



International EMF Alliance
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To Whom It May Concern:

Misconception of 5G

David Robert Grimes provided a blog - Don't Fall Prey to Scaremongering about 5G: <https://blogs.scientificamerican.com/observations/dont-fall-prey-to-scaremongering-about-5g/> in response to the opinion article by Dr Joel M. Moskowitz with the headline - We Have No Reason to Believe 5G Is Safe: <https://blogs.scientificamerican.com/observations/we-have-no-reason-to-believe-5g-is-safe/?fbclid=IwAR1ubea0PTG2t8F-adla-XzEd7f7jNDu4Hz6Ym06k0rv5ccCiccNOt3nM8>. Both items are reported in Scientific American.

Grimes claims that peer reviewed scientific research is flawed while clinging to the 'thermal heating' point of view, which does not consider other forms of risk from Radio Frequency Radiation (RFR) exposure other than heating, turning a blind eye to the effects from the non-thermal frequencies, pulsations and other signalling characteristics.

Grimes attempts to diminish concerns of international scientists over cell phone and wireless risks. He quotes Paul Simon: "All lies and jest, still the man hears what he wants to hear and disregards the rest." In fact, it is Grimes himself who is hearing what he wants to hear by disregarding a very large body of science showing non-thermal biological and health effects from RFR exposure.

Grimes claims Interphone is the most robust and reliable data, suggesting there was no causal relationship between phone use and brain tumors. This is false. The highest court in Italy favored Hardell's study over the 2010 Interphone studies in a decision published on 19th October, 2012. The Labor Law section of the Italian Supreme Court affirmed in a court ruling that the plaintiff had developed a brain tumor caused by his heavy mobile phone use with the supreme court awarding compensation in the form of a disability pension. In the ruling, the Italian court favored Hardell's study over the Interphone studies that had been partially funded

by the telecommunications industry. Hardell's studies concluded that the use of cell phones for more than 10 years did lead to an increased risk of two types of brain tumors – acoustic neuroma and glioma. These studies were accepted by the court as more reliable and independent than Interphone. Report here: <http://www.inhouselawyer.co.uk/legal-briefing/mobile-phones-brain-tumours-italian-court/>

In addition, the Interphone studies that Grimes claims are the most reliable actually found positive results, showing cumulative time of 1640 hours or more on a cell phone is associated with an increase in brain cancer. This corresponds to less than 30 minutes per day of mobile phone use for 10 years, highlighting risk for brain tumors from mobile phone use in heavier users at that time. Heavier use at that time would now be considered very light use today. We therefore do not know how Grimes can draw the following conclusion: "There was no relationship between phone use and incidences of brain tumors". This is simply not true.

We suggest Grimes gets up to speed with the scientific consensus reached by the International Agency for Research on Cancer (IARC). IARC is a sub-group of the World Health Organization with its role to monitor and identify global causes of cancer. The Interphone studies contributed to the weight of evidence leading to IARC members classifying the entire RF/EMF spectrum as a "**2B Possible Human Carcinogen**". We would like to reinforce the fact that members of IARC with collective judgment found scientific consensus in reaching this decision. Grimes has misled suggesting there is no scientific consensus. The vote was nearly unanimous: 29 to 1. Download report here: https://www.iarc.fr/wp-content/uploads/2018/07/pr208_E.pdf

Grimes should also read the following Interphone review by Dr. Lennart Hardell. <https://lennarthardellenglish.wordpress.com/category/interphone/>

The Hardell studies correlated the first mobile phone usage with incidences of brain tumors over a 20+ year period of time, longer than any other epidemiological studies. They found a clear correlation between cell phone usage and two types of brain tumors, acoustic neuromas and gliomas. The Hardell Group are calling for an urgent upgrade to the classification of RF - EMF from 2B to Group 1 (Known Carcinogen), the same category as tobacco. Dr Hardell stated unequivocally: "**The agent is carcinogenic to humans**".

