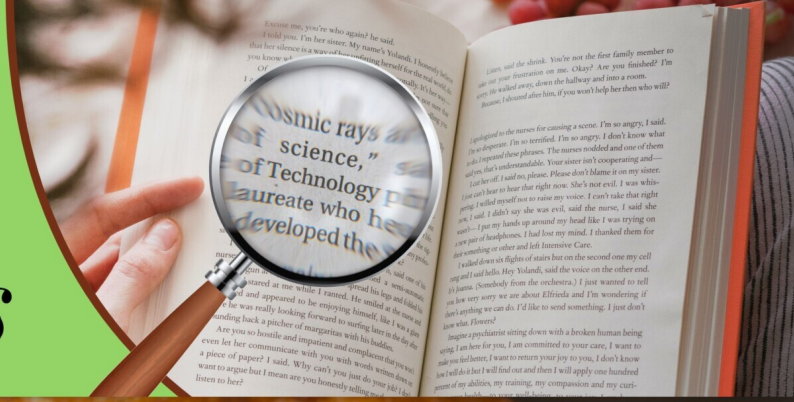


# BaronE Health Reviews



## Vegan GMO burgers, a danger to health

N°4  
February  
2023

Holistic Natural Health Experts

# About us

## Why Barone Health Reviews ?

Because today, although there is an incredible amount of information on the internet about health, finding authentic, professional, unbiased knowledge that is accessible to everyone's understanding is difficult.

In this era of technology and globalization, where there is an overwhelming amount of information, this may seem shocking but it is the sad truth. A responsible, self-reliant person can spend months searching for answers and solutions for their health and never find them.

On the internet, it is possible to find all types of information on health: courses, products, methods, practices, advice, opinions, explanations, scientific studies, devices, techniques, medicines, life experiences, anatomy, biology, medical research, etc...

Drowning in this ocean of health content, how can an average person tell the difference between lies and truths, misinformation and information, propaganda and knowledge, technical data and knowledge applicable to daily life?

## How is this different from ebooks, webinars, articles, etc.?

Like all content created by Holistic Natural Health Experts, the health review contains our independent expert opinions, tips and recommendations for anyone looking to improve their health.

However, the review offers you a different perspective. Unlike our articles, ebooks and webinars, where we develop our knowledge of a specific health topic with you, in the health analysis, we start from an external source that we dissect and analyze.

## What will I learn?

By dissecting and analyzing these external sources, we show you how we avoid the countless traps present in the majority of content available on the internet (especially free content). A bit like a magician revealing his tricks!

By bringing to light what is hidden behind a so-called "revolutionary" method, a "miracle product" or a so-called "holistic" medicine, you realize what is really possible and what is charlatanism or simply pure fraud.

This way, you make better decisions for your health, based on knowledge and true understanding.

## Who are the Barones ?

We are a family of three holistic health experts. Barone Santé is the name of our natural medicine practice in Switzerland, opened since 1993. Barone is simply our last name: Marina, Pascal and Philippe-Abraham Barone.

We have over 30 years of training and experience and have helped over 5,000 clients improve their health through natural medicines.

In 2021, our health education and online consultation platform is born: Holistic Natural Health Experts.

Since then, we never stop working for the health of our patients and developing this platform for all people who want to learn about health and gain independence.

# Vegan GMO burgers, a danger to health

## Original article

<https://www.gmwatch.org/en/106-news/latest-news/20099-rat-feeding-study-suggests-the-impossible-burger-may-not-be-safe-to-eat>

*Rats fed GM yeast-derived protein soy leghemoglobin – the burger's key ingredient – developed signs of toxicity. Report by Claire Robinson and Dr Michael Antoniou*

*The Impossible Burger is a plant-based burger, the key ingredient of which is a protein called soy leghemoglobin (SLH for short), derived from genetically modified (GM) yeast. It's already being sold in restaurants and supermarkets in the US. In 2019 the manufacturing company, Impossible Foods, applied for permission to market the burger in the EU and the UK.*

