

Physics of Moses' Exodus, of Vampire Myths, of Family Structures, of Modern Ideologies, and of the Celiac Disease

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ABSTRACT

Alpha-emitting nanoparticulates, relativistic neutrons and other principles of physics brought together allow to confirm many elements in the Ancient Testament (in particular the Exodus, in addition to what was already shown in earlier works of the author), the birth of the "vampire" concept in the 19th Century, to explain the existence of various family structures (as underlined by the Leplaysian school, and more recently by Emmanuel Todd), and the emergence of modern ideologies, by underlining the major forces at work under the maps in *L'Invention de l'Europe* and *L'Origine des systèmes familiaux*. The celiac disease is also included as a case study where alpha-emitting nanoparticulates, as usual in noncommunicable diseases, are the key factor but where a very specific medical reply is required.

Keywords: Pollution, alpha-emitting nanoparticulates, relativistic neutrons, geophysics, political history, demographics, statistical analysis, family structures, socialism, nazism, communism, anarchism, health physics, neurology, Frédéric Le Play, Emmanuel Todd

1 In the Torah

The story relevant to the Exodus can be validated without any difficulty thanks to relativistic neutrons (see [1])¹ and the knowledge around the Santorini VEI 8 eruption that created a massive tsunami, pumice stone fallout to very far, and of course, as associated with any eruption, fallout of alpha-emitting nanoparticulates (and beta emitters (creating typically "wave", "ondulation" form in the clouds due to Bose Einstein condensation, but the alpha-emitting nanoparticulates fall first due to heavier weight). These alpha emitters create the array of stillbirths not so much due to the intensity of the fallout (that is limited due to the distance of Egypt to the volcano) but to the youngness of the women carrying a first baby (as expected in a culture of slavery, the extractive group develops quickly, and has together with rapid development bad customs including male domination of women, male domination of women happening typically with imposition of babies to create families and fixate the women at home [2]) that, due to weak bodies have stillbirths and not birth defects (other persons can resist creating a discrepancy). The effect comes also from the very low natural radioactivity in the area of Egypt and from the absence of artificial sources, obviously.

The group of slaves flees. There is, around, lightning that comes from exchange of electrons between the alpha emitters on the soil (naturally present) and the beta emitters still floating above. They reach the Red Sea as a group of pumice stones comes. Pumice stones were agglomerated, due to Bose-

¹ A more recent example shows also agglomeration due to Bose-Einstein condensation in a weaker eruption on the Pacific <https://www.sbs.com.au/news/this-floating-pumice-raft-in-the-pacific-could-help-save-the-great-barrier-reef>

Einstein condensation from the fallout ([3]), in rafts, that, pushed by the energy of the volcanic eruption from afar, advance slowly through the channel, slaves can jump on the rafts as they pass in front of them and float across the Red Sea standing on them (especially as they are meager, slavery made their bodies light) . They are expected to reach the Sinai around el-Tor (where the etymology could suggest a metaphorical gate). There is magmatic activity also on the Sinai, effusive volcano due to the relativistic neutrons also having activated this area and water is produced, it is easy to find on the edges of the Sinai. They then start climbing the mountain. The activation of the mountain by the same wave of relativistic neutrons that created the tremendous Santorini eruption leads at least to very strong delayed magmatism as well in the effusive volcano. Gamma underground activity causes flashes of light on the granite ground atop the mountain that also sees a rise in humidity from the same magmatic activity, water from underground fusion of light elements benefitting of the hotness of the soils to rise through the mountain and create an humid atmosphere on its highs (see [4] with the first example with the bird flying for a simple description in another setting). A dimmer possibility is related to actual lava flow somewhere.

Another interesting fact relates to the Babel tower. Its “remnant” is obviously the Thertar (Tharthar) lake in Iraq. A single fireball on a single tower of extremely big size creates an immense destruction area (compare with biggest crater impact in Maya case in [2] for similar fireball size). Saddam Hussein, tyrant of an extractive regime built on petroleum built one palace exactly where the Babel tower stood². The Thertar lake shows the shape, with riddle at the south-south-west (visible in the data given in [5]) expressing the reduction of power linked to the tower itself reducing expression of the fireball on the ground in that corner, and some debris visible with Google Satellite view south of that riddle.

