error early in their reading of at least parts of the Diblasi et al. paper.

That typographical error was corrected within an hour of the time it was called to our attention by Adams, Exley, and the Editor in Chief of *The Defender* in the “Editor’s Note” added at the top of the excellent article in *The Defender* by Brenda Baletti (2024). Both the Baletti article and the “Editor’s Note” were published just a few days after Diblasi et al. appeared. Upon inquiry, Oller discovered that the “Editor’s Note” — claiming on the basis of published but not peer-reviewed criticisms of the Diblasi work that it contained “major flaws” — was composed by Brian Hooker, PhD, who is the Chief Scientific Officer at Children’s Health Defense and who is also a valued member of the Editorial Board for the IJVTPR. The “Editor’s Note”, presumably approved by the Editor-in-Chief for *The Defender*, who is named on their website as Katherine Paul, included the optimistic statement that “*this type of scientific discourse only serves to advance our cause regarding children’s health*”. We hope that it does that and much more. Our goal as editors of an academic research journal, which is always some kind of team effort, is to pursue valid knowledge about vaccine theory, practice, and research as stated on the website for the journal at [this link](#). For that reason, we always welcome the correction of errors wherever they occur and are pointed out to us.

That being said, the inadvertent substitution of the symbol for “micro” versus the one for “milli” has a multitude of cascading effects downstream if it is taken as an intentional value in the manner argued by Mike Adams. Dividing the size of a Hamilton syringe by a factor of 1,000 to go from 5 mL to 5 μ L changes all the downstream math. Adams went to town with that actual typographical error — one also noted by Exley. However, Exley’s complaint that Diblasi et al. should have reported the quantities they detected in micrograms per dose (which happen to be different sizes for different products) rather than in micrograms per liter (μ g/L) — the latter being the absolutely standard method of reporting ICP-MS findings — certainly does not rise to the level of any kind of error. Neither can it reasonably be claimed, we believe, as the author of the “Editor’s Note” implied

and asserted, that the actual typographical error together with the stylistic complaint, either separately or together reach the level of “major flaws” in the Diblasi et al. research. More importantly, when “the [Health Ranger](#)” infers from the typographical mistake that Diblasi et al. are incompetent and also frauds perpetrating “a hoax” (see Adams [2024](#)), he over-reaches. He implies that both the authors and the reviewers are affected by some degree of “scientific illiteracy” and have not understood “high school chemistry” pertaining to the theory of atoms, molecules, and the elements in the Periodic Table. Pushing his hollow argument to absurdity he claims the work is “a hoax” that should be “retracted”. He says the authors themselves should immediately “retract” the paper to avoid “embarrassment”, and, moreover, the editors who approved it for publication, some of whom he names, were “duped” and should consequently dissociate themselves from the Diblasi work. Regrettably, we did not have a chance to peer-review the Adams blogs that he published on his own widely read outlets. However, we will correct that omission here.

According to the official website which “the [Health Ranger](#)” himself founded, where his criticisms of the Diblasi et al. work appear, Mike Adams is the

founder of NaturalNews.com, a best selling author (#1 best selling science book on Amazon.com called “[Food Forensics](#)”) . . . an environmental scientist, a patent holder for a cesium radioactive isotope elimination invention, a multiple award winner for outstanding journalism, a science news publisher and influential commentator on topics ranging from science and medicine to culture and politics. . . . [having a] widely recognized . . . remarkable global impact on issues like GMOs, vaccines, nutrition therapies, [and] human consciousness.

We regret that he did not submit his critique of Diblasi et al. to be peer-reviewed, and possibly to be included right here directly following the Diblasi paper. He did not do that but instead as he puts it in his own words, “I leveled harsh criticism against Children’s Health Defense” — sufficiently “harsh” that he claimed on his blog site he had persuaded Brian Hooker, the Chief Science Director for Children’s Health Defense, to remove “his name from the paper” (Adams, [2024](#); first screen in italics under the colorful blue photo of vials labeled COVID-19 “Booster Shot”) — as if, it seems, Brian were a co-author of the Diblasi et al. study rather than merely one of 11 peer-reviewers who approved it for publication. But Brian was not a co-author and he is still listed in the **Acknowledgments** on page 1387 along with several other distinguished reviewers.

Mentioning Peer-Reviewers by Name

Adding the mention of peer-reviewers in an **Acknowledgments** section in the more recently published works appearing in the *IJVT* is a new practice at the journal to emphasize the fact that all of the articles published in this journal, and all the commentaries on them, are peer-reviewed. By including the names of reviewers in the **Acknowledgments** section, we are also disclosing explicitly, and redundantly, that when any member of the Editorial Board for the journal is also a co-author of the published paper, that person’s name will be in the list of authors but ubiquitously absent from the list of reviewers of the particular work in question. We say “redundantly” because that information is already disclosed on our website for the journal. For instance, Brian Hooker is a co-author on the recently appearing paper with Peters et al. ([2024](#)) about measures of the time and proximity of women who never injected with any of COVID-19 “vaccines”, never expressing symptoms of COVID-19, and never tested positive for COVID-19 infection who abruptly started having abnormal menstrual bleeding after 70 million COVID-19 injections were administered.

Our objective in acknowledging peer-reviewers, as we do now, is to emphasize the fact that peer-review *indeed has taken place prior to the publication of the piece in question*, and also we emphasize overtly concerning any co-author that happens to be a member of our Editorial Board, in the brief biography of that individual associated with each article, that this author in particular is indeed also a member of the *IJVT*PR Editorial Board. In doing so, we make explicit the ubiquitous absence of that author/editor from the list of persons peer-reviewing that particular article in the separate **Acknowledgments** section. Why, we wonder, do some critics and journalists in particular keep asking if the journal is peer-reviewed? Adams did not do that but, in principle, he actually challenged the competence of all 11 reviewers of the Diblasi et al. work suggesting that the reviewers need his help and expertise to fully understand the limits of detection and quantification for the Agilent 7500cx instrument. His most telling complaint, if it were true, was that the Agilent 7500cx is not sensitive enough to measure the minuscule quantities of some of the 55 undeclared chemical elements found by Diblasi et al.

In his own words, Adams describes himself as taking the role of “police” purging what he calls “our movement” from “obvious junk science”. He refers specifically to what

people claim to be seeing under their microscopes, . . . where everything that looks like a crystal is now being called a “microchip” (the [Health Ranger](#)”).

Adams seems to be an entertaining and charming critic urging editors of the *IJVT*PR to heed his advice and to retract the Diblasi work. However, even contemplating that, much less doing it, is contrary to our purposes and stated policies. We do not even consider publishing *ad hominem* attacks on researchers or commentaries that impugn the character of our authors or any researcher. That quality in the writings and video logs that Mike Adams has published about the Diblasi et al. research would have been removed if we had peer-reviewed his work. We are often authors ourselves and all of us are experienced in being on that other-side-of-the-desk, so-to-speak. Our job as editors is to address the facts as represented in any work submitted for consideration and, if the work is judged publishable according to our standards, we aim to go a step further than most journal editors in helping authors to get their work into the best shape possible prior to its publication. With Diblasi et al. our job was intensified by the fact that the authors originally wrote it in Spanish. We found that working across languages in technical territory was a bigger challenge than expected. As we said on our website under the heading of “Peer Review Process for the *IJVT*PR” paragraph “7. [Peer-Review Limitations Acknowledged](#)”:

There can be no completely perfect peer-review system, but our goal is to rely on the best and most qualified examination of the theory and research submitted for review that can be had. . . . The purpose of peer-review is to ensure open discussion by qualified academics who are diligently pursuing comprehension and representation of experimentally verifiable knowledge – in keeping with . . . the “Feynman rule” – if it does not agree with well-designed experimental research the theory is wrong. . . . The old wisdom that truth is known by its fruits, applies. The purpose of peer-review is to ensure, as much as is possible, the honest pursuit of such knowledge – ordinary true representations consistent with observable facts.

Once it is out in the wider academic arena, each article that we publish will get a much more intensive review by hundreds, thousands, tens of thousands, and in some cases more than a million pairs of eyes. Scientific inquiries and published works — including those pertaining to vaccine theory, practice, and research — are always, in our judgment, to be regarded as works in progress subject to minor or major revisions.

Our Objection to “Retraction”

We object in principle to the notion that it is possible to undo spoken, written, or otherwise communicated actions that have already been shared with some audience. People cannot unhear, unread, or unwrite something already heard, read, or written. The recommendation by Adams that Diblasi et al. should be “retracted” seems to suggest some kind of quasi-miraculous undoing — as if actions already taken could be completely erased, as if they had never happened in the first place. The physicist, Edwin Thomson Jaynes (1957a, 1957b, 1959) proved mathematically that such an undoing of an action or sequence of them, as in any experiment, is impossible to perform. It is not just difficult to back things up to the way they were before certain actions were taken in the real world, it is physically and mathematically impossible. Yet, editors subscribing to what we see as the “weaponization” of mainstream academic and medical journals controlled largely by the pharmaceutical industry in collusion with other governmental and non-governmental entities seem to act as if it were possible to completely erase events that have already occurred. God can restore the years the locust has eaten, changing the past wholesale, but we cannot. While a ship that has sailed can turn around and go back to the port from which it was launched, it cannot be unsailed in a manner that erases the preceding series of events.

As Shaw and Oller have made clear from the outset when this journal was inaugurated in July 2020, it was the weaponized use of “retraction” that spurred us to create a completely independent peer-reviewed academic journal in this “crowded field” (Oller & Shaw, 2020; Shaw, 2020; Oller, 2021c). To maintain our independence, we have steadfastly refused to advertise and have declined to be purchased by other entities that are in the marketplace either as operating 501(c)3 entities or as educational corporations. Unlike Mike Adams, we are not independently wealthy, able to contribute half a million dollars recently to support people harmed by a hurricane, but hats off to Mike Adams for doing so. Unlike “the [Health Ranger](#)”, we do not advertise or sell products. We charge no fees for viewing the products we produce and, we cannot at present, afford so much as a paid professional copyeditor. Perhaps we need to provide for and add that expense into our tight budget.

All our work is voluntary and unpaid and the revenues from article processing fees and an occasional donation only pay for our website, the Open Journal Systems software we use, domain names, CrossRef membership paid quarterly, required accounting and paperwork that has to be done professionally, and a few other incidental expenses. For that reason, even after vetting each article and proofing it as carefully as we and the authors are able to do working always against the clock, because time is of the essence, we depend largely on, and are hugely grateful to our readers who notice and report typographical errors and other infelicities that appear in the works we have already published. For that reason we are genuinely grateful to Mike Adams and Chris Exley for noticing the typographical error where a micron symbol was substitute for an em. Adams actually made two points that must be addressed. Most importantly, he argued that the Agilent 7500 used by Diblasi et al. lacks the sensitivity to detect quantities as small as those reported by them. We will devote most of our attention to that claim which we believe is mistaken. In addition, he argued that chemical elements as such are unregulated, that it would be “absurd” to suppose they ought to be or could be regulated in any way.