*However, the results of a rat feeding study commissioned by Impossible Foods and carried out with SLH suggest that the burger may not be safe to eat.*

*SLH is the substance that gives the burger its meaty taste and makes it appear to bleed like meat when cut. The US Food and Drug Administration (FDA) initially refused to signoff on the safety of SLH when first approached by the company. The rat feeding study results suggest that the agency's concerns were justified. Rats fed the GM yeast-derived SLH developed unexplained changes in weight gain, changes in the blood that can indicate the onset of inflammation or kidney disease, and possible signs of anaemia.*

The beginning of this very interesting article allows us to raise the first problem: why on earth do we have to recreate a fake rare meat?

Do we instinctively seek out the sight and taste of blood when a rare meat is cut? Are we wolves? If so, well, let us devour the hare we have hunted. With a trap or with weapons, because with the hand, the task seems difficult.

Bad joke aside, to imitate hemoglobin, queen of gory movies and culinary objective of carnivorous hunters, as close as possible to the original but without a victim, Impossible foods has used a GMO yeast.

This soy leghemoglobin (SHL) (soy also GMO) brings the final touch perfectly useless to the vegetable hamburger already containing GMO soy!

Of course, like any good GMO supplement, it needs FDA (food and drug administration) approval to be marketed on a large scale.

Unfortunately, too many people still believe that FDA approval means a careful, scientific review of every application submitted to them to assure the consumer that any approved substance is absolutely safe, when it is not.

In reality, the FDA approves a GMO food or a drug based on data (which is not even read most of the time) provided by the manufacturer itself, and especially on the financial interests at stake.

The sentences against Big Pharma are proof of this:

[https://violationtracker.goodjobsfirst.org/summary?parent=&major\\_industry\\_sum=pharmaceuticals&offense\\_group\\_sum=&agency\\_sum=&agency\\_sum\\_st=&hq\\_id\\_sum=](https://violationtracker.goodjobsfirst.org/summary?parent=&major_industry_sum=pharmaceuticals&offense_group_sum=&agency_sum=&agency_sum_st=&hq_id_sum=)

# Vegan GMO burgers, a danger to health

What is happening with drugs is also happening with GMO foods. This problem is very similar to the Codex Alimentarius that we developed in our book on food supplements.

Let's note here, once again, that all the so-called scientific documentation is provided by Big Pharma or the food industry.

It is a bit like a polluter handing over to the judge the acceptable pollution standards so that his industrial activity can generate maximum profit.

Thus, the FDA, largely financed by Big Pharma and the agri-food industry, approves the substances of those who make it live.

[https://www.amazon.fr/William-Faloon/e/B005BV9EPA/ref=aufs\\_dp\\_mata\\_dsk](https://www.amazon.fr/William-Faloon/e/B005BV9EPA/ref=aufs_dp_mata_dsk)

Concerning the leghemoglobin, the effects observed during the studies are nothing special, they are the effects observed in general with GMOs, i.e. metabolic alterations and an inflammatory state.

*The company maintains that SLH is safe to eat. It wanted the US Food and Drug Administration to agree with its self-declared conclusion that SLH is "GRAS" (Generally Recognized As Safe), providing reassurance for consumers. But in 2015, in response to Impossible Foods' first application, the FDA refused to agree that the substance was safe. It responded with tough questions for the company, as revealed in documents obtained under a Freedom of Information request.*

*The FDA was concerned that SLH has never been consumed by humans and may be an allergen. The agency pointed out that the safety information submitted by Impossible Foods was not specific enough: "Although proteins are a part of the human food supply, not all proteins are safe. Information addressing the safe use of modified soy protein does not adequately address safe use of soybean leghemoglobin protein from the roots of the soybean plant in food."*

*The FDA concluded, "FDA believes that the arguments presented, individually and collectively, do not establish the safety of SLH for consumption, nor do they point to a general recognition of safety."*

Before giving its approval, the FDA is doing a semblance of investigative work on a GMO, SLH, which it is concerned about its allergenic potential. It is some kind of a joke, because this is the case for all GMOs!