2 Vampire stories

Leukemia was understood to be the core element in the psychological thrillers of the 19th Century related to vampires [6]. The first (faint) story corresponds to the Tambora eruption, then there is a silence, and the progressive industrialization with coal ore³ later produces the main stories (1897 for Bram Stoker – see results describing in transparency the development of coal use after the Tambora eruption in [6]). Garlic is a well-known anticancer ([7] [8] [9] [10] for instance). See for instance the author’s literature for alpha decay and cancer [11] [12] and [13] [14]. The historical data presented in [6] allows to see indirectly the rise of the coal industry, where the novelty of the diseases from alpha-emitting nanoparticulates in coal ashes creates a feeling of surprise among the population, that is seized by the authors to sell books.

Some neuronal elements allow to understand the simple need for rapid movements akin to tremors to foster blood circulation and decontaminate slowly (purge is a normal automatism – there are indeed cerebral automatisms [15]). Internal hemorrhages from the effect of alpha decay in the brain for instance (as exemplified in [16]).

The missing part in the mind of Stoker is of course the erect clitoris that resurfaces in the hostile part (vampire canines).

² 2003 is an example of when a war victory amounts to natural justice – but not perfectly due to DU use at the same time.

³ Alpha-emitting nanoparticulate occurring naturally (“NORMs”) - see also [1]

3 More Discussions on Long-term History, Understanding Family Structures and the Birth of Modern Ideologies

Here, it is argued that the great trends of world politics, historically, i.e. the main ideologies, liberalism, the antiliberalisms on the left and on the right up to Nazism and Communism, etc. can be explained rationally with a summation of the findings on neurology, the cumulative effects of the various sources of contamination with alpha-emitting nanoparticulates, and methodological individualism (in line with Max Weber), with the postulate of rational actors and politics as a story of entrepreneurship (the classical analysis by Aloïs Schumpeter).

This builds also on the famous works on family structures of the Leplay school that have been particularly developed in the end of the 20th century by French author Emmanuel Todd ; it is shown how the family structures and the ideologies come from the main stem issue of levels of radioactivity (alpha emitting). Emmanuel Todd, in his book *L'Invention de l'Europe* makes a postulate in which the ideologies spill from the "spiritual remains", so to say, of disappearing family structures ; in fact both family structures and ideologies are long-term results of the levels of alpha radioactivity (with the natural background and later artificial additions).

Going through the author's article on traumatic brain injury [16] is a must before reading what follows; understanding as well the rule of alpha decay chains with natural contamination (progressive acceleration of the alpha emission due to progressive shortening of half lives over the decay process) essential. It shows how the neurological results of internal contamination with alpha emitting nanoparticulates include disturbances to behaviour, for instance aggressiveness and impulsivity, bringing to what can be defined as "anti-squeezed behaviour" [17] . Recent cases of anti-squeezed behaviour in the populist movement, i.e. protests against immigrants unrelated to the traditional fascist and nazi trends, have directed the title of the article to focus on "cultural insecurity" but anti-squeezed behaviour does not cover only political populism ; "populism" in general as behaviour covers however what is involved in the concept of anti-squeezed behaviour, a deliberately expansive behaviour (not necessarily always with weapons, cars, or even with the body, voice sometimes is already a very good element to make a diagnose) that is the first component of imperialism. In this deliberate activity of seizing space (in general), the subject suffering from brain trauma finds alleviation from the endocannabinoid boost provided by the satisfaction of rapid victory. The truest opposite of this behaviour certainly is Buddhism ; follow related ascetic groups where a good deal of self-interrogation is required from the follower together with stoicism... monastic movements in general, even though some particular monastic movements have shown (in medieval history) that they were not part of this culture (Benedictines for instance).

3.1 Family structures, before the birth of ideologies

There clearly is a direct impact of low levels of contamination in daily life, already, on the brain & the body leading to variations in the general state of health that are independent of artificial sources such as car fumes and coal ashes (this was shown in the first article of the author on alpha-emitting nanoparticulates).