In his 2024 update about the Diblasi et al. work, Adams complained:

The study says the 55 “chemical elements” are “undeclared”, implying that there is some law or regulatory requirement that vaccines declare their elemental composition. **There is no such requirement because that would be absurd.**

He says it would be silly for cereal makers to be obliged by regulatory agencies to announce the quantities of each element in the Periodic Table on the outside of every box. That's a straw man easily knocked to the ground. But is it true that regulatory agencies pay no attention to individual chemical elements in products they are supposed to regulate? No, it is not. Adams is mistaken in saying that there are no laws or regulations governing the chemical elements in vaccines, drugs, food supplements, etc. If Adams were correct, why would every one of the COVID-19 products sampled declare from six to eight specific chemical elements in their contents (see Table 10 in Diblasi et al., page 1384).

Pressing on, before we address Mike's argument about the sensitivity of the Agilent 7500cx instrument — which would be devastating only if it were correct — in our section labeled, **Heavy Metals and Lanthanides**, it may be refreshing to note a point of some agreement with Mike Adams. Although we would express our version of each of his arguments in less journalistic terms and we would avoid some of his colorful uses of language, he has been a vigorous opponent of the population agenda that we deal with in our next section. He has addressed three essential aspects of that agenda: for one, he has asserted that the COVID-19 injectables are “depopulation bioweapons” (Adams, 2024); for another, he has called out the program of using overhead spraying of millions of tons of reflective material in chemtrails to supposedly prevent “global warming” (Adams, 2018; E. Huff, 2023); and for a third, he has opposed the World Health Organization program of surreptitiously using tetanus toxoid conjugated with human chorionic gonadotropin (hCG) to sterilize women in Kenya and surrounding regions of Africa. The last point was argued by Oller et al. (2017,¹ 2020); also by Robert F. Kennedy, Jr. (2021, pp 336-353ff), and by himself and Wakefield (2022) in a documentary film featuring the key protagonists including Stephen Karanja, MD, and Wahome Ngare, MD in Nairobi. In that film, Karanja predicted his own death, where he argued that the nefarious powers perpetrating the population agenda were coming for him and for those in the rest of the world who were, in his view, also standing in harm's way.

The Long-Standing Population Agenda

As to why the COVID-19 injectables are causing so much havoc, a crucial part of the explanation may consist in the long-standing agenda of the US National Security Agency (National Security Council, 1975, 2014) and the World Health Organization to find ways to limit population growth and even to reduce the world's population (WHO Special Programme of Research, 1993; Oller et al., 2017, 2020; and see footnote 1). The plan to use vaccines in some form, along with related technologies, to accomplish these and related goals, as well as to monitor and even control and direct the behavior of the world's people (Harris, 2020; Schwab & Malleret, 2020; Harari & World Economic Forum, 2022; Harari, 2023) has been notably supported by Bill Gates (2010). Publicly he has insisted that his goals with vaccines have been to save lives, but it is difficult to see how doing that would help to reduce the world's population growth to zero as he has advocated during the two

¹ The Zotero database, and perhaps others, claim that this work was “retracted”. That claim is false. It was never retracted. After some discussion and outside pressure from a pharmaceutical representative, *OALib* rescinded its announced plan to have the article “re-reviewed”. The exchanges that occurred concerning the possibility of subjecting the paper to another peer-review after it had already been published, a plan which the editors of *OALib* wisely decided to abandon given that the article had passed muster with multiple editors, seems to have led the people or robots at [Retraction Watch](#), to publish the false claim that the 2017 paper had been retracted. It never was retracted. Written requests to remove the false claim from Retraction Watch and from Zotero, however, have been ignored.

and a half decades in which he has become the world's primary investor in vaccines (Nebehay, 2011; Gates & Baker, 2019; Banco et al., 2022). The contradiction seems self-evident.

The Bill and Melinda Gates Foundation helped to fund ground-breaking MIT research to track vaccinated persons with luminescent quantum dots that could be monitored with infrared technology (McHugh et al., 2019). Gates is also a huge investor in the theory that spraying a concoction of sunlight blocking dust into the stratosphere and troposphere can save the planet from the predicted disaster of global warming (Tarasov, 2019; Cohen, 2021). According to Dane Wigington (2021), the damage done by the chemtrails being sprayed for climate engineering may already have reached the level of irreversible harm to the planet and every living being on it.

Topping it all off, Microsoft Technology Licensing, LLC, published in 2020 an application numbered 060606 with the World Intellectual Property Organization to patent a “cryptocurrency system” that would use “body activity data” from “a central point of control” to track the buying and selling of potentially every person injected or otherwise connected to the system (Oller, 2021b). Forced injection of the world's entire population with such a technology is no longer a mere hypothetical possibility in the post-COVID-19 era. Furthermore, the research of Deruelle (2020, 2022, 2024) combined with the findings of Diblasi et al., as well as that of Yanowitz, Lee, Broudy, Hughes, Campra, Nixon, and others, suggests that self-assembling chip-like components in the COVID-19 injectables can almost certainly be harnessed for biological and neurological warfare as already described in the voluminous scholarly literature.

With all the foregoing in mind, as far as we know, none of the published remarks about population reduction and control have been invented by critics of the COVID-19 disaster: they have been published entirely by people on the inside of the power structures promoting the gain-of-function research supposed to guard against bioweapons while all along they were actually producing the SARS-CoV-2 virus in a bioweapons laboratory (Fleming, 2021; A. G. Huff, 2022; A. G. Huff & Lyons, 2023). As we now know, that secret research being done in plain sight of the US government in collaboration with the Chinese communist regime in Mainland China, was set up to be followed by remedies that were in production for at least two decades prior to the public appearance of SARS-CoV-2 (Dubé & Cournoyer, 1995; Ho, 1998; Ainscough, 2002; van Aken & Hammond, 2003; Karikó et al., 2008; Kalds et al., 2019).

To prove that we are not appealing to some fanciful myth about global population control objectives, a glimpse at nearly a century of history may be helpful. At approximately the same time as the odious Tuskegee experiment from 1932 until 1972 (Centers for Disease Control and Prevention, 2020) was being terminated, the World Health Organization's “birth control” vaccine and fertility-reduction research was getting underway. Oller et al. (2017; see footnote 1) cited some of the key published works promoting the population control agenda of the US National Security Council that was adopted more or less wholesale by the WHO:

Contemporaneous with the WHO's initiation of research to develop anti-fertility vaccines (Talwar et al., 1976), . . . [t]he Kissinger Report (1975), also known as *U.S. National Security Study Memorandum 200* (National Security Council 2014), explained the geo-political and economic reasons for reducing population growth, especially in “less developed countries” (LDCs), to near zero. That report became official US policy under President Gerald Ford in 1975 and explicitly dealt with “effective family planning programs” for the purpose of “reducing fertility” in order to protect the interests of the industrialized nations, especially the US, in imported mineral resources (see p. 50 in 1975, 2014). Although the whole plan was initially withheld from the public, it was declassified in stages between 1980 and 1989. In the meantime, . . . the WHO research program developing “birth-control” vaccines

was initiated about 1972 and presented publicly in 1976, just one year after the Kissinger Report . . . called for “far greater efforts at fertility control” (p. 19 in 1975, 2014) world-wide, but especially in “less developed countries” (pp. 18-20). *The Kissinger Report* cited documents about “Population Growth and the American Future” as well as “Population, Resources and the Environment” and targeted LDCs specifically for “fertility control”. Justifying certain LDC targets were their known reserves of aluminum, copper, iron, lead, nickel, tin, uranium, zinc, chromium, vanadium, magnesium, phosphorous, potassium, cobalt, manganese, molybdenum, tungsten, titanium, sulphur, nitrogen, petroleum, and natural gas (see p. 42 in 1975, 2014). The linking of mineral resources with population control (“family planning”) was because the industrialized nations were already having to import significant quantities of the named minerals at considerable cost and *The Kissinger Report* anticipated that those costs were certain to rise because of instability in those LDCs precipitated by population growth (p. 41 in 1975, 2014).

The Kissinger Report also blamed population growth for pollution far in advance of the 2009 issue of the *WHO Bulletin*, where (Bryant et al., 2009) predicted a “significant increase of greenhouse gas emissions” (p. 852). That WHO publication estimated a rise in global population from around 6.8 billion people in 2009 to 9.2 billion by 2050. Extending that WHO argument, Bill Gates in 2010 expressed the hope that vaccines along with “family planning” could bring population growth to nearer to zero (Gates, 2010). Whereas Bryant et al. described anti-fertility measures as “voluntary family planning services”, they acknowledged that such WHO “services” had been reported as deceiving the persons “served” (pp. 852-853, 855) with “sterilization procedures being applied *without full consent of the patient*” [our italics] (p. 852). Similarly, a 1992 study entitled *Fertility Regulating Vaccines* published by the UN and WHO Program of Research Training in Human Reproduction, reported “cases of abuse in family planning programs” dating from the 1970s including “*incentives* [our italics]. . . [Such as] women being sterilized without their knowledge . . . being enrolled in trials of oral contraceptives or injectables without . . . consent. . . [and] not [being] informed of possible side-effects of . . . the intrauterine device (WHO *Special Programme of Research*, 1993, p. 13).

The authors of that WHO report said that phrases like “family planning” and “planned parenthood” were more acceptable to the public. They chose not to mention “anti-fertility measures for population control”. Nor did they think it wise to talk about “economic development” (p. 13) in mineral rich LDCs, or the assistance industrialized nations could provide in bringing those mineral resources to market. Speaking for the WHO, Bryant et al. wrote “it is perhaps more conducive to a rights-based approach to implement *family planning programs* [our italics] in response to the welfare needs of people and communities rather than in response to international concern for global overpopulation” (Bryant et al., 2009, p. 853). The WHO public message was to be about “health” and “family planning”. However, the message of hope would occasionally include a reference to “birth-control” vaccines. For instance, on January 22, 2010 it was officially announced that the Bill and Melinda Gates Foundation had committed \$10 billion to help accomplish the WHO population reduction goals in part with “new vaccines” (Higgins, 2010; Bill and Melinda Gates Foundation, 2020).

About a month later, Bill Gates suggested in his “Innovating to Zero” TED talk in Long Beach, California on February 20, 2010 that reducing world population growth could be done in part with “new vaccines” (Gates, 2010). At 4 minutes and 29 seconds into the talk he says: “The world today has 6.8 billion people. That’s headed up to about 9 billion [here he is almost quoting Bryant et al.]. Now, if we do a really great job *on new vaccines* [our italics], health care, reproductive health services, we could lower that by, perhaps, 10 or 15 percent....(Gates, 2010).

Heavy Metals and Lanthanides

Bearing all of the foregoing background in mind, Diblasi et al. (2024) reported having found at least 55 undeclared chemical elements in six popular brands of the COVID-19 injectables — Pfizer, Moderna, AstraZeneca, Cansino, Sinopharm, Sputnik V-I, and Sputnik V-II. Table 1 provides a list of the 57 chemical elements Diblasi et al. found. They relied on inductively coupled plasma-mass spectrometry (ICP-MS). Only two of the 57 quantified chemical elements were declared in all of the products: sodium (Na) and phosphorus (P). Next most frequently declared was magnesium (Mg) in Cansino, and in both Sputnik V-I and Sputnik V-II. Potassium (K) and aluminum (Al) were each declared in only one of the products — namely, in Pfizer and Sinopharm, respectively. This means that 55 of the chemical elements listed in Table 1 were undeclared. Adding to those 55 the seven other elements known from other published reports, the latest findings from Diblasi et al. (2024), bring the number of known undeclared elements to 62.