Proteins are accepted or not by our immune system. A genetically modified protein is recognized as an antigen by our immune system and can trigger:

- allergies,
- autoimmune diseases by its partial resemblance to tissues of our body,
- chronic inflammations by activation of cytokines (inflammation mediators),
- reproductive disorders, nervous system development disorders and many other problems.

Many GMO plants are already commercialized in the U.S. such as soybeans, tomatoes, wheat, corn, etc., and many animals have also become GMOs such as beef, salmon, pigs, etc. Obviously, these GMOs are found in Canada, South America, Africa, India, Europe.

Only profit and the control of seeds through patents motivate the development of GMOs.

<https://www.youtube.com/watch?v=nPEcVaVpFjA>

# Vegan GMO burgers, a danger to health

There is no benefit to agriculture, the environment or consumers.

Their danger to health is immeasurable given their ability to affect the consumer as well as the entire food chain, and this in a totally uncontrollable way, as demonstrated by the use of GMO mosquitoes.

<https://www.infogm.org/5050-insectes-OGM-une-aberration-ecologique?lang=fr#encadre>

*2017: Impossible Foods tries again*

*In 2017 Impossible Foods tried again with a new application for GRAS status. It submitted data from a study that the company had commissioned in which rats were fed SLH.*

*Although Impossible Foods had in its 2015 submission told the FDA it intended to conduct a 90-day feeding study (the standard length for subchronic toxicity in rats), the company said that following "feedback" from the agency, it had decided on a shorter study of 28 days.*

*While this change would cut costs for Impossible Foods, it is not in the public health interest. That's because the shorter the duration of a study, the less likely it is to find health effects such as organ damage, which take time to show up.*

*The number of animals and duration of a feeding study are two key design elements in an investigation of the safety of a GM food substance.*

*It was always unlikely that SLH would have strong and obvious toxic effects in the short term; any adverse effects from a novel food substance would likely be subtle. Long-term studies with relatively large numbers of animals are required in order to reveal the significance of such effects. Given these requirements, it seems clear that Impossible Foods' study was statistically weak. There were too few animals in each test group (10 per sex per group) and again, the study was too short in duration (28 days in a rat is equivalent to just 2-3 years in a human) to clarify any health concerns from long-term consumption of this product.*

Animal studies are the cause of the biggest scandals of all time concerning many drugs whose side effects were only discovered when they were administered to humans. The thalidomide drama is a striking example. We can also specify that vivisection is not compatible with medical ethics.

Here, the logic is the following: genetically transforming a yeast to imitate blood and trying to justify its harmlessness by a biased animal study.

How can one prove that a genetically modified food is safe? Well, we can't, because a GM food always has consequences on our metabolism, whether it is in the short, medium or long term. It depends on the amount ingested and the interaction of this GMO with other GMOs, pesticides, heavy metals and other pollutants.

Testing a substance does not give you any information when that substance is in a human body already polluted by thousands of other substances. To claim that 28 days of testing on rats is equivalent to 2-3 years in humans is totally false.

This statement is based on the metabolism of rats and mice which is much faster than ours, but 28 days of life does not replace 2-3 years. The amount of other pollutants you can ingest in 2-3 years cannot be demonstrated by the effect of a single substance in 28 days (and this is only one of the many biases of this kind of studies).

# Vegan GMO burgers, a danger to health

The evaluation of the problems on the very short term is thus an alibi, as it is detailed in the article. The medium and long term evaluation is very difficult, because more toxic effects can appear when a GMO is consumed with other toxic substances for months or years, and these studies are simply not feasible in the laboratory.

Thus, when cancer occurs, the industry blames each other and escapes justice.