Family structures are a social system. They constitute the first thread of society. Early forms (as discussed in *L'origine des systèmes familiaux* by E. Todd) do not show strong structuration because early humans avoided granitic areas, inhabiting preferentially plains, alluvial sectors where farming could develop rapidly. Judea, for instance is an area of very low natural radioactivity, likewise for

northern Italy, the Netherlands, southern England... Mesopotamia also fits the criterion. The health condition of the populations were thus relatively good, so far as there is an implicit observation, if one takes the very early pages of the Ancient Testament, where life expectancies of '600', even '900' years are suggested ; it is important to remind that some sharks from Groenland, in the very cold waters of the North Atlantic have been suggested to reach 400 years (with sexual maturity at 150 years) [18]; the 250 years old Galapagos turtles are also an excellent example, the Galapagos islands are of very low natural radioactivity with an excellent weather. The possibility of firm honesty of the Ancient Testament report is hence a real one since there can be expected that small communities of early humans, at times where the number of humans was extremely limited could inhabit areas, live off from the resources, maybe have a farm system, for long without meeting enemy groups fighting for the same resources, so they could remain in areas of very low natural radioactivity ; hence groups could be expected to manage to keep some elders at least living to the length suggested in the Ancient Testament (with the same criterion of sexual maturity also waiting, i.e. a general delayed development of the body) ; the sharks from Groenland do not meet strong competition in these areas, do not consume a lot of resources as they move slowly in the waters, there is geothermal activity underground between Groenland and Iceland, the heat from the soil together with the natural heat of the radioactive nanoparticles leads the nanoparticles to rise somehow, the sharks can live under (close to the bottom of the water) and escape contamination almost wholly, living from dead animals falling down. There also certainly was a selection, some elders being protected by the group as substitute to the absence of writing, to keep a collective memory, explaining the particularly long lives given at the very beginning of the Torah.

As settlements expanded humans had to come to areas where natural radioactivity is higher and agricultural conditions less good (together with, typically, in average less sunshine, except in very hot areas where anyway there are no clouds that can come to gather above the granite). In soils as well high natural radioactivity makes growth of vegetables harder and this encourages cattle breeding on pasture instead of wheat, corn etc. The consequences on the social structure are numerous, there are owners who can own the cattle, some "jobs" needed involve solely watching the cattle, hence suggesting the possibility of a "caste" organization, separate guilds develop for making alcohol which is consumed at higher levels to compensate for internal contamination (as it is a "firewall" for alpha decay, by flooding in thick sugars the nanoparticles – when the contamination is adequately compensated by an intake in alcohol neither too high nor too low the worker manages to feel no consequence of alcohol through consumption, hence the strong alcohol cultures in e.g Sweden and Finland, granitic areas (Finland in particular)), and more organized religions with a charity system can take hold. The "stem family" can hence appear. It is a direct consequence of the level of natural radioactivity in areas involved. Emmanuel Todd discusses the disappearance of the "stem family" in England at the end of the Middle Ages, in spite of the past colonization by groups of people of a "stem" culture ; the much lower natural radioactivity in most of England, together with a relatively mild climate is the essential reason of this evolution. The individualist culture in England simply is an essential result of the low natural radioactivity, lower health needs, no needs for a strong social support system, encouraging as well a rapid commercial development as "brains" are in average less contaminated, work better so even though "stem culture" customs are imported on these grounds they progressively disappear.

Emmanuel Todd, in *L'Invention de l'Europe* underlines the "specificity of France" with a particularly high number of family types, which simply is a consequences of the strong variations of natural radioactivity over the territory of the country, from Auvergne (and in particular the northern parts, Limousin, Corrèze, where this combines with a bad exposure with the slopes mostly facing North)

where family structures are typically the strongest, slightly lower natural radioactivity (but still relatively high) in the granites of Brittany, Alsace, Vendée, where the “stem” structure together with a strong Catholicism dominate; and, with lower and lower natural radioactivities, thinner and thinner family structures. Scotland is characterized by an intermediate, in comparison with granitic Ireland that fits the pattern of Brittany, Alsace & Vendée ; its presbyterianism comes together with a cold climate and some granites. The mafia can first be defined as an extended family, a solidarity system organized against foreigners ; in Italy, the southern parts where the mafia has traditionally a family form are the most granitic areas in the country ; the mafia in Naples takes a more individualistic form (close to the “company model”) ; and more to the North of Italy the natural radioactivity is even lower.

