Viewpoint: Anti-vaccine, anti-GMO groups use coronavirus outbreak to stir unfounded 5G-cancer fears

L

eave it to science denialists to exploit a global crisis and tragedy to spread health hysteria.

As the world struggles to slow the rapid spread of a novel coronavirus, the anti-vaccine <u>Children's Health Defense</u> (CHD) and anti-GMO <u>Moms Across America</u> (MAM) have taken a break from <u>suing pesticide manufacturers</u> and promoting organic food as a <u>solution to school shootings</u> to tackle what they claim is another looming public health 'crisis': Wireless internet access.

CHD, headed by plaintiff's attorney Robert F. Kennedy, Jr., (a key attorney in the glyphosate litigation), and MAM, founded by organic food campaigner Zen Honeycutt, have teamed up in an attempt to block California from <u>expanding 5G wireless access</u> to millions of public school students, a move that could help them continue their schooling while waiting out the COVID-19 pandemic at home.

CHD and MAM claim the state's proposal could do "irreparable harm to our children" by exposing them to dangerous radiation and increasing their cancer risk. Following a <u>February lawsuit</u> filed by CHD challenging the Federal Communications Commission's (FCC) safety guidelines, the two activist groups sounded the alarm in a "call to action" on March 22, asking supporters to contact California Governor Gavin Newsom and urge him to reconsider <u>the 5G expansion</u>:

Children's Health Defense, together with Moms Across America and 5G Free California, is launching a campaign to have Governor Newsom reconsider his decision and to encourage him to take leadership in protecting the health of our children from the proven harms of wireless radiation and to lead the way with safer and faster wired technology

. . . .

Further deployment of harmful wireless infrastructure in our schools will cause further and even irreparable harm to our children [T]he recent Federal government's <u>National</u> <u>Toxicology Program study</u> found CLEAR EVIDENCE that this radiation causes cancer and breaks DNA. <u>Thousands more studies</u> proved profound harms from wireless technology radiation.

This is a familiar trope in the growing science rejectionist wing of the liberal activist community that campaigns against vaccines, GMO and gene-edited crops, safe agricultural chemicals such as glyphosate, and food irradiation to kill dangerous bacteria. Their campaigns, usually relegated to the netherworld of the internet, occasionally creep into mainstream media and cause much havoc.

Last October, Scientific American startled the science world when it ran a widely derided <u>article by a well-known science denier</u>, Joel Moskowitz, titled "We Have No Reason to Believe 5G is Safe." Moskowitz believes, among other kooky things, that the State of California is withholding evidence that cell phones cause cancer.

We Have No Reason to Believe 5G Is Safe

The technology is coming, but contrary to what some people say, there could be health risks



Credit: Scientific American

Despite these claims, there is no sound evidence to suggest that 5G technology poses a cancer risk to children, or to anyone else for that matter. The activist campaign is an attempt to advance an anti-technology agenda when parents are experiencing heightened concern for their children's safety. More importantly, the 5G-cancer rhetoric illustrates why CHD and MAM, groups that claim to be looking out for public health, are really engaged in an ideological crusade that proceeds regardless of the facts.

5G causes cancer?

Public health concerns about 5G technology stem from the fact that radiofrequency (RF) radiation emissions from wireless devices and cell phone towers are possibly carcinogenic. Unlike <u>x-rays</u>, <u>gamma</u> <u>rays</u>, <u>and ultraviolet (UV) light</u>, RF radiation is non-ionizing and thus isn't strong enough to directly damage DNA. RF emissions are also <u>tightly regulated</u> by the FCC. But worries persist, according to the American Cancer Society:

If RF radiation is absorbed in large enough amounts by materials containing water, such as food, fluids, and body tissues, it can produce heat. This can lead to burns and tissue damage. Although RF radiation does not cause cancer by damaging DNA in cells the way ionizing radiation does, there has been concern that some forms of non-ionizing radiation might have biological effects that could result in cancer in some circumstances.

Some research suggests the RF radiation 5G utilizes could be harmful, and several experts have said we

need more data to make a definitive statement either way about the technology. However, activists have cherry picked these studies and conservative statements from researchers to bolster their case, while ignoring the larger body of <u>independent studies</u> and analysis from regulatory agencies (<u>including the</u> FDA, CDC and FCC) indicating that RF radiation is unlikely to pose a cancer risk.

cell phone

Image not found or type unknown

Commenting on the <u>National Toxicology Program (NTP) study</u> cited by CHD and MAM as "CLEAR EVIDENCE", for example, <u>the ACS explained that</u> the experiment yielded inconsistent results and exposed lab rats to very high doses of radiation for prolonged periods of time, conditions that don't approximate human radiation exposure through wireless technology. Strikingly, male rats in the study exposed to RF waves actually lived longer than the unexposed control rats.

"Because of this," the American Cancer Society added, "the NTP has noted that the study results cannot be directly applied to humans. Still, the results add to the evidence that cell phone signals might potentially impact human health." The US Food and Drug Administration (FDA) made a similar point in its analysis of the NTP study on <u>cell phones and cancer</u>, stressing the importance of looking at <u>all the</u> <u>evidence</u>:

Animal studies like this one contribute to our discussions on this topic, but we must remember the study was not designed to test the safety of cell phone use in humans, so we cannot draw conclusions about the risks of cell phone use from it. We also must thoroughly evaluate and take into consideration the totality of the data, and do so within the context of the complete body of evidence rather than drawing conclusions from the results of a single study.