## *Potentially adverse effects in SLH-fed rats*

*In light of these limitations, it is remarkable that the SLH-fed rats did show a large number of statistically significant potentially adverse effects, compared with the control group – for example:*

- unexplained transient decrease in body weight gain*
- increase in food consumption without weight gain*
- changes in blood chemistry*
- decreased reticulocyte (immature red blood cell) count (this can be a sign of anemia and/or damage to the bone marrow where red blood cells are produced)*
- decreased blood clotting ability*
- decreased blood levels of alkaline phosphatase (can indicate malnutrition and/or celiac disease)*
- increased blood albumin (can indicate acute infection or damage to tissues) and potassium values (can indicate kidney disease)*
- decreased blood glucose (low blood sugar) and chloride (can indicate kidney problems)*
- increased blood globulin values (common in inflammatory disease and cancer)*

*The fact that these changes were seen despite the statistical weaknesses of the study (stemming from the short duration and low number of animals in each group) gives particular reason for concern.*

Despite all the inconsistencies we have discussed and a biased study, many side effects have appeared, which is hardly surprising since we repeat here, no GMO is harmless.

## *Reproductive changes in SLH-fed females?*

*In the study, apparent disruptions in the reproductive cycle were found in some groups of females fed SLH. In normal healthy rats, the uterus fills up with fluid during the proestrus phase of the cycle, in the run-up to the fertile and sexually receptive phase (estrus). In the SLH-fed rats, significantly fewer "fluid filled" uteri were seen. This correlated with decreased uterus weight, as might be expected.*

*In response to this finding, Impossible Foods commissioned a second rat feeding study, which found no effect on the SLH on the rats' estrus cycle. The company concluded that the findings of the first study had been a mere artifact of the experimental method used.*

*For the sake of the women who may eat the Impossible Burger on a regular basis, we hope that the company is correct.*

# Vegan GMO burgers, a danger to health

It is not surprising that a GMO product would alter a reproductive cycle, which is particularly sensitive to hormonal and blood changes. It is not specified here whether the second study was carried out under exactly the same conditions, but it can be noted here again that one can make a study say almost anything one wants.

*All effects dismissed*

*Impossible Foods dismissed all these effects as "non-adverse", as having "no toxicological relevance", as "transient" on the grounds that they appeared to reverse themselves after some days, and as not dependent on the dose (i.e. the effect did not increase with increasing dose).*

*It is true that the adverse outcomes may appear somewhat haphazard. However, the fact that there were so many statistically significant changes in multiple organs and systems suggests that closer scrutiny of the safety of SLH is urgently required. The apparent Impossible Foods dismissed all these effects as "non-adverse", as having "no toxicological relevance", as "transient" on the grounds that they appeared to reverse themselves after some days, and as not dependent on the dose (i.e. the effect did not increase with increasing dose).*

*The apparent randomness of the effects may be due to the fact that the study design was statistically weak. And it is well known that toxic effects do not always follow a linear dose-response pattern. Dismissing the findings as irrelevant appears irresponsible.*

*The only way of ascertaining if potentially adverse effects seen in short studies are truly adverse or have lasting consequences is to extend the study length to the rats' full lifetimes (2-3 years) and to do multigenerational testing. In this case, neither was done.*

Here we are told about a real problem concerning adverse effects: their non-dose dependence!

The quote: "everything is poison, nothing is poison: it is the dose that makes the poison" of Paracelsus is unfortunately false for most of the chemical pollutants created by man.

Toxicology was built on this kind of lie until the discovery of DNA alterations by trace doses of PCBs or ionizing radiations (Chernobyl). In the time of Paracelsus, the hundred thousand man-made chemical molecules did not exist, the rules that can be applied to most natural substances cannot be applied to man-made toxic substances.

