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Are You Drinking GMO Yeast Milk?

Analysis by Dr. Joseph Mercola | December 20, 2023

STORY AT-A-GLANCE

- Synthetic dairy products, including milk made from genetically engineered yeast, are being touted as environmentally friendly health foods that should replace real milk from cows and other animals
- Along with missing important micronutrients that are abundant in real milk, fake milk contains compounds that have never before existed in the human diet
- Ninety-two mysterious, unknown compounds were detected in the fake milk that don't exist in real milk
- None of these compounds have been tested for safety by the U.S. Food and Drug Administration
- Tech oligarchs and venture capitalists are funding most fake food technologies, which gives globalists unprecedented power and control over human health

Synthetic dairy products, including milk made from genetically engineered yeast, are being touted as environmentally friendly health foods that should replace real milk from cows and other animals. But this deceptive greenwashing is putting human health at risk, according to Dr. John Fagan, a molecular biologist who worked with the U.S. National Institutes of Health for 8.5 years.

Fagan is cofounder and chief scientist at the Health Research Institute (HRI). He spoke with Errol Schweizer for an episode of his podcast, "The Checkout," detailing concerning new findings about "animal-free" dairy. Along with missing important micronutrients that

are abundant in real milk, fake milk — which Fagan and others refer to as a "synbio milk-like product" — contains compounds that have never before existed in the human diet.

"It's really strikingly different. It just shows that this is not like milk. You can't say that this is nutritionally like milk in any way," Fagan says.[1]

Full-Spectrum Analysis Reveals Unknown Compounds in Fake Milk

At Fagan's HRI, they use "cutting-edge mass spectrometric and molecular genetic approaches to make the invisible visible."[2] This full-spectrum analysis is capable of revealing so-called "nutritional dark matter," even in foods as mundane as wheat. The fact is, an estimated 85% of the nutritional components in common foods remain unquantified. The health implications of most compounds also remain largely unknown. New Scientist notes:[3]

> *"This is also true of individual micronutrients. 'Consider beta-carotene,' says [Albert-László Barabási at Harvard Medical School, who coined the term nutritional dark matter] … 'It tends to be positively associated with heart disease, according to epidemiological studies, but studies adding beta-carotene to the diet do not show health benefits.*
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> *One potential reason is that beta-carotene never comes alone in plants; about 400 molecules are always present with it. So epidemiology may be detecting the health implications of some other molecule.' Another probable cause is the effect of the microbiome on dark nutrients, says [FooDB founder David] Wishart. 'Most dark nutrients are chemically transformed by your gut bacteria.*
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> *That's probably why studies on the benefits of different foods give relatively ambiguous results. We don't properly control for the variation in gut microflora, or our innate metabolism, which means different people get different doses of metabolites from their food.'"*

We know even less about the constituents of processed foods and synthetic foods that ignorantly claim to be "equivalents" to whole foods, such as "animal-free meats" or "animal-free milk."

At HRI, Fagan and colleagues are using their full-spectrum analysis for a new category in the food industry — synbio milk-like product. For a bit of backstory, in 1994 Fagan returned close to $614,000 in grant money — and withdrew a request for an additional $1.25 million — to protest genetic engineering and the release of GMOs into the environment.

At the time, he said, "The benefits of genetic engineering have been oversold, and the dangers have been underrepresented."[4] His efforts to advocate for food purity and safety, nutrition and food security have continued via HRI.

FDA Hasn't Tested the 92 Unknown Compounds in Fake Milk for Safety

As Fagan explains to Schweizer, one form of synthetic biology involves bacteria, yeast or fungus cells genetically engineered to produce another compound, in this case cow milk proteins. The idea is once you have milk proteins, you can make something from that that supposedly is milk, he says. But Fagan and colleagues used a mass spectrometer to chart the differences in composition between synbio milk-like products, biodynamic milk and organic milk.

While important micronutrients exist in organic and biodynamic milk, they're missing, or very low in, synbio milk. Further, mysterious, unknown compounds were detected in the fake milk that don't exist in real milk. Fagan says:[5]

> *"These are small compounds, and they include things like … fungicide and other really weird compounds ... These are huge amounts of these compounds that are present in synbio milk and not present in real milk. Literally, I counted and there are 92 different compounds.*

> *Most of them are so uncommon that we don't even have names for them. And so we can say with good confidence that these compounds have never been part of the human food supply before, and yet they are the predominant small molecules in synbio milk."*

None of these compounds have been tested for safety by the U.S. Food and Drug Administration.[6] "This product has been put on the market without any safety testing, and your FDA — the FDA that you are paying taxes to watch and make sure your food is safe — looked the other way," Fagan says.[7]

The proteins in synbio milk are also different from proteins in real milk. "Most of the protein that they're putting into this synbio milk-like product is not milk proteins from cows, but it's fungus and yeast proteins … we don't know which, because that's one of their trade secrets."[8]

In recent years, the idea that we can replace whole foods with synthetic, genetically engineered or lab-grown alternatives that are wholly equivalent to the original food has taken root. In reality, that's simply impossible.

