Viewpoint: Big Tech-Federal government conspiracy or sound science? A government agency just canceled its $30 million dollar study designed to tell us whether cell phones can cause cancer

Since the introduction of cell phones en masse in the 1990s, a small but vociferous faction of health advocates has claimed widespread evidence that radiation from cell phones poses serious cancer risks. Those claims are disputed by the World Health Organization, joined by every major global or country-specific oversight agency, including the National Cancer Institute and the Food and Drug Administration in the United States.

But the issue is again in the news. Last fall, a French regulator — Agence Nationale des Fréquences (ANFR) – forced Apple to reduce the wattage on its iPhone 12s, due to radiation concerns. Note that is an older phone, introduced in 2020.

Reflecting the anti-big tech bias in Europe, other European Union member states are now debating whether to follow suit. Apple and other cell phone makers, whose phones are also now under scrutiny, deny the claim, citing the global consensus on cell phone safety. Nonetheless, they introduced patches, lowering the wattage.

The temperature of the never-dormant debate over cell phone safety rose a few degrees in the US over the past week, sparked by a guest essay by epidemiologist Devra Lee Davis in The Hill asking, “Why did [National Institutes of Health] abruptly halt research on the harms of cell phone radiation?”

Davis is head of the Environmental Health Trust, an organization advocating for stricter regulation of radiofrequency energy from cell phones and other sources.

Devra Lee Davis

She claims that the NIH sub-division National Toxicology Program “quietly” scuttled research on the “biological or environmental impacts of cell phones,” suggesting it was part of an industry-influenced coverup. She goes on to write:

> This decision comes despite results from the program’s carefully engineered and reviewed decade-long $30 million animal studies that found cancer, heart damage and DNA damage associated with exposure to cell phone radiofrequency radiation at levels comparable to those experienced by Americans today.

Let's unpack this "shocking reversal" as she characterizes it, and take a fresh look at the never-ending controversy.

The suspended research is actually a series of two-year toxicology studies in rats and mice conducted by the NTP. The NTP's objective was to help clarify potential health hazards, including cancer risk, from exposure to radiofrequency (RF) energy like that used in 2G and 3G cell phones. (New phones in circulation have been operating on the 5G network since 2020.)

The studies found that high exposure to radiofrequency energy (900 MHz) used by cell phones showed: "clear evidence of an association with tumors in the hearts of male rats; some evidence of an association with tumors in the brains of male rats; and some evidence of an association with tumors in the adrenal glands of male rats."

It was unclear if tumors observed in the studies were caused by exposure to RF in female rats (900 MHz) and male and female mice (1900MHz). Further toxicological studies by the NTP indicated that RF was associated with DNA damage.

Davis has one valid point. The public has a right to know the reasons behind the suspension of the NTP investigation. Was it due to the realization of technical problems stemming from the design of the study which could invalidate its results? After all, most of the data on 2G and 3G networks are already outdated and may not apply to 5G phones. Maybe the agencies had concluded that enough money had been spent

on this question, believing that resources should be diverted to other issues?

We will have to wait for papers describing the latest study results for insight into the NTP's decision to cancel the study.

However, in the context of raising appropriate still-unanswered questions about the study cancellation, Davis does the public, scientists, and the regulatory community a disservice in presenting a highly-skewed review on the potential health effects of RF.

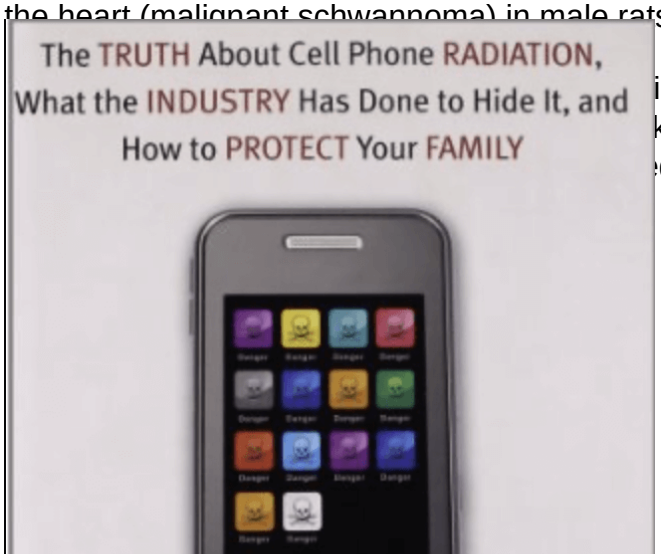
What's the evidence?

Davis claims that the NTP found clear evidence of "cancer, heart damage and DNA damage associated with exposure to cell phone radiofrequency radiation at levels comparable to those experienced by Americans today."