A majority of synthetic toxic substances are always poisonous, regardless of the dose. What may vary is their mechanism and degree of toxicity, which explains "that toxic effects do not always follow a linear dose-response pattern. So what is the point of marketing toxic substances? First, the profit for their manufacturer, second, the degradation of our health, which represents a mountain of profit for Big Pharma.

# Vegan GMO burgers, a danger to health

## *FDA capitulates*

*Impossible Foods' second attempt to obtain GRAS status for SLH succeeded and the FDA issued a "no questions" letter, indicating that it had no further questions.*

*Contrary to what many people believe, such letters are not an assertion by the FDA that the food in question is safe. They state that the company asserts that the food is safe and remind the company that it, and not the FDA, is responsible for ensuring that it only puts safe foods on the market.*

*"No questions" letters may protect the FDA from liability in case something goes wrong. But they do not protect the consumer from unsafe novel foods.*

Finally, what had to happen happened, and this authorization does not make the company responsible for its product, except if a very specific, even unique, undesirable effect were to occur with the consumption of leghemoglobin... which, physiologically, has no chance of happening.

Indeed, the toxicity of a substance is manifested by its contribution to the development of well-known diseases (cancers, diabetes, autoimmune diseases, allergies, etc.) with, of course, the difficulty of blaming a single substance!

Thus, the game is won in advance for the industry. Once the administrative obstacle, i.e. FDA authorization, is eliminated, the way is open for great profits.

## *Another GMO ingredient*

*In 2019 Impossible Foods introduced a new recipe for its Impossible Burger. In addition to GMO-derived SLH, the burger now contains another GMO ingredient: protein from herbicide-tolerant soy. The company introduced soy protein to replace wheat protein in order to improve the texture and to avoid gluten, the protein in wheat that some people cannot tolerate.*

*As a result, Impossible Burger Version 2.0 can contain residues of the "probable carcinogen" glyphosate, the main ingredient of the herbicide used on GM soy.*

*Testing by Health Research Institute Laboratories, commissioned by the advocacy group Moms Across America, found glyphosate at a level of 11.3 ppb. The level was 11 times higher than the Beyond Meat burger, another plant-based burger that is made from non-GMO ingredients. (However, Beyond Meat's crashing stock suggests that the hype over any fake meat product is misplaced.)*

*Knowing the concerns that the use of GMO soy protein and glyphosate residues may raise, Impossible Foods CEO Pat Brown has gone to some lengths to reassure the buying public. But based on what the rat feeding studies tell us about the potential health effects of the Impossible Burger, the company would be well advised to shelve SLH and there formulate their product with natural – and if possible organic and minimally processed – ingredients.*

# Vegan GMO burgers, a danger to health

The advice that closes this article is certainly the most important point to develop, and the smartest too!

But let's come back to glyphosate, which is only one of the many pesticides used in industrial agriculture. Let's remember that traces of pesticides, each more dangerous than the other, are found in all foodstuffs produced by conventional agriculture.

[https://www.generations-futures.fr/wp-content/uploads/2017/05/rapport\\_assiette\\_toxique\\_221110.pdf](https://www.generations-futures.fr/wp-content/uploads/2017/05/rapport_assiette_toxique_221110.pdf)

It is therefore not surprising to find a higher dose of glyphosate in glyphosate-tolerant GMO soybeans, since this tolerance allows for even more pesticides to be sprayed on the crops. In summary, GMO soy is toxic (its impact in farms where animals are fed GMO soy is well known) and glyphosate is toxic. So we have two good reasons to leave any product of this type behind for good.

So the advice to "formulate your product with natural and if possible organic and minimally processed ingredients" makes sense. The good news is that 100% plant-based hamburgers or burgers (which means the same thing) made with organic and healthy foods already exist.

Here are two examples:

- <https://www.fr.nu3.ch/products/hu3-jackfruit-burger-bio?variant=31728796467252>

- <https://www.vegetalsquare.fr/accueil/184-excellent-vegan-burger-100g-x10-pieces.html>

Making the choice to cook your own burgers is even better.