Among the most toxic, and therefore the most interesting of the undeclared chemical elements are all 11 of the heavy metals and the 12 most plentiful of the 15 lanthanides. Probably it is just a coincidence that the “rare earth” elements discovered in the COVID-19 injectables contain 18 of the named chemical elements referred to as “non-fuel minerals on which the US depends heavily for imports” as mentioned in *The Kissinger Report* in 1975 — specifically, “aluminum, copper, iron, lead, nickel, tin, uranium, zinc, chromium, vanadium, magnesium, phosphorous, potassium, cobalt, manganese, molybdenum, tungsten, and titanium”. All of those chemical elements, perhaps coincidentally, were found by Diblasi et al. in the COVID-19 injectables, and were singled out as plentiful in the “known reserves” of the “lesser developed countries (LDCs)” targeted in three distinct sections devoted to anti-fertility measures in *The Kissinger Report* in 1975: (1) “Action to Create Conditions for Fertility Decline: Population and a Development Assistance Strategy” (pp. 85-105), and (2) “Functional Assistance Programs to Create Conditions for Fertility Decline” (pp. 92-102); and (3) “Research to Improve Fertility Control Technology” (pp. 108-120). Among the recommended methods to be exploited were: “oral contraceptives”, “intrauterine devices”, “sterilization of men and women”, “injectable contraceptives for women”, “male contraceptive”, and finally “abortion”. About the latter, the authors say: “No country has reduced its population growth without resorting to abortion” (p. 114).

With all of the foregoing in mind, it is the heavy metals and lanthanides in the COVID-19 injectables — not merely individually but collectively — that are of primary interest because of their known uses in self-assembling magnetic and electronic devices that can be programed and activated remotely and that are being studied for military-grade neurological (Deruelle, 2024) and climate engineering applications (Wigington, 2021; Robert F. Kennedy, Jr. & Wigington, 2023). At the same time, research and development are also underway with medical products involving among other things, the whole family of surfactants including the COVID-19 lipid nanoparticle stabilizers, polysorbate 80 and polyethylene glycol, both of which are judged critical to the COVID-19 nanotechnology by Pfizer and Moderna to stabilize the lipid nanoparticles (Nance & Meier, 2021). It is known that these surfactants are also toxicants that cause anaphylaxis in some recipients (Coors et al., 2005; Cortés et al., 2021; Nappi et al., 2023; Montero et al., 2024). Also, as Wigington pointed out in his interview with RFK, Jr. (2023; at about 29 minutes and 20 seconds into that conversation), surfactants are important to maintaining the separation of the millions of tons of nanoparticles being sprayed overhead. The surfactants in that spraying effort are needed, Wigington has argued, to keep the aluminum and other reflective particles from coalescing and falling more rapidly to the earth. Once they are on the ground, they can no longer reflect sunlight away from the surface, but,

Table 1
The Instrument and Method Detection Limits for the ICP-MS with the Aligent 7500cx as Applied by Diblasi et al. (2024) to the Various COVID-19 Products They Examined

Chemical Elements Measured				Instrument Detection Limit (µg/L) for Date of Analysis			Method Detection Limit (µg/L) for Date of Analysis			Maximum (µg/L)	Minimum (µg/L)	If Min < MDL Return 0, Else 1	Date Minimum Found
#	Name	Symbol	Isotope	11/03/23	12/27/23	01/03/24	11/03/23	12/27/23	01/03/24				
1	Lithium	Li	7	0.006254	0.01343	0.01343	4.43	0.013	0.01	62	12	1	11/3/23
2	Boron	B	11	0.07773	0.1448	0.1448	0.56	0.026	0.1	2500	20	1	11/3/23
3	Sodium	Na	23	2.052	0.6285	0.6285	450	0.0064	2000	58000000	180000	1	1/3/24
4	Magnesium	Mg	24	0.04068	0.158	0.158	170	0.58	3000	870000	170	1	12/27/23
5	Aluminum	Al	27	0.1377	0.1834	0.1834	17	4300	3000	3100000	61	1	11/3/23
6	Phosphorus	P	31	ND	0.8834	0.8834	ND	15000	50000	6700000	33000	1	12/27/23
7	Potassium	K	39	9.929	0.8043	0.8043	3100	5400	5000	64000000	5100	1	11/3/23
8	Calcium	Ca	43	2.486	0.7107	0.7107	18	1000	1000	5000	1700	1	12/27/23
9	Titanium	Ti	48	0.03974	0.03974	0.03974	ND	0.0083	20000	9500	56	1	12/27/23
10	Vanadium	V	51	0.00125	0.001513	0.001513	0.13	0.0082	0.5	26	1.7	1	11/3/23
11	Chromium	Cr	52	0.00548	0.01173	0.01173	4	0.011	3	110	21	1	11/3/23
12	Manganese	Mn	55	0.01456	0.0037	0.0037	8.4	0.00045	8	19	3.6	1	12/27/23
13	Iron	Fe	57	0.06253	0.5573	0.5573	21	0.38	400	2400	31	1	11/3/23
14	Nickel	Ni	58	0.002611	0.01149	0.01149	15	0.003	4	51	4.8	1	1/3/24
15	Cobalt	Co	59	0.000456	0.000608	0.000608	0.095	0.0013	0.06	2.6	0.16	1	1/3/24
16	Copper	Cu	63	0.01261	0.01463	0.01463	4100	0.0039	2000	170	34	1	11/3/23
17	Zinc	Zn	65	0.03773	0.185	0.185	210	0.064	40	4600	140	1	12/27/23
18	Gallium	Ga	71	0.000239	0.001073	0.001073	0.024	0.000082	0.1	7.7	0.1	1	11/3/23
19	Arsenic	As	75	0.005272	0.007278	0.007278	0.44	0.00055	6	28	1.31	1	11/3/23
20	Selenium	Se	79	0.1418	0.1541	0.1541	23	0.0024	4	68	4.1	1	12/27/23
21	Rubidium	Rb	85	0.001686	0.002151	0.002151	0.68	0.00027	1	3.2	0.54	1	12/27/23
22	Strontium	Sr	88	0.002984	0.000459	0.000459	3.29	0.00017	0.6	17	0.3	1	12/27/23
23	Yttrium	Y	89	0.001025	0.001042	0.001042	0.091	ND	0.04	0.22	0.15	1	11/3/23
24	Zirconium	Zr	91	ND	0.00166	0.00166	ND	12	60	550	550	1	12/27/23
25	Niobium	Nb	93	ND	0.001082	0.001082	ND	0.000063	7	2.2	0.2	1	12/27/23

26	Molybdenum	Mo	96	0.01508	0.01566	0.01566	2.1	0.0018	2	13	2.8	1	12/27/23
27	Ruthenium	Ru	101	0.000414	0.001567	0.001567	0.00047	0.0016	0.002	0.017	0.00084	1	11/3/23
28	Rhodium	Rh	103	7.95E-05	0.00052	0.00052	0.069	0.000039	0.04	0.044	0.044	1	1/3/24
29	Palladium	Pd	105	0.000695	0.004215	0.004215	0.021	0.00011	0.1	7.6	0.027	1	11/3/23
30	Silver	Ag	107	0.000316	0.001261	0.001261	0.6	0.00039	0.7	5.1	5.1	1	12/27/23
31	Cadmium	Cd	112	0.001312	0.001381	0.001381	0.98	0.0004	0.8	10	2.3	1	1/3/24
32	Tin	Sn	118	0.03164	0.0133	0.0133	0.017	0.0083	30	88	0.29	1	11/3/23
33	Antimony	Sb	121	0.000493	0.001395	0.001395	0.92	0.000015	0.3	3.2	0.43	1	1/3/24
34	Tellurium	Te	127	0.005304	0.01355	0.01355	0.32	0.014	0.01	0.4	0.4	1	1/3/24
35	Barium	Ba	137	0.0129	0.001461	0.001461	7.21	0.0016	8	920	2.8	1	12/27/23
36	Lanthanum	La	139	0.000711	0.001045	0.001045	0.26	0.00064	0.001	3.5	0.055	1	1/3/24
37	Cerium	Ce	140	0.00069	0.001223	0.001223	0.16	0.0013	0.2	62	0.17	1	11/3/23
38	Praseodymium	Pr	141	0.000146	8.25E-05	8.25E-05	0.024	0.000064	0.01	0.14	0.018	1	1/3/24
39	Neodymium	Nd	144	0.00053	0.000768	0.000768	0.082	0.00001	0.05	0.16	0.14	1	1/3/24
40	Samarium	Sm	150	0.001708	0.00117	0.00117	0.037	0.000033	0.0009	0.044	0.025	1	1/3/24
41	Europium	Eu	152	0.000277	0.000293	0.000293	0.014	0.0007	0.0003	0.025	0.019	1	11/3/23
42	Gadolinium	Gd	157	0.000266	0.000524	0.000524	0.04	0.00018	0.0005	0.3	0.023	1	1/3/24
43	Terbium	Tb	159	8.79E-05	0.000238	0.000238	0.00014	0.00024	0.0002	0.011	0.00024	1	11/3/23
44	Dysprosium	Dy	162	0.000537	0.001398	0.001398	0.012	0.00081	0.001	0.026	0.0051	1	1/3/24
45	Holmium	Ho	165	0.000236	0.000468	0.000468	0.0045	0.00039	0.0005	0.0056	0.0045	1	11/3/23
46	Erbium	Er	167	0.000269	0.000389	0.000389	0.0088	0.000031	0.0004	0.47	0.0028	1	1/3/24
47	Ytterbium	Yb	173	0.000327	0.001138	0.001138	0.0024	0.0011	0.001	0.015	0.0057	1	11/3/23
48	Hafnium	Hf	178	0.005706	0.02351	0.02351	0.041	0.00013	3	37	2	1	12/27/23
49	Wolfram	W	183	ND	0.000485	ND	ND	0.0016	0.7	11	1.9	1	12/27/23
50	Platinum	Pt	195	0.000734	0.001652	0.001652	0.26	0.000064	0.002	2.2	0.29	1	1/3/24
51	Gold	Au	197	0.003859	0.009267	0.009267	0.028	0.00033	0.4	3.9	0.43	1	1/3/24
52	Mercury	Hg	200	0.003046	ND	ND	0.059	0.0052	0.4	13	13	1	1/3/24
53	Thallium	Tl	204	0.04055	0.004346	0.004346	0.29	0.000042	0.2	0.69	0.2	1	12/27/23
54	Lead	Pb	208	0.000886	0.004939	0.004939	6.4	0.29	30	130	24	1	11/3/23
55	Bismuth	Bi	209	0.005386	0.00369	0.00369	0.039	0.0037	0.004	12	12	1	12/27/23
56	Thorium	Th	232	0.002572	0.001006	0.061111	0.019	0.00049	0.001	9.9	0.6	1	12/27/23
57	Uranium	U	238	8.55E-05	0.000651	0.000651	0.00062	0.00065	0.0007	0.25	0.022	1	11/3/23

as Wigington notes, they are nevertheless toxic to virtually every living thing on the planet. The surfactants in the millions of tons of metallic materials in chemtrails represented to the public as “vapor trails” from jet engines, can only increase the toxicity of the dust being sprayed from the large aircraft flying at high altitudes (Wigington, 2021).²