Where natural radioactivity is high even language becomes “mutant”, this is the classical description of the Breton tongue for instance, students can also observe how Irish presents, similarly, a very hermetical aspect for the newcomer, as opposed for instance to Japanese which is a simple language, with no mutations, a very simple grammar that comes together with a country of a naturally low radioactivity (this could seem surprising for there is a principle in which a country that is in general seen as “protectionist” could be expected to self-protect with a complex and intricate tongue, this is not so much the case⁴). Scottish is a language close to English, does not present a strong differential in grammar. Breton on the other side presents a wide variety of words available for the same signification, words have to mutate progressively depending on the structure of the phrase to adapt for an easier pronunciation, but to the depends of “word recognition” due to the strong similarities between words with a different meaning. Breton presents the characteristic of a tongue that is adapted for throats that suffer from inflammation due to the strong contamination with alpha-emitting nanoparticulates of the body (thinner space for air circulation). The derivations of traditional French in areas of high natural radioactivity (the arpitan of Auvergne) shows in another way, through shortening of some words for instance, adaptation to the contamination of the speaker that makes perfect articulation harder. Lingua Latina, in its Ciceronian purity (with its pre-Christian grammar...) testifies of an area, Italy, with low natural radioactivity, where also many speakers, of the higher ranks were spared from physical work that could bring even some limited contamination with natural radioactivity (working in dust for instance necessarily leads to some intake, even in soils of very low natural radioactivity, over time), because of the slavery system. This allowed the “high culture” to remain pure, wine drinking nevertheless was part of the tampering of the limited levels of contamination that the slavery system could not shield. The progressive disappearance of the slave system, the military defeats that also reduced the trade areas available for Roman vessels, go together with a progressive reduction of the “artful” complexity of the Latin language, up to the relatively simple standards of the Augustine era near the end that have been kept later by the Roman Catholic church for its manuscripts. The expansion of lead use, in pipes... can also have some relation to that evolution, as lead comes from areas with strong natural contamination (near granites...). Likewise the evolutions of Swedish, vs. Danish, show the adaptation to higher natural radioactivity, the Swedish language being slightly less “harsh”, more “slushy” so to say, allowing to speak with slightly less efforts, it fits a region with relatively high natural radioactivity where efforts for speaking are more costly

⁴The opposite argument goes for Poland, a country with relatively recent national unity, no natural borders unlike Japan, where the very strong complexity of the language seems to be an essential tool for national unity, in spite of relatively low natural radioactivity in most of the country.

(Norwegian languages do not have the same tendency, Norway being a country of low natural radioactivity).

Families with a strong structure, in particular the “stem” and even more the “communitarian” families are, simply, social systems for protection of the old, the ageing parents keeping in the same home many children to make sure they benefit from the protection provided by their children working at their home, helping for daily tasks, on the farm property etc. It is a reply to the high natural radioactivity.

Napoleon 1st himself came from Corsica, where the radioactivity is naturally high and he obviously suffered from after effects of the accumulated contamination that he carried in his body, including not only digestive issues. His impulsivity transcended into imperialism was successful in a country where, simply, no one was simply, at that time, as much ambitious as he was ; French politics also exited a period of purge when he came at the forefront, persons from the French mainland with a similar neurological profile obviously had eliminated each other before he came from isolated Corsica, leading to the initial success of his anti-squeezed behaviour in the late Revolution.

3.2 The industrial era and the birth of socialism

The “Luddite” behaviour of the workers in Lyon in the 1830s shows some of the most primitive effects of brain trauma, directly related to internal contamination : a non-organized movement of simple violence against goods, where the destruction of tools for mechanical production is decided pretty much spontaneously, without any trade union framework, it is essentially a display of simple impulsivity and aggressiveness. The workers do not rise any flag of colour, it is not a political movement, they just try to protect their jobs.