There are dozens of recipes, and here is one of the best in our opinion:

<https://nouveauraw.com/main-dishes/veggie-burger/>

But the question is: what are we looking for in a burger? Convenience? Sure. The burger is a kind of sandwich, after all. We can use a round, and especially wholemeal, bread (which is not necessarily the case for burgers served in restaurants), fresh vegetables (sprouted seeds, avocado, tomatoes, onions, lettuce, pickles), a delicious homemade vegetable sauce and voila, the meal is ready.

The vegetable ingredients to make the burger are numerous and as diverse as mushrooms, tofu, textured soy, oatmeal, wheat, jackfruit, oilseeds such as pecan or cashew nuts, chia, tapioca, corn, rice, etc. For a person who is gluten-free, no problem, just eliminate the wheat and oats if desired.

In short, a homemade veggie burger made with organic ingredients can be a healthy part of a diet without any problems.

For those who wish to continue to eat processed, or even ultra-processed, veggie burgers with flavors, sugars, and other additives are available in supermarkets. Are they worse than meat burgers? Certainly not.

Let's remember that meat contains trans fatty acids, saturated fats, drug residues, heavy metals and pesticides, hormones, too much choline, a lack of antioxidants, vitamins, minerals, parasites, and finally zero fiber, but 100% suffering. So, the choice is quickly made for those who have no interest in eating well, they might as well eat industrial food but vegetable food.

For those who want to combine pleasure and health, usefulness and pleasure, the choice is just as simple, the essential being the taste and quality of the ingredients. For this, there is no need for fake blood "of the leghemoglobin", but simply of healthy and tasty ingredients!

# Join Our Experts

## Learn optimal eating and holistic lifestyles to live your full potential!

Holistic Natural Health Experts are your guide to experiencing peak health. Learn with our experts how to create your most thriving and regenerative life.

Your health is the most important asset you have. Learn how to live in optimal health, and overcome challenges with personalized holistic solutions.

Whether you prefer to learn through one-on-one coaching, webinars, ebooks, or articles, our virtual clinic is available anytime, anywhere, offering you a comprehensive platform to support your growth.



### You may benefit from our support in a range of situations including:

- Identifying optional medical procedures and evaluating the pros and cons of each
- Understanding medical test results and reports
- Find natural products to replace pharmaceuticals and chemical treatments when possible
- Ideas for staying healthy and protected while traveling and on vacation
- Strategies for improving your health at work
- Deepened understanding of how your life choices impact your health
- Clarifying health goals that are meaningful and achievable
- Developing a vision of your optimal health and thriving for longevity
- Any other personal requests or concerns on any health related issue



**Holistic Natural Health**  
Experts

In one-on-one coaching sessions, we offer analysis and treatment options as diverse as our clients themselves. Connect with our experts from the comfort of your own home.

Expert lead webinars, lectures, conferences, and Q&As accessible through your home browser, or from anywhere on your phone or tablet. Enjoy our advanced yet easy-to-use software to expand your options for finding the most holistic and comprehensive health knowledge.

Access ebooks filled with decades of experience and holistic knowledge, synthesized from our team's lifelong passion to find and spread solutions for optimal health. Learn the fundamentals about Nutrition, the Immune System, How Natural Medicine differs from Conventional, and more.

Explore articles and synopses on topics from a wide range of holistic lifestyles. Whether you're passionate about Nutrition, Immune system, Digestion, Sleep, Detoxification, Fasting, Movement, Ecology, or Sustainability, or whether you want to understand better health problems such as Chronic Inflammation, Pain, Allergies, Auto-immune, and Cardiovascular Disease, Cancer, and many more, our expert insights have you covered.

*Join our membership program to access the holistic library For Free!*

[www.HolisticNaturalHealthExperts.Com/Enroll](http://www.HolisticNaturalHealthExperts.Com/Enroll)