On the Competence of the Diblasi Team

Claims by Mike Adams that the Diblasi team had to be incompetent researchers or devious frauds hinged on two observations — an almost trivial one, that was true of a typographical error, and a non-trivial one, that would have been a showstopper if it were true. The typo in question was real enough but could not sustain the weighty superstructure that “the [Health Ranger](#)” tried to build upon it. It is absurd to use such an error, first to argue for the incompetence of the entire team of authors, not to mention the peer-reviewers who approved it for publication, and then to go on, as Adams does, to claim that the authors in spite of their alleged incompetence have been clever enough to collude with one another and to “dupe” the well-qualified editors of the severely peer-reviewed *IJVT* to foist “a hoax” on those editors and on the general public. He says, “when I see 0.0005 ppb [parts per billion] of holmium, I’m like, are you kidding me? you can’t even, your instrument can’t even do that. You can’t even show me that your instrument can discern that ... at that level. . . . I actually have two ICP-MS instruments, one of them is a relatively new model with very good sensitivity and I would not even... I would not publish a number like that of 0.0005 because any experienced laboratory scientist is going to come along and say what I am saying because I . . . that’s nonsense . . . can you even prove that your instrument can see that?” However, from Table 1 the entries on line 45 show that the limit of detection for holmium was 19 times smaller than the reported minimal concentration quantified by ICP-MS as reported by Diblasi et al. in their Table 6 on page 1379 in a sample of the Moderna product 045C22A. Given that the limit of detection is generally based on background noise in blank samples that do not contain any of the analytes of the fluids to be measured, it seems that Adams has generalized from his own experience, possibly in an incorrect manner. His conclusions also are evidently mistaken.

He writes (2024):

The study is a hoax. The ICP-MS instrument can’t detect “chemicals” in the first place [because Adams asserts that “chemicals” is a word that can only refer to molecules consisting of two or more “chemical elements” — which claim, incidentally, from a linguistic perspective is a novel contribution from “the [Health Ranger](#)” to the English language]. The reported numbers for many elements are far beyond the sensitivity capabilities of the instrument.

Actually, Diblasi et al. never claimed they were using ICP-MS to detect “chemicals”, in the new and special sense invented *de novo* for English speakers by “the [Health Ranger](#)”; rather, they were always referring throughout their work to “chemical elements”. Never at any point do they refer to complex molecules of combined elements from the Periodic Table which the editors would have translated as molecules, not as “chemical elements” nor with the vague term “chemicals”. Diblasi et

² Adams (2018), interestingly, has long subscribed to the theory that chemtrails, and more recently the COVID-19 injectables, are part of a depopulation agenda and at 14 minutes and 12 seconds into his talk he refers to the study by the Kenyan Catholic Bishops which were headed up by obstetricians Wahome Ngare, MD, and Stephen Karanja, MD who also were coauthors of the study published in 2017 by Oller et al. detailing the population control efforts of the World Health Organization there in Africa. See note 1.

al. were perfectly clear in always referring to “chemical elements” ranging in mass from lithium to uranium. The reported numbers based on our follow up, Table 1, are never “beyond the sensitivity capabilities of the instrument”. It is misleading, we believe, for Adams to imply that the Agilent instrument has “capabilities” of its own as if it could set its own limits rigidly once and forever. Not only can the machine not do that, but according to the expert Agilent community of scholars (Wells et al., 2023), no analyst can be perfectly dogmatic about the limits of detection for any given instrument, much less for its application on a particular occasion given the multiplicity of factors that introduce inevitable uncertainty into measured outcomes (Giussani et al., 2024). What is more, given our own interest in measurement theory, the century of work culminating in the still imperfect state-of-the-art in spectroscopic analytical chemistry (Belter et al., 2014; Giussani et al., 2024) shows incontrovertibly that the categorical statements made by Adams about “limits of detection” are just ill-informed.

There are multiple variables that must be managed and the relation of signal-to-noise in the apparatus itself is subject to variation dependent on more than one of them. Among the variables to be taken into account on any given run according to Wells et al. (2023) are: (1) the amount of fluid to be analyzed, (2) what portion of it is transferred to the gas chromatography (GC) column (a critical component of the instrument), (3) the background noise in the system at any given point in time, (4) the efficiency of ionization that takes place as the material is passed through the GC column, (5) variability in ion extraction as the mass passes through the analyzer, and (6) variability in the recorded detection signal showing the number of ions measured. Of course, the extent to which the fluid being analyzed may have been diluted, its temperature, and that of the setting in which the assessment takes place must also be taken into consideration. With all those factors in play, as Wells et al. explain:

There are a number of different detection limits commonly used. These include the instrument detection limit (IDL), the method detection limit (MDL), the practical quantification limit (PQL), and the limit of quantification (LOQ). Even when the same terminology is used, there can be differences in the LOD according to nuances of what definition is used and what type of noise contributes to the measurement and calibration. There is much confusion regarding figures of merit for instrument performance such as sensitivity, noise, signal-to-noise ratio and detection limits. An understanding of the factors that contribute to these figures of merit and how they are determined is important when estimating and reporting detection limits (Wells, 2024, p. 2).

More recently, to bring the discussion fully up-to-date, Giussani et al. (2024) citing the former work of Belter et al. refer also to the problematic fact that few authors currently note the uncertainty in their own claims about chemical elements detected and quantified by, for instance, ICP-MS:

Back in 1997, Paul de Bièvre wrote a very strong statement concerning the importance of providing the uncertainty of analytical results. “So, a result without reliability (uncertainty) statement cannot be published or communicated because it is not (yet) a result. I am appealing to my colleagues of all analytical journals not to accept papers anymore which do not respect this simple logic” (Bièvre, 1997).

In reading the relevant theoretical research, what can easily be understood with a bare minimum of statistical background, nothing more complex than Student’s *t-ratio*, plus an understanding of signal-to-noise ratio, it becomes painfully clear that the idea suggested by “the Health Ranger” that there

exist hard and fast determinate limits of detection for the isotopes of chemical elements found by Diblasi et al. with virtually no uncertainty whatsoever is false. Researchers familiar with the processes and theory underlying ICP-MS — or scientific measurement in any domain whatsoever — know that the various limits of detection for any given run of chemicals through the instrument can vary greatly dependent on the many factors making every problem of determining limits of detection, quantification, or a particular method to be applied (or assessed for accuracy) on a given occasion into a unique multivariate problem as detailed by Belter et al. (2014) and Giusani et al. (2024).

For our particular purposes in Table 1, we report the measured/estimated instrument detection limits, and the method detection limits, on the three dates when the COVID-19 products were sampled. The limits of detection for the instrument itself as well as the methods applied on a particular occasion to one or more samples of analyte, must be determined carefully by analysts who know their way around the device and have experience working with it. With that in mind, we are now more grateful than ever for the “Editor’s Note” at the top of the Baletti article in *The Defender* which alerted us to the entertaining world of Mike Adams and the laboratory of “the [Health Ranger](#)”. His “harsh” comments have only increased our confidence in the veracity and competence of the Diblasi et al. team. He also made some valid points in passing.

Mike’s argument that chemical elements as building blocks for physical molecules are far less complex, and less loaded with information than are proteins, of course, is true. Diblasi et al., in their analyses, however, were not examining proteins. Moreover, we would extend Mike’s argument to note that the biosemiotic systems that govern the formation of bodily proteins, organelles, cells, tissues, and organ systems are at every level more complex than the building blocks at the just preceding level and the level of particular chemical elements can be construed as very nearly the most basic. That construal, however, is complicated by the almost incredible fact that the phenomena that take place at the subatomic level are poorly understood and apparently entirely different from those above that level (Feynman, 1961). However, whatever the additional complexities may ultimately turn out to be, none that are known or likely to be discovered can render irrelevant the building blocks at the level of the Periodic Table of chemical elements. Neither can the increasing complexity of the higher biosemiotic levels ever justify altogether dispensing with the basic building blocks. Those chemical elements, and the smaller entities or waves, or packets of energy, of which they consist cannot be entirely dismissed as inconsequential.

The ultimate reasons for our decision not to retract the Diblasi et al. work are contained in the three right-most columns of Table 1. The most important measure in our judgment is found in the next to last column reading from left to right. The critical values reported there must be either 1 or 0. If the minimum tabled value for any detected and quantified chemical element in the original work of Diblasi et al. were actually smaller than the limit of detection established by the analyst(s) on the particular date the measure was taken (though it never is), a 0 (zero) should appear in the next to last column to the right in Table 1. That is the value we should find on almost every row, or at least on multiple rows if as Mike Adams claimed many of the quantities reported by Diblasi et al. are smaller than any detectable by the Agilent 7500cx. In fact, Adams is wrong in every single instance. To verify this, the reader only needs to check the right most column for the respective date when the run took place that turned up the smallest quantity of the particular chemical element represented on any given row and compare it with the MLD (the estimated limit of detection for the method) on the date when that quantity was estimated. As a result, the claim by Mike Adams that reported values exceeded the limits of detection of the instrument is false.

According to one of the historically reviewed approaches to calculating the limits of detection by Belter et al. (2014, p. 610, Table 3), the critical level of the signal-to-noise ratio is first determined from blanks containing none of the known analyte, but only a fluid in all other respects as similar as possible to the fluid to be analyzed containing the analyte that is to be quantified. The mean of the measured analyte in those blanks, which should be about zero, is first calculated, and then the standard deviation of that mean following the approach of Currie (1999) would be multiplied by 3.3 and added to the approximate zero-order mean of the blanks to get a reasonable estimate of a limit of detection for the machine. The value 3.3 follows from the proof by Student (1908), who was actually William Sealy Gosset, that the true value of the limit sought must fall within 3.3 standard deviations of the measured blanks more than 99% of the time if more than a certain number of measures, in the neighborhood of 20 or more, are taken. To estimate a reasonable limit of quantification, by Currie's method, the limit of detection would be multiplied by 10 as a rule of thumb. The latter multiplication may be judged to be a reasonable guess, but has no strict mathematical justification as far as we know.

Nevertheless, if we use Currie's approach, and consider the estimated limit of quantification as a lower boundary for reporting measured quantities in the Diblasi research, the arguments of Mike Adams are reduced to nonsense. For instance, take his claims about holmium in his own words: "I'm like, are you kidding me? you can't even, your instrument can't even do that. You can't even show me that your instrument can discern that ... at that level... 5 ppt [parts per trillion]? of holmium"? The smallest quantity of 0.0045 micrograms per liter of holmium measured by Diblasi et al. on January 3, 2024 would actually be 9.62 times greater than the estimated limit of detection for the Agilent 7500cx they were using. Or, given that the limit of detection for the method on that date was 0.0005 again the measured value is exactly 9 times greater than the detection limit of the method for that date. Given that there are many reasons why the measured standard deviation for blanks on a given date could be greater or lesser than on any other date, rigid comparisons of limits for the instrument itself at a particular time and limits of the method on a particular date are not reasonable. Nevertheless, for all the measured limits for the instrument and the method on the three dates covered in the respective columns of Table 1 from the data of Diblasi et al., there was never a case where any measured quantity was smaller than either the instrument detection limit or the method detection limit. Adams appears to have been mistaken concerning limits on all counts.