Political entrepreneurship is what bridges the gap between the issues with health levels in areas of high natural radioactivity and what State social welfare “could” provide by targeting the weak, organizing a political movement ; progressively these politicians organize together in a weak collective frame, hence the birth of the Socialist “internationale” in the middle of the 19th Century, as coal is also developing and the demand for socialism rises, but they meet the already existing social structures of the Church in areas of high natural radioactivity. In Sweden for instance the Lutheran church has strongly contributed to the education of the population, very early, by teaching reading, to encourage appropriation of the Bible. This is a kind of primitive social welfare system (together with degrees of religious charity for the poor). The established systems of Christian solidarity also try to seduce workers and compete with the Socialist internationale.

The birth of the coal mining industry is the first big change in Western Europe, bringing in the atmosphere the natural radioactive fallout from coal contamination, causing a surge in illnesses that were pretty much unseen before. Coal has to be put together with the human concentrations rising, in areas that were not attractive before, in the bottom of valleys for instance where radon naturally gathers (even if the natural radioactivity is low), with low levels of aeration.

The real birth of the campaigns for social welfare, in the second part of the 19th Century comes along a much bolder industrial development with rising contamination with alpha-emitting nanoparticulates from coal fumes, including also siderurgy where the coal is used for powering the iron works, leading to direct exposure of the workers near the furnaces, not to mention simply coal mining underground where radon inhalation is strong. The Communist party has in France its strongholds in areas of very high natural radioactivity, Limousin in particular, together with some limited positions in countryside Brittany and, for the rest, had its most visible strongholds in areas of the coal industry. The bad health of the workers is obviously the first reason for them to support promises that involve comprehensive

social welfare, shorter working hours etc. ; likewise national-socialist movements have typically seated themselves with social welfare promises that made them successful in areas of relatively high natural radioactivity – Pétain himself chose Vichy where the hot fumes lead to an extremely strong contamination with radon of the ambient air. The “Carlist” movement in Spain had its strongholds in the areas of relatively high natural radioactivity in the North-West of the country, which presents strong cultural similarity with Brittany, Alsace and Vendée. These areas of quite high natural radioactivity always have been strongholds of counter-revolution in France. The “communist” tradition in Italy is relatively soft, the local breeds (Gramscism, Negrism) have a low level of authoritarianism, this comes together with relatively limited natural radioactivities in the hills of Emilia Romagna, the main Communist stronghold in Italy ; likewise Mussolini’s fascism has been a relatively moderate dictatorship in terms of levels of political violence. In south-eastern Spain anarcho-socialism of course developed thanks to the combination of warm weather (that encourages individualism) and low natural radioactivity. The issue of Nazism is partly related to historical conditions (the military defeat of 1918 and French repression in the later years), partly to health condition, mostly coal fumes leading to levels of brain trauma, fueling an aggressive (anti-squeezed) behaviour seized by the nascent national-socialist party, this party manages to seize it by building a Jewish scapegoat as the defeat leads not only to an economic disaster but to a reduction in overall health levels (not to mention the “Spanish” Flu⁵) in Germany, reducing opportunities of healing with leisure time, alcohol etc. (even though the dietetic virtues of the vegetarianism defended by Hitler certainly had, also, some progressive persuasion for those who followed suit). There is not only the social welfare promises and the simplicity (for damaged brains) of the scapegoating campaign : the Nazi salute also helps, physically, for the draining of gravitationally-accumulated nanoparticles that are sitting in the forearm, hand, etc., as a physical exercise (together with the rapid marches that feed blood circulation and hence allow some draining) it has some purgative properties that also obviously produced a positive effect on the participants, with positive political effects for the NSDAP.