That's damning as written; but what did she leave out? What she selectively failed to report is that the NTP report found only weak health-related associations, the kind that scientists find all the time when examining such substances as hot dogs wine or even going to the barber or hairdresser. What she failed to disclose is that the radiation levels are far below what the Federal Communications Commission (FCC) limits assume cannot cause harm, i.e., the level below which the cell phone energy raises the body temperature.

No other global health risk agency interprets the data in the tortured way Davis does. For example, the International Commission on Non-Ionizing Radiation Protection (ICNIRP), a body that assesses health effects due to non-ionizing radiation, evaluated the results of the NTP animal study in 2020. ICNIRP identified the study's strengths but also "some major weaknesses, including a lack of blinding, difficulties interpreting statistical analyses due to the association between longer lifespans and tumor occurrence in the exposed rats (NTP only), and failure to account for chance. ICNIRP concluded that these substantial limitations preclude conclusions being drawn concerning RF EMFs and carcinogenesis."

One salient anomaly in the NPT study results was the finding of several rare types of cancer in male, but not female, rodents. For example, it would need to be explained how RF energy caused a rare cancer of the heart (malignant schwannoma) in male rats but not in female rats.



ing a living off making these claims for well more than 15
k. Her central claim: Big Phone is hiding the truth to
d.

woman's risk of breast cancer. Once promoted by Dr. Oz, has been debunked by the breast cancer surgeon David Gorski:

> There's no currently known biological mechanism by which it could happen … [I]t is absolutely physically impossible because radio waves can't break chemical bonds and thus can't cause mutations.

Davis' 'sky is falling' rhetoric is echoed by fellow travelers in the technology-suspicious environmental activist movement, including the Environmental Working Group, Environmental Health Trust and the International Agency for Research on Cancer. Echoing these groups, Davis, refuses to give weight to the high-quality studies to date which have failed to substantiate a detectable risk from RF.

This is not to say that there could not possibly be any adverse effects. (We can never be sure that there might not be some residual risk that studies have failed to pick up). It is simply to acknowledge that a vast amount of research has been done over 3-4 decades and has not turned up reproducible health effects below the level at which heating occurs. This should be a cause for reassurance. But Davis et al. prefer to incite fear and then assume the role of savior who is bringing to light knowledge that is being suppressed.

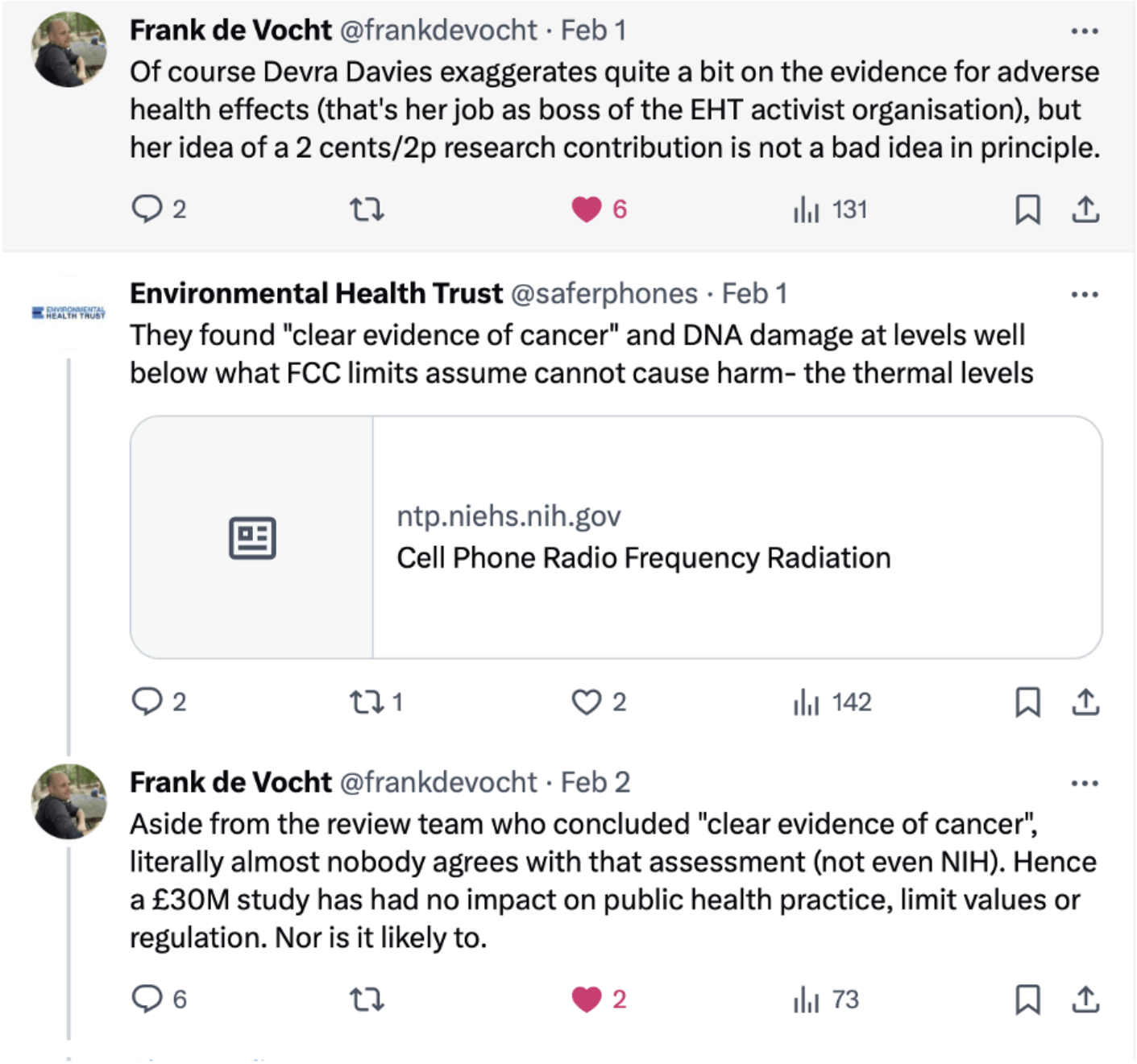
Because she is first and foremost an advocate, Davis has little interest in acknowledging what has been learned in the two decades since she launched her campaign or in acknowledging the challenges confronting studies like the NTP animal study.