A Check with the Web of Science

Whereas "the [Health Ranger](#)" says he also has a 7500 and a more recent and more powerful vintage of the Agilent line of products, we wondered whether the Agilent 7500cx might just be outdated. To check on that possibility we looked on the Web of Science for applications of that vintage of Agilent instruments in recent investigations of chemical elements in medicines and vaccines. We found that an Agilent 7500 was used by Strohmidel et al. in 2018 along with size exclusion chromatography to identify binding proteins in living organisms that take up the neurotoxic ethyl mercury from thimerosal — see the history of that preservative by Robert F. Kennedy, Jr. (2014), which at the time of that publication was still being used "in the USA and developing countries" in multidose flu vaccines although it had been "banned in the EU since 2001" (p. 100).

It must be noted in passing that mercury is one of the chemical elements detected by Diblasi et al. at 13 µg/L in one of lot 045C22A of one of the samples from Moderna. That amount, incidentally, is

4,268 times greater than the estimated limit of detection for the instrument on that date and 220 times greater than the estimated detection limit for the unique multivariable method applied on that same date. We wonder if “the [Health Ranger](#)” really means that regulatory agencies have no reason to want to know the level of mercury from the thimerosal in vaccines that is injected into the bodies of recipients?

Bringing things up to the present year, we found that an Agilent 7500 was used as recently as 2024 by Rumyantsev et al. to study cultivated hemp. They determined the quantity of certain chemical elements in the dry biomass of replicates of five cultivars of hemp using “biochemical analysis by inductively coupled plasma mass spectrometry (ICP-MS)” with “the 7500” from “Agilent Technologies, United States” following “the manufacturer’s method” (p. 774).

In addition to satisfying ourselves that the Agilent 7500cx is still in current use by professional chemometricians, another angle of verification, one following recommendations of Belter et al. (2014) in their historical review and also Giussani et al. (2024) is to compare the obtained estimates of limits of detection for the instrument used by Diblasi et al. with similar estimated by other independent laboratories for some critical, well-studied chemical element of interest. The probable reliability of the estimates for a particular critical element, for instance, can be confirmed (or disconfirmed) if it agrees (or does not agree) with multiple estimates independently taken by different analysts working with the same or a similar vintage Agilent 7500 estimating detection limits for the same chemical element. To accomplish that purpose, one that is universally accepted in statistical (scientific) measurements in general, we found multiple estimates for arsenic.

Interestingly, in his condemnation of the Diblasi team and the reviewers they rode in on, “the [Health Ranger](#)” also brought up arsenic saying it is common in very small quantities in sea salt, etc. In doing so, it seems to us that he was implicitly contradicting his false claim that there are no regulations whatsoever concerning particular chemical elements singled out from the Periodic Table by any regulatory agencies in the world. The truth is that regulatory agencies, in fact, are obliged to take special interest in certain chemical elements in particular, and, interestingly, arsenic is one of them. With respect to that one, we found a review by Rajaković et al. (2012) reporting on a number of approaches for estimating the limit of detection, most comparable to the term “IDL” (instrument detection limit) in Table 1. In their review and meta-analysis of eight distinct published works, following the industry standard recommendations of Currie (Currie, 1968, 1999) and his successors, especially, the US Environmental Protection Agency (2000) — incorporating the relatively simple but profound statistical requirements flowing from the central limit theorem (Pólya, 1920; Le Cam, 1986), Student’s *t*-ratio (Student, actually William Sealy Gosset, 1908), the Neyman-Pearson theory of hypothesis testing and error types I and II (Neyman et al., 1997) — their tabulated data could be used to confirm or disconfirm the reliability and approximate validity (or lack thereof) in the limits of detection determined by Diblasi et al. for arsenic. Table 2 summarizes the critical results from the eight published studies taken in the order in which they were presented by Rajaković et al. (2012).

When making the invidious comparisons, ones that could vindicate or condemn, the limits of detection for the Agilent 7500cx as applied on November 3, 2023 and December 27, 2023 determined by the analyst(s) working with the Diblasi et al. team, it is important to keep in mind

Table 2
Multiple Estimates of the Trace Analysis for Arsenic by ICP-MS from Various Laboratories as Summarized by Rajaković et al. (2012)
Compared Against Estimates by Diblasi et al. (2024)

#	Sources for the Limit of Detection Estimates Reported by Rajaković et al. (2012) for Arsenic in Their Table 4 (p. 85) Compared Against the Values Determined by Diblasi et al. (2024) as Given in Table 1 Above	Instrument Limit of Detection in µg/L	Instrument Detection Limit in µg/L by Diblasi et al. for November 3, and December 27, 2023
1	a) Currie, L. A. (1997). Detection: International update, and some emerging di-lemmas involving calibration, the blank, and multiple detection decisions ¹² . <i>Chemometrics and Intelligent Laboratory Systems</i> , 37(1), 151–181. https://doi.org/10.1016/S0169-7439(97)00009-9 b) Voigtman, E. (2008). Limits of detection and decision. Part 1. <i>Spectrochimica Acta Part B: Atomic Spectroscopy</i> , 63(2), 115–128. https://doi.org/10.1016/j.sab.2007.11.015	0.0022	.005272 .007278
2	IUPAC, Compendium of Chemical Terminology—The Gold book, 1997, /http://goldbook.iupac.org/S	0.0039	.005272 .007278
3	a) Currie, L. A. (1995). Nomenclature in evaluation of analytical methods including detection and quantification capabilities (IUPAC Recommendations 1995). <i>Pure and Applied Chemistry</i> , 67(10), 1699–1723. https://doi.org/10.1351/pac199567101699 b) Miller, J., & Miller, J. C. (2005). <i>Statistics and Chemometrics for Analytical Chemistry</i> (5th edition). Pearson Education Canada. https://www.amazon.com/Statistics-Chemometrics-Analytical-Chemistry-5th/dp/0131291920	0.0028	.005272 .007278
4	Komorowicz, I., & Baralkiewicz, D. (2011). Arsenic and its speciation in water samples by high performance liquid chromatography inductively coupled plasma mass spectrometry—Last decade review. <i>Talanta</i> , 84(2), 247–261. https://doi.org/10.1016/j.talanta.2010.10.065	0.0035	.005272 .007278

5	Komorowicz, I., & Baralkiewicz, D. (2011). Arsenic and its speciation in water samples by high performance liquid chromatography inductively coupled plasma mass spectrometry—Last decade review. <i>Talanta</i> , 84(2), 247–261. https://doi.org/10.1016/j.talanta.2010.10.065	0.0025	.005272 .007278
6	a) Abraham, J. (2010). International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use. In C. Tietje & A. Brouder (Eds.), <i>Handbook of Transnational Economic Governance Regimes</i> (pp. 1041–1053). Brill Nijhoff. https://doi.org/10.1163/ej.9789004163300.i-1081.897 b) Miller, J., & Miller, J. C. (2005). <i>Statistics and Chemometrics for Analytical Chemistry</i> (5th edition). Pearson Education Canada. https://www.amazon.com/Statistics-Chemometrics-Analytical-Chemistry-5th/dp/0131291920	0.0116	.005272 .007278
7	a) Abraham, J. (2010). International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use. In C. Tietje & A. Brouder (Eds.), <i>Handbook of Transnational Economic Governance Regimes</i> (pp. 1041–1053). Brill Nijhoff. https://doi.org/10.1163/ej.9789004163300.i-1081.897 b) Miller, J., & Miller, J. C. (2005). <i>Statistics and Chemometrics for Analytical Chemistry</i> (5th edition). Pearson Education Canada. https://www.amazon.com/Statistics-Chemometrics-Analytical-Chemistry-5th/dp/0131291920	0.0086	.005272 .007278
8	a) Abraham, J. (2010). International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use. In C. Tietje & A. Brouder (Eds.), <i>Handbook of Transnational Economic Governance Regimes</i> (pp. 1041–1053). Brill Nijhoff. https://doi.org/10.1163/ej.9789004163300.i-1081.897 b) Miller, J., & Miller, J. C. (2005). <i>Statistics and Chemometrics for Analytical Chemistry</i> (5th edition). Pearson Education Canada. https://www.amazon.com/Statistics-Chemometrics-Analytical-Chemistry-5th/dp/0131291920	0.0047	.005272 .007278

certain caveats coming from the experts and regulatory authorities who oversee and supposedly regulate the kinds of chemometrics at issue. In his technical paper titled “Detection: International update, and some emerging dilemmas involving calibration, the blank, and multiple detection decisions”, Lloyd A. Currie, wrote in 1997:

The meaning of “detection limits” is perhaps clear to all, in a qualitative sense. That is, the detection limit is commonly accepted as the smallest amount or concentration of a particular substance that can be reliably detected in a given type of sample or medium by a specific measurement process. Within such a general definition, however, lurk many pitfalls in terminology, understanding, and formulation, that have led to several decades of miscommunication among scientists and between scientists and the public (p. 152).

He goes on to point out that “subtle differences in concepts and terminology” are commonly overlooked or unknown, so that almost unbelievably large discrepancies for the measurement of a particular chemical element of interest arise, even when “low-level laboratory intercomparisons are made”. He illustrates his argument with multiple instances of huge variabilities in estimated limits of detection of arsenic, for example, in veterinary medical contexts. One such illustration was taken from

the international atomic energy agency’s interlaboratory comparison of arsenic in horse kidney $\mu\text{g/g}$ level, [in which comparisons] several laboratories failed to detect the As [arsenic], yet their reported “detection limits” lay far below quantitative results reported by others; and the range of reported values spanned nearly five orders of magnitude (p. 153).

For that reason, even in the best theoretical work up to the current year, by Giussani et al. (2024), on the subject of chemometrics, they conclude:

even though methods for modelling errors in data and uncertainty in results are known, there is no unanimity among scientists in the field [of chemometrics], and often the proposed methods lack statistical validation (p. 3).

Certainly, we do not expect to resolve such difficult and technical controversies in this response to the criticisms published against Diblasi et al. However, we can confirm the measures Diblasi et al. obtained for the limit of detection of arsenic with an Agilent 7500 machine by comparing their obtained estimates from two different dates with eight other estimates of limits of detection obtained from Agilent 7500 instruments in various published works cited in Table 2. The eight studies producing the estimates in the third column of Table 2 are those cited by Rajaković et al. (2012). In the fourth and rightmost column of Table 2 are estimates nine and ten obtained from the 7500cx instrument used by Diblasi et al. on November 3 and December 27 of 2023.