In China, the culture of massive political violence did not wait for the early 1900s, the soils are in average of quite high natural radioactivity in most of the country ; the devastating Communist revolution under Mao, where the “participative” dimension is much higher than in the Soviet Union also leads to the trail of brain damage from internal contamination with alpha-emitting nanoparticulates and individual “passing” of the pain onto scapegoats (with the temporary endocannabinoid boost provided by the satisfaction of contributing to the suffering of others together with the belief that it will ensure a better world) by the Red Guards.

Anarchism in Ukraine is a movement set in plains, where radioactivity is low, and, further, coal had not developed yet strongly, leading to the relative exception that is Nestor Makhno’s group (with yet commonalities with the Barcelona anarchosocialist trend, the delayed economic development, but lower coal development leads to absence of welfare demands and to the “black purity” of the historical Ukrainian anarchism). Today, still, the “antifa” movement is particularly strong in Portland and in the north western United States in general where the weather, yet humid, is never really cold, never too hot, and natural radioactivity extremely low, together with limited artificial fallout from

⁵Soldiers of the First World War stayed in trenches, in contact with the dust, sublevated also by the various battles, inhaling progressively elevated amounts of the naturally occurring alpha emitters in that dust, which they excreted very slowly, were obviously easy preys for a virus after the war.

industrial activities that are overall clean in the area. Texan “anarchism” of the libertarian trend, in wide plains with slightly higher natural radioactivity from alluvial deposits taken from the mountains of the West and an helping weather is a distant, weakened cousin of these, leading to a black and... yellow flag, the most “objective”.

4 Celiac disease

Recent findings have associated pathogenesis of the celiac disease (CD) with inhibition of the CF transmembrane conductance regulator (CFTR), a chloride channel – accumulation of chloride in the extracellular environment being caused by the closure of the channel itself linked to the gluten/gliadin peptide [19]. The increased bile acid secretions typical of celiac disease [20] of course compensate for the higher negativity in the gut but this nevertheless cannot make for the whole accumulation of negative charges, especially as the secretions are constantly pushed away by the digestion process.

These elements are key to explain celiac disease. The accumulation of chloride- in the gut leads to accretion of alpha-emitting nanoparticulates behind the gut, in the blood-gut barrier. In alpha-emitting nanoparticulates, many decays happen inside the nanoparticulate and the positive charge remains within the particulate, meaning that the nanoparticulate altogether keeps a positive charge, while also vibrating and producing heat (in addition to the outward decays producing necrosis of the nearby cells, or inflammation / proliferation through the well-known bystander effect). A mechanism involving Cl⁻ accumulates in neuronal cells condensating the alpha-emitting nanoparticulates and their positive charge is underlined in [11]. Here for celiac disease the mechanism is similar.

4.1 Reconstructing the mechanics of celiac disease

Some of the alpha-emitting nanoparticulates that contaminated the body will necessarily enter the blood stream which will contribute to redistributing them through the body. As the blood carries them along the gut, the Cl⁻ accumulated in the gut cells due to inhibition of the CFTR channel capture many alpha-emitting nanoparticulates which then stagger along (they will be scaled along the gut cells where Cl⁻ is emprisonned as the positive charge of the nanoparticulates mean that they are also repelled by each other) and the outward decays of the superficial layers of radioactive atoms of the nanoparticulates (in addition to their natural vibration & heat) affect strongly the cells in the direction of the accumulated Cl⁻ in the gut, leading to 1. necrosis in the immediate proximity of the nanoparticulate and 2. proliferation due to bystander effect for non-destroyed but damaged cells – those who received only a limited part of the energy of the decay, cushioned by the cells which have been destroyed (in 1). Inflammation and pain also of course results.

As nanoparticulates advance inbetween the crypts inside the villi, the closest lamina propria cells are destroyed but, beyond, other lamina propria cells proliferate due to bystander effect ; these new lamina propria cells push the villi and, as the tip of the villi merge under their pressure, the new lamina propria cells bridge the gap and turn the villi into closed, useless crypts.

The proliferation of lamina propria cells is obvious in biopsies of small intestines of subjects with celiac disease. It floods the spaces between the villi and also forces their division in smaller pieces as proliferating lamina propria cells streak through them. Biopsies show clearly how the nanoparticulates attack the gut from behind, reaching progressively to the other side due to the attraction of the Cl⁻ charges in the gut. There is the typical vacuolization behind the nanoparticulates, showing their trail of destruction ; the lamina propria cells that first grew to fill up the space between the villi due to bystander effect, are eventually totally destroyed by the decay of the alpha-emitting nanoparticulates.