Grimes is relying on the heavily flawed Danish study saying: "The study did not reveal any obvious link between cell phone usage and tumor rates." This Danish study is criticized by many leading experts for excluding over 200,000 people, the very people who were business users at that time and most likely to be the most heavily exposed group. Here is a collection of critiques of the Danish study updated in 2011. <http://electromagnetichealth.org/electromagnetic-health-blog/critical-comments-danish-study/>

Grimes claims that the Interphone studies are the most reliable and robust data with careful controls and large sample groups and yet he fails to highlight the association in brain tumors in connection with mobile phone use with significant risk increased. The paper; "15 Reasons for Concern, Science, Spin and the Truth about Interphone," highlights the design flaws contained within the Interphone studies, these include the following:

- Selection bias.
- Insufficient latency time.
- The definition of a regular cell phone user.
- Exclusion of young adults and children.
- Exposure to other transmitting sources are not considered.
- Exclusion of brain tumor types.
- Exclusion of brain tumor cases because of death or too ill to respond.
- Recall accuracy of cell phone use.

Funding bias was also a cause for concern. It is a sobering thought when you consider that Interphone still found a correlation with brain tumors and mobile phone use despite design flaws that underestimated risk. We have no doubt that the risk is far greater than reported in the telecom-funded Danish mobile phone subscriber study and in the telecom-funded Interphone studies. Download the report: https://www.powerwatch.org.uk/science/reasons_a4.pdf

It sadly comes as no surprise to hear that the incidence of deadly brain tumors in England doubled between 1995 and 2015 as published in the Journal of Environmental and Public Health. This research demonstrates an increase in the most deadly form of brain tumor, glioblastoma multiforme (GBM), one of the two tumors linked to cell phone usage by Dr. Hardell. Typical survival after diagnosis is only about 12 months. The paper highlights a possible factor is the widespread growth in cell phone use and exposure to radio-frequency radiation (RFR) during this period. Download the paper here: <https://www.powerwatch.org.uk/news/20180709-glioma-increase-paper.asp>

For Grimes to classify those who are concerned as conspiracy theorists denies the reality of the world we are living in. Concern over RFR's biological and health effects is based on published science showing risk and is backed by doctors and scientists around the world. This notable group of professionals includes an international working group of scientists, researchers and public health policy professionals (The BioInitiative Working Group). The BioInitiative Reports [2007 and 2012] were prepared by 29 authors from ten countries, with ten holding medical degrees (MDs), 21 PhDs, and three MsC, MA or MPHs. Among the authors are three former presidents of the Bioelectromagnetics Society (BEMS), and five full members of BEMS. Criticism from Grimes is therefore either woefully ignorant or he has an ulterior objective.

Furthermore, there are no studies proving this technology is safe for long term exposure or for children to use, but there are thousands proving it is unsafe. The BioInitiative Working Group has reviewed thousands of peer reviewed scientific papers: <http://www.bioinitiative.org>. This group of researchers highlights the fact that bioeffects have clearly been established to occur with very low exposure (non-thermal levels) to electromagnetic fields and radiofrequency radiation. The report calls for the precautionary approach and urgent action due to chronic EMF-related diseases that are a potential risk for everyone. These diseases include adverse effects on the central nervous system, cancer, both initiating and promoting effects, impairments of certain brain functions, loss of memory and cognitive function, infertility and immune dysfunction.

Many scientists have called for action to better protect the public, including:

- 1) The International EMF Scientist Appeal to the United Nations (www.emfscientist.org)
- 2) Rejection of the current ICNIRP guidelines for not being protective of health (www.emfcall.org)
- 3) Halting the 5G rollout until adequate safety studies have been done. (www.5Gappeal.eu).

The evidence of increased cancer risks has since been strengthened by further human studies, as well as toxicology studies in animals, which demonstrated clear evidence of tumors. The \$30 million US National Toxicology Program (NTP) RF studies and the Italian Ramazzini Institute ten-year research project both found clear evidence of malignant tumors. Two different institutes with laboratories in different countries, totally independent of each other and both producing parallel consistent findings, reinforces the validity of these ground-breaking animal studies. An external peer-review panel of 11 scientists complimented the methodology of the NTP study and concluded that the results showed clear evidence of carcinogenic activity. Grimes commentary on NTP is largely based on the views of a surgical oncologist David Gorski who did not review the underlying experimental NTP data and whose bio reveals he

received funding for research from the Department of Defense, one of the primary beneficiaries of higher RF levels.