It is evident by comparing the values across the different studies that they are all in the same vicinity. The troubling uncertainty of such estimates is largely laid to rest when independent analysts (or researchers) working at distinct laboratories with different instruments come into agreement. It is also noteworthy that the particular chemical element in focus by Rajaković et al. (2012) is one known to be particularly toxic. For that reason, along with chemical elements like more than a few of the 55 undeclared elements quantified by Diblasi et al. — aluminum, chromium, nickel, cobalt, copper, zinc, selenium, rubidium, strontium, yttrium, niobium, molybdenum, ruthenium, rhodium, palladium, silver, cadmium, tin, antimony, tellurium, barium, lanthanum, cerium, praseodymium,

neodymium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, ytterbium, hafnium, wolfram, platinum, mercury, thallium, lead, bismuth, thorium, and uranium — arsenic is one of those singled out along with lead, cadmium, mercury, and uranium for special attention by regulatory authorities. Given that about 0.145 grams of arsenic will kill an adult weighing about 80,000 grams (Collaborative for Health & Environment, 2024), the proportionate amount of arsenic to kill an average adult human expressed in micrograms per liter is approximately 1812.5 µg/L.

With that in mind, considering that arsenic can be detected in the COVID-19 injectables at levels of about 0.005 µg/L to 0.007 µg/L according to the Diblasi et al. findings, there is no sound reason to doubt any of the rest of the figures they report for the other 54 undeclared chemical elements in the COVID-19 products. Whereas “the [Health Ranger](#)” may be correct in arguing that some of the undeclared components are merely contaminants, and some, like arsenic are far below the level of a killing dose, the more obvious threat is almost certainly found in the interactions among the elements and in the combination of whichever ones are found together in any one of the given products. Perhaps no one of the results by itself is cause even for concern, much less for alarm, but combining all of them together and taking into account the global disaster unfolding before the eyes of thoughtful independent researchers is a different matter.

Conclusion

At the end of this day, as we approach the beginning of 2025, with only two days left in the year 2024, we believe it would be unwise, even absurdly irresponsible for competent researchers with access to the right kind of laboratory equipment, not to examine critically and intensively the actual chemical elements in the COVID-19 products, seeking to replicate and or improve on what Diblasi et al. have already done. In view of the harms the COVID-19 products have done, and are known to be doing, the sort of investigation done by Diblasi et al. should have, in our opinions individually and collectively, been required by regulatory agencies long before any of those products were considered for human use.

Acknowledgments

The authors thank Mike Adams, Chris Exley, and Brian Hooker for spurring us, each in their own special way, to write this defense not only of the Diblasi et al. work, but also of the editors who reviewed it prior to its publication, and of the *IJVT* where it has been published and remains. We are grateful to have received comments along the way from Diblasi and Sangorrín who presumably spoke for themselves as well as Monteverde and Nonis, and we thank co-editors Chris Shaw and Stephanie Seneff for reviewing this work and commenting on it prior to its publication. The writing of it, has no doubt benefitted from all the discussion that has taken place, but the ideas expressed and any undetected errors are our own.

References

Adams, M. (Director). (2018, December 10). *CounterThink with Mike Adams: TERRAFORMING has begun: “Global dimming” plot* [Video recording]. <https://www.youtube.com/watch?v=EEFZdCtSs1Y>

- Adams, M. (2024, October 16). *The CHD-touted science paper claiming “55 undeclared chemical elements” were found in COVID vaccines is a HOAX ... and must be retracted ... here’s why (UPDATED)*. NaturalNews.Com. <https://www.naturalnews.com/2024-10-16-the-chd-touted-science-paper-claiming-55-undeclared-chemical-elements-were-found-in-covid-vaccines-is-a-hoax-and-must-be-retracted-heres-why.html>
- Ainscough, M. J. (2002). The technology of genetic engineering applied to biowarfare and bioterrorism. *The Counterproliferation Papers Future Warfare Series No. 14*, 50. <https://fas.org/irp/threat/cbw/nextgen.pdf>
- Baletti, B. (2024, October 15). *55 Undeclared Chemical Elements—Including Heavy Metals—Found in COVID Vaccines*. Children’s Health Defense. <https://childrenshealthdefense.org/defender/undeclared-chemicals-heavy-metals-covid-vaccines/>
- Banco, E., Furlong, A., & Pfahler, L. (2022, September 14). *How Bill Gates and partners used their clout to control the global COVID response—With little oversight*. Politico. <https://www.politico.com/news/2022/09/14/global-covid-pandemic-response-bill-gates-partners-00053969>
- Belter, M., Sajnog, A., & Baralkiewicz, D. (2014). Over a century of detection and quantification capabilities in analytical chemistry—Historical overview and trends. *TALANTA*, 129, 606–616. <https://doi.org/10.1016/j.talanta.2014.05.018>
- Benzi Cipelli, R., Giovannini, F., & Pisano, G. (2022). Dark-field microscopic analysis on the blood of 1,006 symptomatic persons after anti-COVID mRNA injections from Pfizer/BioNtech or Moderna. *International Journal of Vaccine Theory, Practice, and Research*, 2(2), 385–444. <https://doi.org/10.56098/ijvtpr.v2i2.47>
- Bièvre, P. D. (1997). Measurement results without statements of reliability (uncertainty) should not be taken seriously. *Accreditation and Quality Assurance*, 2(6), 269–269. <https://doi.org/10.1007/s007690050147>
- Bill and Melinda Gates Foundation. (2020). *Bill and Melinda Gates Pledge \$10 Billion in Call for Decade of Vaccines*. [http://www.gatesfoundation.org/Media-Center/Press-Releases/2010/01/Bill-and-Melinda-Gates-Pledge-\\$10-Billion-in-Call-for-Decade-of-Vaccines](http://www.gatesfoundation.org/Media-Center/Press-Releases/2010/01/Bill-and-Melinda-Gates-Pledge-$10-Billion-in-Call-for-Decade-of-Vaccines)
- Blain, L. (2024, December 3). “Self-assembling” electronics: A wild new manufacturing process. New Atlas. <https://newatlas.com/manufacturing/self-assembling-electronics/>
- Bryant, L., Carver, L., Butler, C. D., & Anage, A. (2009). Climate change and family planning: Least developed countries define the agenda. *Bulletin of the World Health Organization*, 87(11), 852–857. <https://doi.org/10.2471/BLT.08.062562>
- Centers for Disease Control and Prevention. (2020). *Tuskegee Study—Timeline—CDC - NCHHSTP*. U.S. Public Health Service Syphilis Study at Tuskegee. <https://www.cdc.gov/tuskegee/timeline.htm>
- Central limit theorem. (2021). In *Wikipedia*. https://en.wikipedia.org/w/index.php?title=Central_limit_theorem&oldid=1014457764
- Cohen, A. (2021, December 10). *A bill gates venture aims to spray dust into the atmosphere to block the sun. What could go wrong?* Forbes. <https://www.forbes.com/sites/arielcohen/2021/01/11/bill-gates-backed-climate-solution-gains-traction-but-concerns-linger/>
- Collaborative for Health & Environment. (2024). *Arsenic*. Collaborative for Health & Environment. <https://www.healthandenvironment.org/environmental-health/environmental-risks/chemical-environment-overview/arsenic>
- Coors, E. A., Seybold, H., Merk, H. F., & Mahler, V. (2005). Polysorbate 80 in medical products and nonimmunologic anaphylactoid reactions. *Annals of Allergy, Asthma & Immunology*, 95(6), 593–599. [https://doi.org/10.1016/S1081-1206\(10\)61024-1](https://doi.org/10.1016/S1081-1206(10)61024-1)
- Cortés, H., Hernández-Parra, H., Bernal-Chávez, S. A., Prado-Audelo, M. L. D., Caballero-Florán, I. H., Borbolla-Jiménez, F. V., González-Torres, M., Magaña, J. J., & Leyva-Gómez, G. (2021). Non-ionic surfactants for stabilization of polymeric nanoparticles for biomedical uses. *Materials*, 14(12), Article 12. <https://doi.org/10.3390/ma14123197>

- Currie, L. A. (1968). Limits for qualitative detection and quantitative determination. Application to radiochemistry. *Analytical Chemistry*, 40(3), 586–593. <https://doi.org/10.1021/ac60259a007>
- Currie, L. A. (1999). Detection and quantification limits: Origins and historical overview1. *Analytica Chimica Acta*, 391(2), 127–134. [https://doi.org/10.1016/S0003-2670\(99\)00105-1](https://doi.org/10.1016/S0003-2670(99)00105-1)
- Deruelle, F. (2020). The different sources of electromagnetic fields: Dangers are not limited to physical health. *Electromagnetic Biology and Medicine*, 39(2), 166–175. <https://doi.org/10.1080/15368378.2020.1737811>
- Deruelle, F. (2022). The pharmaceutical industry is dangerous to health. Further proof with COVID-19. *Surgical Neurology International*, 13, 475. https://doi.org/10.25259/SNI_377_2022
- Deruelle, F. (2024). Microwave radiofrequencies, 5G, 6G, graphene nanomaterials: Technologies used in neurological warfare. *Surgical Neurology International*, 15(439), 1. [This link](#)
- Dowd, E. (2022). *Cause Unknown: The Epidemic of Sudden Deaths in 2021 and 2022*. Skyhorse Publishing. <https://www.skyhorsepublishing.com/9781510776395/cause-unknown/>
- Dubé, I. D., & Cournoyer, D. (1995). Gene therapy: Here to stay. *CMAJ: Canadian Medical Association Journal = Journal de l'Association Médicale Canadienne*, 152(10), 1605–1613. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1337857/>
- Feynman, R. (1961). There's Plenty of Room at the Bottom. *Miniaturization, Reprinted in Journal of Microelectromechanical Systems, Volume: 1, Issue: 1, (March 1992), pp. 60–66, 282–287*. <https://doi.org/10.1109/84.128057>
- Fleming, D. R. M. (2021). *Is COVID-19 a Bioweapon?: A Scientific and Forensic Investigation* (1st edition). Skyhorse. <https://www.barnesandnoble.com/w/is-covid-19-a-bioweapon-richard-m-fleming/1139680021>
- Gates, B. (2010, February 20). *Bill Gates: Innovating to zero!* TED.Com. http://www.ted.com/talks/bill_gates
- Gates, B., & Baker, G. (2019). *Bill Gates on the Best Investment He Ever Made*. WSJ. <https://www.wsj.com/video/series/wsj-at-large/bill-gates-on-the-best-investment-he-ever-made/DB5BD2E1-EDF5-4383-BD54-DEF18E11B830>
- Giussani, B., Gorla, G., Ezenarro, J., Riu, J., & Boqué, R. (2024). Navigating the complexity: Managing multivariate error and uncertainties in spectroscopic data modelling. *TrAC Trends in Analytical Chemistry*, 181, 118051. <https://doi.org/10.1016/j.trac.2024.118051>
- Harari, Y. N. (Director). (2023, May 14). *AI and the future of humanity* [Video recording]. <https://www.youtube.com/watch?v=LWiM-LuRe6w>
- Harari, Y. N., & World Economic Forum (Directors). (2022, March 7). *We are now hackable animals* [Video recording]. <https://www.youtube.com/watch?v=SFRZDwljiAI>
- Harris, N. (2020, November 17). Klaus Schwab: 'Great Reset' Will Lead to Transhumanism. *Nwo Report*. <https://nworeport.me/2020/11/17/klaus-schwab-great-reset-will-lead-to-transhumanism/>
- Hasan, M. F., & Berdichevsky, Y. (2016). Neural circuits on a chip. *MICROMACHINES*, 7(9), 157. <https://doi.org/10.3390/mi7090157>
- Higgins, A. G. (2010, January 29). *Gates makes \$10 billion vaccines pledge—Boston.com*. Boston.Com. http://archive.boston.com/business/technology/articles/2010/01/29/gates_makes_10_billion_vaccines_pledge/
- Ho, M.-W. (1998). *Genetic Engineering, Dream or Nightmare? The Brave New World of Bad Science and Big Business*. Gateway Books ; Distributed in the USA by Access Publishers Network. [This link](#).
- Huff, A. G. (2022). *The Truth about Wuhan: How I Uncovered the Biggest Lie in History*. Skyhorse. <https://www.amazon.com/Truth-about-Wuhan-Uncovered-Biggest-ebook/dp/B09T545W1H/>
- Huff, A. G., & Lyons, T. (2023). *The Truth about Wuhan with Dr. Andrew Huff*. <https://live.childrenshealthdefense.org/chd-tv/shows/good-morning-chd/the-truth-about-wuhan-with-dr-andrew-huff/>