The alpha-emitting nanoparticulates are also evident through the many conditions associated with celiac disease, in addition to the obvious effects from the loss of ability to assimilate nutrients. From memory loss and „brain fog“ to headaches and migraines, a situation identical to what is described in [16] is evident, with Cl⁻ also accumulating in brain cells due to the same dysfunction at the basis of the celiac disease, attracting alpha-emitting nanoparticulates whose endocrine disrupting effects (with decays impacting glands) also connect with CD-associated mood disorders.

Likewise, the very strong association of celiac disease with cancers is obviously explained by the bystander effect of alpha-emitting nanoparticulates ; typically their accretion in the blood vessels irrigating the gut because of the Cl⁻ accumulation leads to the small-bowel adenocarcinoma and to gastrointestinal lymphomas which are the most prevalent in celiac disease subjects (see [21]).

As concerns the genetics of celiac disease, the origin in a mutation caused by, typically, alpha-emitting nanoparticulates in the gonads of the parents damaging in a certain way the chromosomal package, is obvious (the many hereditary effects of alpha-emitting nanoparticulates were covered in [12]). This explains the association of the celiac disease with other hereditary diseases such as autism [22] and Down Syndrome [23].

It is important to note that as the alpha emitters are staggered along the gut, their alpha decays can also damage the nutrients that have managed to get across the intestine and this again contributes to reducing the actual amount of nutrients that reach the cells ; frail molecules such as vitamins for instance will be very easily broken in less valuable pieces by the decay energy even though most of the decays are attracted by the negative charges accumulated in the guts themselves.

4.2 Comments

The use of coffee (whose strong pH is in principle of great help to eliminate alpha-emitting nanoparticulates through toilet use) for elimination of the contaminants bears, here, a strong question mark because, as the coffee goes through the gut, it is likely to increase the pressure of the nanoparticulates onto the gut and actually increase the symptoms.

The systematic use of acidic drinks, on the other hand, should contribute to pushing back the nanoparticulates into the blood stream ; it has to be combined with immediate physical exercise of the whole body to drain the nanoparticulates back into the blood circulation, before the kidneys capture them and eliminate them naturally through urine.

The proven regenerative (stem cell booster – see for instance [24] [25] [26]) & widely demonstrated antitumor effects of medical cannabis (see for instance [27] [28] – there is much more on the subject) are obviously of need to stop proliferation of the lamina propria and repair the destruction caused by the alpha emitting nanoparticulates along their path.

A healing pattern that could be experimented would, in addition to the usual gluten-free diet and elimination of exposure to all sources of alpha-emitting nanoparticulates (it is reminded that they climb the food chain and that, hence, meats and red meats in particular are strong accumulators – a vegan gluten-free diet is advocated for), involve consumption of acidic drink, physical activity, waiting for miction and then afterward use of medical cannabis, as oil in sublingual intake for instance, to foster gut healing. Repeating several times a day – but while always listening to body needs in priority. The whole cannabis plant, fresh – undried, unheated – allows to benefit of all the phytocannabinoids without any psychoactivity as THCa has not decarboxylated into THC. But after

intakes of THCa-rich cannabis, immediate physical exercise should be avoided as, even in the body, as the body heats up with the exercise decarboxylation risks happening and the product will hence become psychoactive. Otherwise, CBD-rich and THC-poor oils do not raise that issue. And, from fresh cannabis, CBDA and THCa have the further benefit of being acids, that hence can contribute directly to the pushing back of the alpha-emitting nanoparticulates. Eating fresh leaves of cannabis with a fair ratio of CBD to THC will provide to the body these crucial acids that also contribute in another way, as they are acids, positively charged they play a role in the repulsion of positively-charged nanoparticulates of alpha emitters, contributing to their draining and excretion much more efficiently than decarboxylated cannabis components.

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