According to PETA, Veggie Burgers Cause Cancer

By Alex Berezow, PhD — August 21, 2018

Imagine sinking your teeth into a nice, juicy hamburger. Then, imagine being told that the hamburger isn't made from beef after all. Instead, it's entirely vegetarian. Impossible, right? Soy burgers are nasty. There's no way that anyone could pull this off.

Not so, says Impossible Foods, a company that claims to have done just that. (I have not yet had the honor of trying one of these veggie burgers, but Reason's Ron Bailey has -- and he loved it [1].) Not only does it taste good, but because it is entirely made from plants and plant products, it is far better for the environment. Apparently, this company has found a way for you to have your "beef" and eat it, too.

Some of the people that you think would love this innovation -- namely, environmentalists and animal rights activists -- actually hate it. Why? It appears to be completely ideological: Impossible Foods uses genetic modification to make a key ingredient.

One of the reasons beef tastes so good is because of heme, a molecule that contains iron and serves as the binding site for oxygen in the protein myoglobin [2], which is found in muscle cells. (Heme is also found in hemoglobin in red blood cells.) On its website, Impossible Foods [3] explains how it has genetically modified yeast to produce a similar molecule, called leghemoglobin, found in soy plants. It then adds this molecule to its veggie burgers.

There is absolutely nothing even remotely controversial about any of this, unless you happen to be a strident anti-biotechnology activist. And that's precisely who Friends of the Earth and PETA are.

Using PETA's Logic, Soybeans Cause Cancer

Two months ago, Friends of the Earth predictably smeared Impossible Burgers. It released an
absolute farce of a "report [4]," in which it fearmongered over chemicals, genetic modification, and food processing. But there was nothing unique in these complaints; indeed, these are old, worn-out arguments that organic worshippers routinely use to demonize conventional or biotech-enhanced foods.

The real whopper (no pun intended) came from PETA. On Twitter, PETA said:

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Replying to @science2_0

Impossible Foods’ big claim to fame is that there’s heme in its burgers. Well, here’s a shocker: This heme contains more iron than that found in the heme of a similar serving of red meat. Having too much iron in your blood can mean a greater risk of developing cancer.

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This is laugh-out-loud ludicrous. People who have excess iron in their blood are suffering from a genetic disease called hemochromatosis [5]. You do not get toxic levels of iron in your blood by eating a hamburger or veggie burger.

But, let’s play devil’s advocate and pretend that PETA is right. If they truly believe that the veggie burger from Impossible Foods causes cancer because of its iron content, then they should avoid soybeans like the plague.

According to Impossible Foods’s nutrition information [3], a 3-ounce burger contains 3 mg of iron, which is 15% of the recommended daily value. One cup of raw soybeans [6], on the other hand, contains 29.2 mg of iron, which is well over 100% of the recommended daily value. Cooked soybeans have a lot less iron (anywhere from 5 mg to 8 mg per cup, depending on the data source), but still more than Impossible Foods’s veggie burger. What else has a lot of iron? Spinach.

Will PETA now announce that soy and spinach cause cancer?