- Huff, E. (2023, July 7). *Geoengineering (chemtrails) threatens to unleash “unintended consequences” that could be catastrophic for the planet, EU warns*. NaturalNews.Com. <https://www.naturalnews.com/2023-07-07-geoengineering-chemtrails-unleash-unintended-consequences-eu.html>
- Jaynes, E. T. (1957a). Information theory and statistical mechanics. I. *Physical Review*, 106(4), 620–630. <https://doi.org/10.1103/PhysRev.106.620>
- Jaynes, E. T. (1957b). Information theory and statistical mechanics. II. *Physical Review*, 108(2), 171–190. <https://doi.org/10.1103/PhysRev.106.620>
- Jaynes, E. T. (1963). Information theory and statistical mechanics. In K. W. Ford (Ed.), *Brandeis Summer Institute 1962: Statistical Physics* (pp. 181–218). W A Benjamin, Inc.
- Jeon, K.-Y., Park, S., Broudy, D., & Joo, H.-D. (2023). A presentation of analyses of COVID-19 vaccine samples, blood samples, urine samples, foot bath samples, sitz bath samples, and skin-extract samples. *Journal of Biomedical Research & Environmental Sciences*, 4(2), 188–216. <https://doi.org/10.37871/jbres1663>
- John, G., Sahajpal, N. S., Mondal, A. K., Ananth, S., Williams, C., Chaubey, A., Rojiani, A. M., & Kolhe, R. (2021). Next-Generation Sequencing (NGS) in COVID-19: A Tool for SARS-CoV-2 Diagnosis, Monitoring New Strains and Phylodynamic Modeling in Molecular Epidemiology. *Current Issues in Molecular Biology*, 43(2), 845–867. <https://doi.org/10.3390/cimb43020061>
- Kalds, P., Zhou, S., Cai, B., Liu, J., Wang, Y., Petersen, B., Sonstegard, T., Wang, X., & Chen, Y. (2019). Sheep and goat genome engineering: From random transgenesis to the CRISPR era. *Frontiers in Genetics*, 10, 750. <https://doi.org/10.3389/fgene.2019.00750>
- Kämmerer, U., McCullough, P. A., & Steger, K. (2024). BioNtech RNA-based COVID-19 injections contain large amounts of residual DNA including an SV40 promoter/enhancer sequence. *Science, Public Health Policy and the Law*, 5. <https://publichealthpolicyjournal.com/biontech-rna-based-covid-19-injections-contain-large-amounts-of-residual-dna-including-an-sv40-promoter-enhancer-sequence/>
- Karikó, K., Muramatsu, H., Welsh, F. A., Ludwig, J., Kato, H., Akira, S., & Weissman, D. (2008). Incorporation of pseudouridine into mRNA yields superior nonimmunogenic vector with increased translational capacity and biological stability. *Molecular Therapy: The Journal of the American Society of Gene Therapy*, 16(11), 1833–1840. <https://doi.org/10.1038/mt.2008.200>
- Kell, D. B., Laubscher, G. J., & Pretorius, E. (2022). A central role for amyloid fibrin microclots in long COVID/PASC: Origins and therapeutic implications. *Biochemical Journal*, 479(4), 537–559. <https://doi.org/10.1042/BCJ20220016>
- Kennedy, Jr., R. F. (2014). *Thimerosal: Let the Science Speak: The Evidence Supporting the Immediate Removal of Mercury—A Known Neurotoxin—From Vaccines* (M. D. Harman & M. R. Herbert, Eds.). <https://www.amazon.com/Thimerosal-Evidence-Supporting-Immediate-Neurotoxin/dp/1634504429>
- Kennedy, Jr., R. F., & Wigington, D. A. (2023, June 7). *US Presidential Candidate Robert F. Kennedy, Jr. and Dane Wigington: Is Climate Engineering Real?* Geoengineering Watch. <https://www.geoengineeringwatch.org/us-presidential-candidate-robert-f-kennedy-jr-and-dane-wigington-is-climate-engineering-real/>
- Le Cam, L. (1986). The Central Limit Theorem around 1935. *Statistical Science*, 1(1), 78–91. <https://www.jstor.org/stable/2245503>
- Lee, Y., & Broudy, D. (2024a). Real-time self-assembly of stereomicroscopically visible artificial constructions in incubated specimens of mRNA products mainly from Pfizer and Moderna: A comprehensive longitudinal study. *International Journal of Vaccine Theory, Practice, and Research*, 3(2), 1180–1244. <https://doi.org/10.56098/586k0043>
- Lee, Y., & Broudy, D. (2024b). Response to critics of Lee & Broudy (2024) on the toxicity and self-assembling technology in incubated samples of injectable mRNA materials. *International Journal of Vaccine Theory, Practice, and Research*, 3(2), 1244.20-1244.29. <https://doi.org/10.56098/aqgye36>
- Lee, Y., Park, S., & Jeon, K.-Y. (2022). Foreign materials in blood samples of recipients of COVID-19 vaccines. *International Journal of Vaccine Theory, Practice, and Research*, 2(1), 249–265. <https://doi.org/10.56098/ijvtp.v2i1.37>

- Mahalakshmi, M., Diana, D. C., Ramachandran, R., Ravva, S. K., Illuri, B., Jeba Johannah, J., Manikandan, T., & Anand, A. J. (2024). Review on carbon-based micro and nano electro-mechanical systems for biotechnological application. *RECENT PATENTS ON NANOTECHNOLOGY*. <https://doi.org/10.2174/0118722105293232240826135124>
- McHugh, K. J., Jing, L., Severt, S. Y., Cruz, M., Sarmadi, M., Jayawardena, H. S. N., Perkinson, C. F., Larusson, F., Rose, S., Tomasic, S., Graf, T., Tzeng, S. Y., Sugarman, J. L., Vlastic, D., Peters, M., Peterson, N., Wood, L., Tang, W., Yeom, J., ... Jaklenec, A. (2019). Biocompatible near-infrared quantum dots delivered to the skin by microneedle patches record vaccination. *Science Translational Medicine*, 11(523). <https://doi.org/10.1126/scitranslmed.aay7162>
- Mead, M. N., Seneff, S., Rose, J., Wolfinger, R., McCullough, P. A., & Hulscher, N. (2024). COVID-19 modified mRNA “vaccines”: Lessons learned from clinical trials, mass vaccination, and the bio-pharmaceutical complex, part 2. *International Journal of Vaccine Theory, Practice, and Research*, 3(2), 1275–1344. <https://doi.org/10.56098/w66wjg87>
- Mead, M. N., Seneff, S., Wolfinger, R., Rose, J., Denhaerynck, K., Kirsch, S., & McCullough, P. A. (2024). COVID-19 modified mRNA “vaccines”: Lessons learned from clinical trials, mass vaccination, and the bio-pharmaceutical complex, part 1. *International Journal of Vaccine Theory, Practice, and Research*, 3(2), 1112–1178. <https://doi.org/10.56098/fdrasy50>
- Mnasri, W., Parvizian, M., & Ammar-Merah, S. (2021). Design and synthesis of luminescent lanthanide-based bimodal nanoprobe for dual magnetic resonance (MR) and optical imaging. *Nanomaterials*, 11(2), Article 2. <https://doi.org/10.3390/nano11020354>
- Montera, M. Carmela, Giordano, A., Asperti, C., Aruanno, A., Barzaghi, C. Enrico, Bignardi, D., Borrelli, P., Bommarito, L., Busa, M., Calafiore, P., Carusi, V., Cinquini, M., Cortellini, G., Cocchi, R., D'auria, F., de Caro, F., Demonte, A., di Leo, E., di Liziadi, M., ... Zambito, M. (2024). The role of skin tests with polyethylene glycol and polysorbate 80 in the vaccination campaign for COVID-19: Results from an Italian multicenter survey. *EUROPEAN ANNALS OF ALLERGY AND CLINICAL IMMUNOLOGY*, 56(1), 17–25. <https://doi.org/10.23822/EurAnnACI.1764-1489.291>
- Nance, K. D., & Meier, J. L. (2021). Modifications in an Emergency: The Role of N1-Methylpseudouridine in COVID-19 Vaccines. *ACS Central Science*, 7(5), 748–756. <https://doi.org/10.1021/acscentsci.1c00197>
- Nappi, E., Racca, F., Piona, A., Messina, M. R., Ferri, S., Lamacchia, D., Cataldo, G., Costanzo, G., Del Moro, L., Puggioni, F., Canonica, G. W., Heffler, E., & Paoletti, G. (2023). Polyethylene glycol and polysorbate 80 skin tests in the context of an allergic risk assessment for hypersensitivity reactions to anti-SARS-CoV-2 mRNA vaccines. *VACCINES*, 11(5), 915. <https://doi.org/10.3390/vaccines11050915>
- National Security Council. (1975). *National Security Study Memorandum 200: The Kissinger Report* (Memorandum (NSSM) 314, p. 123). https://en.wikipedia.org/w/index.php?title=National_Security_Study_Memorandum_200&oldid=651294288
- National Security Council. (2014). *NSSM 200 The Kissinger Report: Implications of Worldwide Population Growth for U.S. Security and Overseas Interests; The 1974 National Security Study Memorandum* (Declassified December 31, 1980, released to public 1989). Suzeteo Enterprises. https://en.wikipedia.org/wiki/National_Security_Study_Memorandum_200
- Nebehay, S. (2011, May 17). Gates says vaccine investment offers best returns. *Reuters*. <https://www.reuters.com/article/business/healthcare-pharmaceuticals/gates-says-vaccine-investment-offers-best-returns-idUSTRE74G7DJ/>
- Neyman, J., Pearson, E. S., & Pearson, K. (1997). IX. On the problem of the most efficient tests of statistical hypotheses. *Philosophical Transactions of the Royal Society of London. Series A, Containing Papers of a Mathematical or Physical Character*, 231(694–706), 289–337. <https://doi.org/10.1098/rsta.1933.0009>
- Nyström, S., & Hammarström, P. (2022). Amyloidogenesis of SARS-CoV-2 spike protein. *Journal of the American Chemical Society*, 144(20), 8945–8950. <https://doi.org/10.1021/jacs.2c03925>
- Oller, J. W. (2021a). Buying and Selling with the “Mark of the Beast.” *International Journal of Vaccine Theory, Practice, and Research*, 1(2), 318–364. <https://doi.org/10.56098/ijvtp.v1i2.20>
- Oller, J. W. (2021b). Weaponized pathogens and the SARS-CoV-2 pandemic. *International Journal of Vaccine Theory, Practice, and Research*, 1(2), 172–208. <https://doi.org/10.56098/ijvtp.v1i2.16>