How can scientists create equivalence when they don't even know what 85% or more of the whole food they're trying to replicate consists of? Common sense will tell you they can't. It might look, smell and even taste similar, but the micronutrient composition will be entirely different and, as a result, the health effects will be incomparable as well.

Selling Precision Fermentation as 'Natural'

Fake food companies want you to believe their products are natural because they're made with components of plants, yeast or fungus, even though nothing like them exists in nature. Be on the lookout for their industry buzzwords like precision fermentation, a term the biotech industry is using to piggyback off the popularity of truly health-promoting natural fermentation.

Precision fermentation, however, is nothing like its natural counterpart. It's a form of synthetic biology that's been around for at least 20 years. It uses genetically engineered

microorganisms, such as yeast and bacteria, that are fermented in brewery-style tanks under high-tech, pharmaceutical grade sterile conditions. This is because these cultures are highly susceptible to contamination that could ruin the entire batch.

And, contamination can happen easily, so billions of dollars have been poured into this technology, which is using biological pathways that have never before existed in nature. Biotech firms have obliterated the precautionary principle, as the long-term outcomes are completely unknown, to produce fake meats, fake fats and fake milk.

But it's all serving the underlying agenda, which is total control and world domination. There's no easier way to achieve this than by taking control of the food supply. These fake, ultraprocessed foods give the globalists unprecedented power and control over human health, and they're using stealthy marketing techniques. As Schweizer wrote in Forbes:[9]

> *"The biggest set of questions here revolves around ownership, governance and social equity considerations. Just about all of this new food technology is heavily funded by tech oligarchs, venture capitalists, or the occasional celebrity. Bill Gates is just one such example. He made his fortune by enclosing, privatizing and scaling what had previously been mostly an open-sourced, common-pool resource: software.*
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> *The investor model here is very Silicon Valley: identify a particular market sector or category and its sales potential, fund the company to offset large losses as it scales, and compete aggressively with the goal of cornering this market as a monopoly or a duopoly. Think: Uber, Doordash, Instacart, Amazon. The investors throwing billions of dollars at such enterprises are not altruists …"*

Bill Gates' startup company **BIOMILQ**, announced in June 2020, is one such example. It's using biotechnology to create synthetic lab-made human milk for babies. Using mammary epithelial cells placed in flasks with cell culture media, the cells grow and are placed in a bioreactor that the company says "recreates conditions similar to in the breast."[10]

Aside from Gates, BIOMILQ investors include Jeff Bezos, Mark Zuckerberg, Richard Branson, Masayoshi Son, Jack Ma, Michael Bloomberg and Marc Benioff.[11]

Metabolic engineering is another major subset of precision fermentation, which involves methods such as next-generation sequencing, high-throughput library screening, molecular cloning and multiomics "to optimize microbial strains, metabolic pathways, product yields, and bioprocess scale-up."[12] Sounds just like something down on the farm, doesn't it?

Whether it's called precision fermentation, gene editing, GMO or something else, don't fall for the hype that it's good for you, for society or for the planet.

Is Synbio Milk Better for the Environment?

The idea that animal-free milk is "carbon neutral" and environmentally friendly is another marketing tool being used to promote this inferior product. In Forbes, Schweizer raises a host of important questions that consumers should be asking to get to the bottom of fake foods' true environmental impacts. Among them:[13]

- Is the nutrient bath derived from corn or soy, typically genetically modified to withstand high dosages of herbicides?
- What is the caloric conversion and nutrient uptake efficiency of the microbes compared to animal livestock?
- How much farmland acreage would be impacted?
- How much waste material is produced by such microorganisms relative to sellable product?
- What kind of testing has been done to understand the potential environmental impact for if and/or when the microbes escape the confines of a fermentation plant, particularly as the technology scales?

When these types of inputs are factored in, fake foods are far from sustainable. Fagan explains:[14]

> *"The reality is that many of the carbon footprint calculations have been done starting with the fermentation process and going forward, but where did the high fructose corn syrup come from that is the primary energy component that goes into these fermentations?*
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> *… And you look at that industrial agriculture and you add that carbon footprint on to what they have been using in their calculations and suddenly it goes way in the wrong direction. And so we can't even use the sustainability arguments to justify what's being done. It just doesn't work."*

Real Food Is Best

Just as was the case with GMOs, raising awareness about the dangers of fake foods, including synbio animal-free milk, is important, especially in this early and aggressively expanding phase. Tell your social circle that to save the planet and support human health, it's necessary to skip all the fake food alternatives and opt for real food instead.

When you shop for food, know your farmer and look for regenerative, biodynamic and/or grass fed farming methods, which are what we need to support a healthy, autonomous population. As Fagan puts it:[15]

> *"The biggest thing to keep in mind … we need to trust Mother Nature and go with what she has developed. Her R&D stretches back billions of years. So, there's a lot of deep knowledge there that's optimized for life. We should be putting our attention on maximizing that and creating an environment that supports that. So, purity of food and simplicity, all of these things are really important."*

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