

A CALL TO ACTION

ON THE INVISIBLE POLLUTION OF 5G EMISSIONS

JUNE 26th, 2019

Highlights:

1. What is 5G.
2. Radiation from electromagnetic frequencies (EMFs) have been shown to be harmful to mammalian health.
3. Wireless radiation from 5G towers are exponentially more intense than that of current cellular towers.
4. Chronic exposure to EMF via wireless internet routers, cellphones, computers, and cellphone towers has been shown to reduce motor skills, brain function, and has been linked to the progression of neurodegenerative diseases.
5. Chronic EMF exposure has also been linked to declining fertility rates among couples.
6. EMF pollution has been linked to harming the wellbeing of other lifeforms, including bees, birds, and plants.
7. What we as a local community can do to stop the damage from uncontrolled, super intense wireless EMF exposure.

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What is 5G?

5th generation wireless technology is a term used to describe the next level of telecommunication hardware for the purpose of increasing the transmission speed of data across cellphones, computers, and other “internet of things” devices (e.g., robots, automated cars, “smart televisions”, gaming consoles)¹. The telecom industry has invested tremendous resources into the ever expanding range of intensified EMF, one reason being that if there are 5G networks then people will “need 5G smart-phones”. As recent polls have shown, nearly 95% of the adult American population owns a cellphone, which in itself demonstrates a very large potential market.²

The key difference between 5G technology and previous telecommunication frequencies (3G, 4G, 4G LTE) is that unlike prior networks, 5G will work off of the transmission of millimeter waves (MMWs) instead of currently used microwaves. 5G frequencies are considered “extremely high frequencies” and are in the frequency range of 30 to 300 gigahertz (GHz). In other words, MMWs are longer than infrared waves or x-rays, but are shorter and more intense than microwaves or radio waves³. To put this in perspective, current 4G networks use frequencies of 6 GHz.⁴ The supposed purpose of 5G, as stated by the Federal Communications Commission (FCC) and the telecommunications industry (i.e., Verizon, AT&T, T-Mobile, etc.) is that 5G will facilitate the extremely fast transfer of data from one device to another. Another reason is that current microwave networks are already used up, and therefore MMWs are a wavelength that is “unused”.

However, since MMWs do not travel far, do not travel through buildings well, or use the atmosphere as a means to travel long distances like radio waves, the industry plans on investing over \$56 billion dollars to install 5G antennas on nearly every single city block⁵. Some sources say the industry plans on installing up to 800,000 new towers – or “smart cells” as they are called – across the United States.⁶

Interestingly enough, MMWs have so far have only been used in weapons systems for the military. In the last ten to twenty years, contractors for the Pentagon have published data regarding weapons that involve the use of MMWs in the range of 95 GHz that can cause a person’s skin to feel a burning sensation, as if “they’ve stepped in

front of a blazing oven, but without killing them”. These non-lethal weapons have been dubbed “heat rays”.⁷

The primary concern with the roll out of 5G networks is that the frequencies will literally saturate residential and workplace areas in MMWs. The consistent and chronic saturation of wireless radiation, even at levels low as that used in cellphones, have been linked to heart problems and increased risks of cancer. Furthermore, the health risks regarding 5G networks have not been properly addressed by the FCC, as the FCC recently allowed telecom companies the use of wavelength bands between 28 to 47 GHz, as well as some bands above 95 GHz, without even considering the industry to submit proper safety studies.⁸

The three main countries currently involved in the roll out of 5G networks are South Korea, China, and the United States.⁹

Human Health Concerns

In May 2011, the World Health Organization’s (WHO) International Agency for Research on Cancer (IARC) classified radiofrequency electromagnetic fields between the range of 30 Khz (kilo hertz) and 300 GHz as “possibly carcinogenic to humans” (Group 2B). Other substances that are classified in this same group include lead, the herbicide 2,4-D, and ethylbenzene. The IARC supports their decision from multiple studies investigating the connection between wireless cellphone use and the incident rate of aggressive brain cancer.¹

As noted by the Wyoming based organization *Environmental Health Trust* led by Dr. Devra Davis, PhD.,

Published peer reviewed science already indicates that the current wireless technologies of 2G, 3G and 4G – in use today with our cell phones, computers and wearable tech – creates radiofrequency exposures which poses a serious health risk to humans, animals and the environment. Scientists are cautioning that before rolling out 5G, research on human health effects urgently needs to be done first to ensure the public and environment are protected. [sic]²