- Oller, J. W. (2021c, February 17). *Why Add to the Crowded Field of Academic Journals Publishing Vaccine Research?* [News and Views]. The Defender: The Children's Health Defense News and Views. <https://childrenshealthdefense.org/defender/academic-journals-publishing-vaccine-research/>
- Oller, J. W., & Santiago, D. (2022). All cause mortality and COVID-19 injections: Evidence from 28 weeks of Public Health England "COVID-19 vaccine surveillance reports." *International Journal of Vaccine Theory, Practice, and Research*, 2(2), 301–319. <https://doi.org/10.56098/ijvtp.v2i2.42>
- Oller, J. W., & Shaw, C. A. (2020). Brave new world: Omens and opportunities in the age of COVID-19. *International Journal of Vaccine Theory, Practice, and Research*, 1(1), 1–10. <https://doi.org/10.56098/ijvtp.v1i1.2>
- Oller, J. W., Shaw, C. A., Tomljenovic, L., Karanja, S. K., Ngare, W., Clement, F. M., & Pillette, J. R. (2017). HCG found in WHO tetanus vaccine in Kenya raises concern in the developing world. *OALib*, 04(10), 1–30. <https://doi.org/10.4236/oalib.1103937>
- Parson, E. A., & Keith, D. W. (2024). Solar Geoengineering: History, Methods, Governance, Prospects. *Annual Review of Environment and Resources*, 49(Volume 49, 2024), 337–366. <https://doi.org/10.1146/annurev-environ-112321-081911>
- Peters, S. E., Newman, J., Ray, H., Thorp, J. A., Parotto, T., Hooker, B., McDyer, D., Murphy, L., Stricker, R. B., McDonnell, M., Mills, P. J., Gieck, W., & Northrup, C. (2024). Menstrual abnormalities strongly associated with proximity to COVID-19 vaccinated individuals. *International Journal of Vaccine Theory, Practice, and Research*, 3(2), 1435–1461. <https://doi.org/10.56098/tp99wn15>
- Pharmaceutical Technology. (2024, July 5). COVID-19 Vaccination Tracker: Daily Rates, Statistics & Updates. *Pharmaceutical Technology*. <https://www.pharmaceutical-technology.com/covid-19-vaccination-tracker/>
- Pólya, G. (1920). Über den zentralen Grenzwertsatz der Wahrscheinlichkeitsrechnung und das Momentenproblem [About the central limit theorem of the probability calculation and the moment problem]. *Mathematische Zeitschrift*, 8(3–4), 171–181. <https://link.springer.com/content/pdf/10.1007/BF01206525.pdf>
- Rajaković, L. V., Marković, D. D., Rajaković-Ognjanović, V. N., & Antanasijević, D. Z. (2012). Review: The approaches for estimation of limit of detection for ICP-MS trace analysis of arsenic. *Talanta*, 102, 79–87. <https://doi.org/10.1016/j.talanta.2012.08.016>
- Rumyantsev, V. A., Pukhalskii, Y. V., Loskutov, S. I., Mityukov, A. S., Vorob'yov, N. I., Yakubovskaya, A. I., Kameneva, I. A., Nikiticheva, G. V., Gorodnova, L. A., Berdysheva, K. N., Kovalchuk, A. I., & Meshcheryakov, D. D. (2024). Use of a Huumate-Sapropelic suspension when growing Sunn Hemp (*Crotalaria Juncea* L.) in protected soil conditions (greenhouse). *DOKLADY EARTH SCIENCES*, 516(1), 774–780. <https://doi.org/10.1134/S1028334X24600865>
- Salerno, M., Sessa, F., Piscopo, A., Montana, A., Torrisi, M., Patanè, F., Murabito, P., Li Volti, G., & Pomara, C. (2020). No Autopsies on COVID-19 Deaths: A Missed Opportunity and the Lockdown of Science. *Journal of Clinical Medicine*, 9(5), 1472. <https://doi.org/10.3390/jcm9051472>
- Santiago, D. (2024). A closer look at N1-methylpseudouridine in the modified mRNA injectables. *International Journal of Vaccine Theory, Practice, and Research*, 3(2), 1345–1366. <https://doi.org/10.56098/5azda593>
- Santiago, D., & Oller, J. W. (2023). Abnormal clots and all-cause mortality during the pandemic experiment: Five doses of COVID-19 vaccine are evidently lethal to nearly all Medicare participants. *International Journal of Vaccine Theory, Practice, and Research*, 3(1), 847–890. <https://doi.org/10.56098/ijvtp.v3i1.73>
- Schwab, K., & Malleret, T. (2020). *COVID-19: The Great Reset*. World Economic Forum. <https://www.amazon.com/COVID-19-Great-Reset-Klaus-Schwab/dp/2940631123/>
- Segalla, G. (2024). Adjuvant activity and toxicological risks of lipid nanoparticles contained in the COVID-19 "mRNA vaccines. *International Journal of Vaccine Theory, Practice, and Research*, 3(2), 1085–1102. <https://doi.org/10.56098/z1ydm29>
- Segalla, G. (2023a). Apparent cytotoxicity and intrinsic cytotoxicity of lipid nanomaterials contained in a COVID-19 mRNA vaccine. *International Journal of Vaccine Theory, Practice, and Research*, 3(1), 957–972. <https://doi.org/10.56098/ijvtp.v3i1.84>

- Segalla, G. (2023b). Chemical-physical criticality and toxicological potential of lipid nanomaterials contained in a COVID-19 mRNA vaccine. *International Journal of Vaccine Theory, Practice, and Research*, 3(1), 787–817. <https://doi.org/10.56098/ijvtpr.v3i1.68>
- Segalla, G. (2023c). Pandora's vaccine. <https://vimeo.com/807279310>
- Shaw, C. A. (2020). Weaponizing the peer review system. *International Journal of Vaccine Theory, Practice, and Research*, 1(1), 11–26. <https://doi.org/10.56098/ijvtpr.v1i1.1>
- Snapshot. (n.d.). Retrieved April 7, 2021, from <https://link.springer.com/article/10.1007%2F01206525>
- Strohmidel, P., Sperling, M., & Karst, U. (2018). Investigations on the binding of ethylmercury from thiomersal to proteins in influenza vaccines. *Journal of Trace Elements in Medicine and Biology*, 50, 100–104. <https://doi.org/10.1016/j.jtemb.2018.06.011>
- Student, & Gosset, W. S. (1908). The probable error of a mean. *Biometrika*, 6(1), 1–25. <https://doi.org/10.2307/2331554>
- Talwar, G. P., Sharma, N. C., Dubey, S. K., Salahuddin, M., Das, C., Ramakrishnan, S., Kumar, S., & Hingorani, V. (1976). Isoimmunization against human chorionic gonadotropin with conjugates of processed beta-subunit of the hormone and tetanus toxoid. *Proceedings of the National Academy of Sciences*, 73(1), 218–222. <https://doi.org/10.1073/pnas.73.1.218>
- Tarasov, K. (2019, September 7). *This Bill Gates-funded chemical cloud could help stop global warming*. CNBC. <https://www.cnn.com/2019/09/07/bill-gates-funded-solar-geoengineering-could-help-stop-global-warming.html>
- Tuuminen, T. (2024). A GMO Experiment on Two-Thirds of the World's Population: Reaction to Ulrich's Commentary on Lee and Broudy (2024). *International Journal of Vaccine Theory, Practice, and Research*, 3(2), 1244.11-1244.18. <https://doi.org/10.56098/xncqaa94>
- Ulrich, A. S. (2024). No Nanobots in Vaccines — Just Lipids on the Loose: Commentary on Lee and Broudy (2024), “Real-Time Self-Assembly of Stereomicroscopically Visible Artificial Constructs in Incubated Specimens of mRNA Products Mainly from Pfizer and Moderna: A Comprehensive Longitudinal Study.” *International Journal of Vaccine Theory, Practice, and Research*, 3(2), 1244.1-1244.10. <https://doi.org/10.56098/7hsjff81>
- US Environmental Protection Agency. (2000, March 23). *Assigning Values to Non-Detected/Non-Quantified Pesticide Residues in Human Health Food Exposure Assessments Office of Pesticide Programs*. U.S. Environmental Protection Agency Washington, Dc 20460. <https://archive.epa.gov/pesticides/trac/web/pdf/trac3b012.pdf>
- van Aken, J., & Hammond, E. (2003). Genetic engineering and biological weapons. *EMBO Reports*, 4(Suppl 1), S57–S60. <https://doi.org/10.1038/sj.embor.embor860>
- Wakefield, A., & Kennedy, Jr., R. F. (Directors). (2022, November 12). *Infertility by Vaccines: A Diabolical Agenda - CHD Films* [Video recording]. <https://odysee.com/@greatawakening:c/infertilitybyvaccines:d>
- Wang, J.-H., Chen, H.-Y., Chuang, C.-C., & Chen, J.-C. (2020). Study of near-infrared light-induced excitation of upconversion nanoparticles as a vector for non-viral DNA delivery. *RSC ADVANCES*, 10(67), 41013–41021. <https://doi.org/10.1039/d0ra05385f>
- Wang, Z., Zhang, Y., Li, Z., Wang, H., Li, N., & Deng, Y. (2023). Microfluidic brain-on-a-chip: From key technology to system integration and application. *SMALL*, 19(52), 2304427. <https://doi.org/10.1002/smll.202304427>
- Wells, G., Prest, H., & Russ, IV, C. W. (2023, January 6). *Signal, noise, and detection limits in mass spectrometry*. Agilent Technologies, Inc. 2011, 2021, 2023 Printed in the USA, January 6, 2023. <https://www.agilent.com/cs/library/technicaloverviews/public/5990-7651EN.pdf>
- WHO Special Programme of Research. (1993). *Fertility Regulating Vaccines: Report of a Meeting Between Women's Health Advocates and Scientists to Review the Current Status of the Development of Fertility Regulating Vaccines*, Geneva, 17-18 August 1992 (49117). World Health Organization. <http://www.who.int/iris/handle/10665/61301>
- Wigington, D. (2021, March 10). *The Dimming, Full Length Climate Engineering Documentary*. Geoengineering Watch. <https://www.geoengineeringwatch.org/the-dimming-full-length-climate-engineering-documentary/>