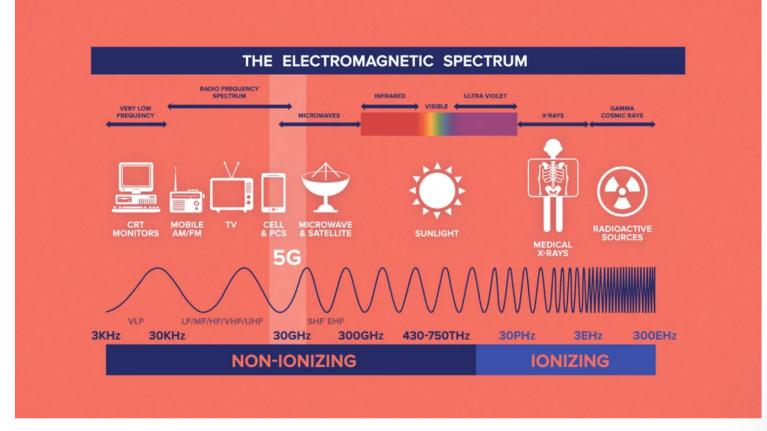
But the FDA's advice hasn't been followed. Studies linking wireless technology to cancer attract attention from fearful politicians and activists who want to solve problems, even when the problems probably don't exist.

"In the face of this seismic change [the introduction of 5G], some members of Congress are demanding 'proof' that the new technology will be 'safe,' and some health advocates are calling for a moratorium on the rollout of 5G technology," cancer epidemiologist Geoffrey Kabat argued in April 2019. "[F]or twenty-five years, the study of the effects of cell phones has been marked by giving much more weight to the occasional positive results, while ignoring the evidence that argues against the likelihood of adverse effects."

It's also worth mentioning that the frequencies in use by 5G are not really new. They've always existed, but these higher bands have generally only been utilized by the federal government, as the <u>FCC has</u> <u>explained</u>. In other words, there's a pretty decent chance you've been 'exposed' to these higher band frequencies for a long time without knowing it, yet the health consequences haven't materialized.

5G is perfectly safe. As the American Council on Science and Health noted:

It's not terribly different from the electromagnetic radiation associated with wi-fi and cell phones. The *New York Times* published an excellent article titled, "<u>The 5G Health Hazard That</u> <u>Isn't</u>," and CNET published a diagram depicting 5G's place in the electromagnetic spectrum. Note that it is located in the radio wave spectrum, close to the frequencies for cell phones, computers, microwaves, and satellites.



The electromagnetic spectrum is broken up into two categories: ionizing and non-ionizing. The highfrequency millimeter wavelengths that are expected to be used for some 5G deployments are in the nonionizing category.

CNET

Facts don't matter

Concerns about 5G and cancer fade after carefully assessing the evidence. But there's another reason to be skeptical of this new campaign to block the development of wireless infrastructure in California. People who reject mainstream scientific thinking often do so because their political and ideological commitments are based on <u>distrust of authorities</u>, such as scientists and public health officials. The data are always forced to conform to this rigid worldview.

This is why activists who see vaccines, crop biotechnology and pesticides as mortal threats often suddenly turn their attention to scaremongering about wireless technology in the middle of a pandemic. As Timothy Caulfield, an expert on health law and policy at the University of Alberta <u>explained recently</u>:

The science communication battles surrounding topics such as genetically modified organisms, climate change, organic food, raw milk, fluoride and vaccines all contain

messaging that encourages a distrust of science, experts and government officials. You can't believe the science, the opponents and deniers will say, because the science and the experts are corrupted and not to believed.

Follow the latest news and policy debates on sustainable agriculture, biomedicine, and other 'disruptive' innovations. Subscribe to our newsletter. SIGN UP

We can find striking confirmation of Caulfield's observation throughout CHD and MAM's rhetoric. Children's Health Defense erroneously warns parents about the dangers of vaccines, <u>arguing</u>, "Shameful deception, fraud, and corporate interference now characterizes our government sponsored health programs and policy." Bayer's weed killer Roundup only remains on the market, says CHD founder Robert F. Kennedy, Jr., because "The EPA has become a captive agency, it's become an arm of the pollution industry."

Echoing the same talking point, <u>Moms Across America claims</u> "the CDC, the FDA, Merck, GlaxoSmithKline, Sanofi, Bayer AG/Monsanto, and other chem/pharma companies are "poisoning 300+ million people in America and hundreds of millions more around the world with their toxic products."

There is <u>no plot to suppress</u> the dangers of vaccines, which are <u>thoroughly tested and safe</u> for most people, and the chemical and pharmaceutical industries <u>don't own</u> the EPA or the FDA. But no matter what the evidence shows, CHD and MAM offer essentially the same analysis of every issue, from vaccines and weedkillers to GMOs and 5G: these technologies are dangerous, and corporations with the help of government are hiding the facts from you.

This is a compelling narrative, indeed many movies follow the same basic plot. But we shouldn't make public policy based on good storytelling. Until these groups offer something more substantial than a rehashed conspiracy theory, we shouldn't worry about wireless technology giving us cancer.

Cameron J. English is the GLP's senior agricultural genetics and special projects editor. <u>BIO</u> . Follow him on Twitter @camjenglish