Grimes provides a paragraph referencing a study published from 1999 claiming there is no indication of cancer for radar workers despite exposure to exceptional levels of RFR. A more recent paper, *Radio Frequency radiation-related cancer: assessing causation in occupational/military setting* by Peleg et al. (2018) highlights the fact that exposures in military settings increased the risk of (hematolymphatic) HL cancers. The paper concludes, "Accordingly, the RFR military exposures in these occupations should be substantially reduced and further efforts should be undertaken to monitor and measure those exposures and to follow cohorts exposed to RFR for cancers and other health effects. Overall, the epidemiological studies on excess risk for HL and other cancers together with brain tumors in cellphone users and experimental studies on RFR and carcinogenicity make a coherent case for a cause-effect relationship and classifying RFR exposure as a human carcinogen (IARC group 1)." This paper also takes previous research into account, which indicates a cumulative body of evidence. Download the paper here: <https://www.ncbi.nlm.nih.gov/pubmed/29433020>

Yet Grimes claims we are not seeing an impact? In fact, it appears that we are facing a cancer tsunami. In 2014 Prof. Bernard Stewart, University of New South Wales and Christopher Wild, PhD, Director of the WHO's International Agency for Research on Cancer (IARC) announced to the world at the Royal Society, London that there are 14 million new cancer cases diagnosed per year worldwide, with that number predicted to grow to 22 million new cases per annum over the next two decades. Download the report: WHO Knew – The Elephant in the Room by Susan Foster: https://www.radiationresearch.org/images/rrt_articles/WHO-Knew-The-Elephant-in-the-Room-2014.pdf

For years industry affiliated scientists have offered incomplete, inconsistent and contradictory information, leading to confusion for the public as well as policy makers, resulting in members of the public seeking justice via the courts. There is a lack of responsibility taken with policy makers saying they are relying on government and industry funded scientific reports from scientists. Then these same scientists say it is the duty of policy makers to protect public health.

Grimes tried to marginalize Joel M. Moskowitz, PhD by referring to him as an activist citing low-quality studies in arguing wireless radiation is dangerous. Beginning with the second point, Grimes is not able to offer any proof that this technology is safe. Grimes claims the weight of evidence shows no risk, when the opposite is true with IARC officially classifying RF/EMF as possibly causing cancer since May 2011. Dr Moskowitz provided a link to 500 peer reviewed studies finding harmful biological or health effects from exposure to RFR at intensities too low to cause significant heating. Joel M. Moskowitz, PhD, is the Director of the Center for Family and Community Health at the School of Public Health at the University of California, Berkeley. He has been translating and disseminating the research on wireless radiation health effects since 2009, after he and his colleagues published a review paper that found long-term cell phone users were at greater risk of brain tumors. He is an unpaid adviser to the International EMF Scientist Appeal and Physicians for Safe Technology.

As for Dr. Moskowitz being an activist, he might be flattered by Grimes' "accusation". When Dr. Moskowitz heard that the California Department of Public Health (CDPH), had compiled information on the risks of cell phone use and issued a warning, only to bury that warning within the bureaucracy at CDPH, he went across campus to Berkeley's Law School where attorneys assisted Dr. Moskowitz *pro bono*. When Joel Moskowitz was denied a public records request, UC Berkeley attorneys represented him in a lawsuit against the California Department of Public Health. Dr. Moskowitz prevailed, and now cell phone warnings are now found on the CDPH website.

<https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHIB/CDPH%20Document%20Library/Cell-Phone-Guidance.pdf>

Do we need to wait for the courts to hold those who are offering inexact, incomplete and contradictory information accountable or will leaders in society, including the media, step into integrity and stand up to those who, like Grimes, appear to have the intention to mislead the public on this extremely important health issue?

Sincerely,

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