Her latest article stirred a tempest on X, where fringe activists jumped in to echo her claims. Finally, an adult in the room stepped in. Frank de Vocht is a professor of epidemiology and public health at the University of Bristol with an interest in the health effects of non-ionizing radiation. His comment on Davis' grave warning of widespread human health dangers posed by cell phone radiation:

> Aside from the review team who concluded "clear evidence of cancer," literally almost nobody agrees with that assessment (not even NIH). Hence, a £30M study has had no impact on public health practice, limit values or regulation. Nor is it likely to."

As to Davis's suggestion that nefarious machinations are responsible for the suspension of the NTP study, de Vocht suggests a more mundane possibility:

> What if, and hear me out, they just didn't find anything sufficiently worrying for public health to be able to justify spending 10s of millions again? …it will be interesting to see when the studies are published.

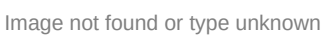


From Larry King to The Hill

Fears that cell phones might cause cancer exploded as a public issue in 1993 due to a lawsuit brought against a cell phone manufacturer and showcased on the television program Larry King Live. However, in spite of the theater, there is actually compelling evidence that cell phones are not causing an epidemic of brain cancer. Since the 1980s, the number of cell phone users worldwide has gone from zero to approximately 7.41 billion. During this period, there has been no detectable increase in rates of brain cancer in countries, such as the Nordic countries, with high-quality cancer registration systems.

In the United States, the National Cancer Institute's SEER Program data for the period 1992 to 2020 actually show a slight decline in the incidence of brain cancer during this period despite the massive increase in cell phone use.

screenshot at ?am



We may be at a similar juncture to where we were in the late 1990s and the aughts regarding electromagnetic fields (EMF), which was then an intense focus of research and public concern. In 1997, the National Research Council issued a report finding no evidence of adverse health effects, and a large study of EMF and childhood leukemia conducted by the National Cancer Institute failed to detect any association. After decades of research and diminishing returns, it was time to prioritize other areas.

Writing in 2010 regarding what had been learned about the health effects of EMF, the epidemiologist David Savitz published a paper titled "The etiology of epidemiologic perseveration: when enough is enough."

> We are not asking "should this topic be studied at all?" or "would a definitive answer to the question be beneficial?" but rather, "what is the incremental benefit of a specific new investigation in light of what has already been done?" … Without some reckoning among priorities in this manner, proponents will advocate based only on perceived marginal benefits, no matter how small or how costly to attain. … We need to recognize when it is time to move on to other important questions where our talents and efforts will be more beneficial.

Geoffrey Kabat is a cancer epidemiologist and the author of *Hyping Health Risks: Environmental Hazards in Daily Life and the Science of Epidemiology* and *Getting Risk Right: Understanding Science of Elusive Health Risks.* Find Geoffrey on X @GeoKabat