In December of 2015, an appeal signed by 215 scientists and doctors from 41 countries – published in the *European Journal of Oncology* – called for a moratorium on the roll out of 5G radiation, citing obvious concerns relating to human health. They write that,

[p. 180-181] Numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. **Damage goes well beyond the human race, as there is growing evidence of harmful effects to both plant and animal life.** [sic]³

Less than two years following the first petition, another appeal was signed by over 180 scientists and doctors from 36 countries to once again recommend a moratorium on the development of 5G infrastructure within Europe. They cite that the installation of 5G frequencies is a direct violation of numerous international treaties, including the Precautionary Principal⁴, Resolution 1815 (Council of Europe 2011)⁵, and The Nuremburg Code (1949)⁶. They also cite that the currently enacted safety guidelines regulating wireless frequencies – as set by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) – are designed to protect the private sector. They explain that

The current ICNIRP "safety guidelines" are obsolete. All proofs of harm mentioned above arise although the radiation is below the ICNIRP "safety guidelines". Therefore new safety standards are necessary. The reason for the misleading guidelines is that "conflict of interest of ICNIRP members due to their relationships with telecommunications or electric companies undermine the impartiality that should govern the regulation of Public Exposure Standards for non-ionizing radiation...To evaluate cancer risks it is necessary to include scientists with competence in medicine, especially oncology."

The current ICNIRP/WHO guidelines for EMF are based on the obsolete hypothesis that "The critical effect of RF-EMF exposure relevant to human health and safety is heating of exposed tissue." However, scientists have proven that many different kinds of illnesses and harms are caused without heating ("non-thermal effect") at radiation levels well below ICNIRP guidelines. [sic]⁷

In 2018, the National Toxicology Program of the National Institute of Health published a 25 million dollar series of laboratory experiments that clearly showed brain and heart cancers in rats exposed to EMF levels of less than 1 GHz for less than 10 hours a day. Although tumor associations were clearly linked in male subjects, the association was not so clear in females, thereby leading the authors to conclude that the results were not entirely conclusive. Regardless, this study only highlights the need for regulation, as humans – including at the start of fetal development – are more likely exposed to much higher EMF levels 24 hours a day. According to the concluding statement,

[p. 163] Under the conditions of this 2-year whole-body exposure study, there was some evidence of carcinogenic activity of GSM [global System for Mobile Communication]-modulated cell phone RFR [Radio Frequency Radiation] at 900 MHz in male ... Sprague Dawley (SD) rats based on the incidences of malignant schwannoma in the heart. The incidences of adenoma or carcinoma (combined) in the prostate gland, malignant glioma and benign or malignant granular cell tumors in the brain, adenoma of the pars distalis in the pituitary gland, pheochromocytoma (benign, malignant, or complex combined) in the adrenal medulla, and pancreatic islet cell adenoma or carcinoma (combined) **may have been related to cell phone RFR exposure.** ... Increases in non-neoplastic lesions in the heart, brain, and prostate gland of male rats, and of the heart, thyroid gland, and adrenal gland in female rats occurred with exposures to GSM cell phone RFR at 900 MHz. Increases in non-neoplastic lesions of the heart, brain, and prostate gland occurred in males, and of the brain in females exposed to CDMA [Code Division Multiple Access] cell phone RFR at 900 MHz.⁸

In corroboration with the NTP study, the Ramazzini Institute of Italy published a similar study that exposed rats to 1.8 GHz. They report that,

The [Ramazzini Institute] findings on far field exposure to RFR [radiofrequency radiation] are consistent with and reinforce the results of the [The National Toxicology Program] study on near field exposure, as both reported an increase in the incidence of tumors of the brain and heart in RFR-exposed Sprague-Dawley rats. **These tumors are of the same histotype of those observed in some epidemiological studies on cell phone users.** These experimental studies provide sufficient evidence to call for the re-evaluation of IARC conclusions regarding the carcinogenic potential of RFR in humans. [sic]⁹

Various health concerns related to EMF pollution have also been documented in numerous other studies, including:

- a 2009 report commissioned by the Austrian Social Insurance for Occupation Risks (AUVA) and conducted by the Vienna Medical University confirming previous reports of health risks associated with mobile cellphone technology. Their report directly challenged currently used guidelines regulating EMF radiation. Shortly after their report was published the Austrian Ministry of Health published and dispersed a flyer asking parents to talk to their children about the dangers of cellphones¹⁰.
- a 2008 study published in the *Open Ophthalmology Journal*, investigating bovine eye lens in vitro exposed to microwave radiation of 1.1 GHz for 90 cycles of 50 minutes for ten days. The authors reported that the
[abstract] results of this investigation showed that electromagnetic fields from microwave radiation have a negative impact on the eye lens. The lens damage by electromagnetic fields was distinctly different from that caused by conductive heat.¹¹
- a 2011 mortality/cancer incident study on people living close to cellphone transmitter towers emitting levels of non-ionizing radiation conducted by a team of researchers from Brazil. They reported that people living within 500 meters of a cell phone tower had significantly increased risk of developing tumors in comparison to groups that did not live near the towers.¹²
- a 2015 study of mice conducted by a team of German researchers exposed to test groups to less than 1 GHz of EMF radiation for 72 weeks, and studied the effects from conception to birth. Tumors of the lung and liver, as well as lymphomas incidences were nearly double that of the control; however, no clear dose-relationship was proven.¹³
- a 2016 analysis of the data gathered by the International Commission of Non-Ionizing Radiation Protection (ICNIRP) conducted by a team of Iranian researchers concluded that

[Conclusions] that people who spend more than 50 minutes a day using a cellphone could have early dementia or other thermal damage due to the burning of glucose in the brain.¹⁴

- a 2016 literature review conducted by a team of Chinese neurologists from the Xuzhou Central Hospital of China explain a potential link between the increasing rates of neurodegenerative diseases like Alzheimer's disease and EMF radiation pollution.
 - [p. 1970-1971] ... we can conclude that the current exposure to microwaves during the use of cell phones is not safe for long-term exposure, despite the current scientific opinion. Absorption of the cell phone signal into the brain of children does not exclude serious neuronal damage, as evidenced in rat studies (...). In addition, the increased risk of tumors of the head associated with long-term cell phone use is evident since radio frequency **may cause the blood-brain barrier to leak and to favor the damage of genetic material which consists of common precursors to cancer (...)**. Accordingly, poor fertility and the increased chance of miscarriage and childhood cancer have been associated with cell phone storage in front pockets. Notably, the data suggested that the hippocampus can be injured by long-term microwave exposure (...), which may result in the impairment of cognitive function due to neurotransmitter disruption. **These results suggest that precautionary approach underlying the restrictive use of cell phones constitutes essential appropriate guidelines to follow ...**¹⁵
- In 2018, an analysis of cognitive function of male adolescents attending school either near or away from cellphone towers (emitting less than 1GHz of radiation) conducted by a team of Iranian researchers was published in the *American Journal of Men's Health*. They reported that
 - [p. 5] Despite the limitation of this cross-sectional study, it is identified that high exposure to RF-EMF produced by [mobile phone base station towers] is associated with a decrease in fine and gross motor skills and spatial working memory and attention in school adolescents compared to students who had been exposed to low RF-EMF. [sic]¹⁶
- In 2010, a pair of American researchers authored a literature review of the then current data regarding the biological effects of EMF radiation from cell towers and other sources. They note:

- [p. 374] Many biological effects have been documented at very low intensities comparable to what the population experiences within 200 to 500 ft (*60–150 m) of a cell tower, including effects that occurred in studies of cell cultures and animals after exposures to low-intensity RFR. **Effects reported include: genetic, growth, and reproductive; increases in permeability of the blood–brain barrier; behavioral; molecular, cellular, and metabolic; and increases in cancer risk. ...**
- **Ten years ago, there were only about a dozen studies reporting such low-intensity effects; currently, there are more than 60.** This body of work cannot be ignored. These are important findings with implications for anyone living or working near a transmitting facility.
- [p.380] From the early genesis of cell phone technology in the early 1980s, cell towers **were presumed safe when located near populated areas because they are low-power installations in comparison with broadcast towers.** This thinking already depended on the assumption that broadcast towers were safe if kept below certain limits. Therefore, the reasoning went, cell towers would be safer still. The thinking also assumed that exposures between cell and broadcast towers were comparable. In certain cities, cell and broadcast tower transmissions both contributed significantly to the ambient levels of RFR (...).
- **There are several fallacies in this thinking, including the fact that broadcast exposures have been found unsafe even at regulated thresholds.** Adverse effects have been noted for significant increases for all cancers in both men and women living near broadcast towers (...); childhood leukemia clusters (...); adult leukemia and lymphoma clusters, and elevated rates of mental illness (...); elevated brain tumor incidence (...); sleep disorders, decreased concentration, anxiety, elevated blood pressure, headaches, memory impairment, increased white cell counts, and decreased lung function in children (...); motor, memory, and learning impairment in children (...), nonlinear increases in brain tumor incidence (...); increases in malignant melanoma (...); and nonlinear immune system changes in women (...). (The term “nonlinear” is used in scientific literature to mean that an effect was not directly proportional to the intensity of exposure. In the case of the two studies mentioned previously, adverse effects were found at

significant distances from the towers, not in closer proximity where the power density exposures were higher and therefore presumed to have a greater chance of causing effects. This is something that often comes up in low-level energy studies and adds credence to the argument that low-level exposures could cause qualitatively different effects than higher level exposures.)¹⁷

Furthermore, there are multiple studies showing a clear link between chronic exposure to EMF fields and declining fertility functions. Considering the effects EMF has on our cells and the ability to break and alter DNA strands, this would make sense. A pair of researchers from South Korea explain that,

Through *in vitro* and *in vivo* studies, **EMF exposure was found to alter the reproductive endocrine hormones, gonadal function, embryonic development, pregnancy, and fetal development** ... These effects were different according to the frequency, duration of exposure, and strength of EMFs. Humans in modern society cannot avoid various kinds of EMFs during household and occupational activities, but should be aware of the biological hazard of EMFs. The effort to avoid EMF exposure and techniques to protect or relieve EMF radiation are required to preserve our reproductive potential. [sic]¹⁸

These concerns have also been voiced by a two professors from the Jawaharlal Nehru University School of Environmental Science of New Delhi, India. They explain in a 2012 paper that there

[p. 2-3] ... are many sources of EMF in our environment and this non-ionizing radiation interacts with the human body. **Use of electronic household items and cell phones are reported to decrease fertility potential in men by decreasing sperm count, motility, viability, inducing pathological changes in sperm and testes morphology, and so on (...)**. In accordance with this, several authors (...) focused mainly on the male reproduction patterns. ... Spermatogenesis is a complex process and it is influenced by many genes and hormones. It takes place in the testis, which may be exposed to various microwave frequencies which are currently in use (...). Among various factors of infertility, oxidative stress has become the main focus of interest as a potential cause of male infertility (...). Male infertility is commonly associated with high rates of DNA (deoxyribonucleic acid) damage in the

spermatozoa and such damage is correlated with a wide range of adverse clinical outcomes. Several studies, especially at power frequency 50/60 Hz magnetic field have found an association of exposure to human health, with emphasis on a range of clinical conditions including childhood leukemia, brain tumours, genotoxicity and neurodegenerative disease, infertility, birth defects, increased risk of miscarriage, childhood morbidity and de novo mutations (...). Sperm DNA damage is therefore regarded as a potential risk factor to the development of normal human embryos leading to impaired embryonic development.¹⁹

In addition to human health concerns, several researcher teams have shown a direct link between EMF pollution and ecological harm, especially in the case of pollinating species such as the honeybees.^{20 21 22 23}

Response of the Private Sector

In light of the depth of scientific literature briefly presented thus far, perhaps the most convincing piece of evidence does not come from what most consider as “authoritative sources”, but rather from those who stand to suffer significant capital loss, such as the insurance industry. For example, Lloyds of London - an insurance market made up of specialists underwriting more than 50 leading insurance companies - issued a 2010 risk report on the insurance of electromagnetic fields. In their report they note that

[p. 16] Many comparisons can be drawn between EMF and asbestos, and it is useful to look at the history of asbestos and the implications for the insurance industry to see what could happen with mobile phones if they prove to be harmful.

[p. 20] With regards to the implication to insurance, as the current scientific evidence stands, it is unlikely that insurers will be liable for compensation for bodily injury on product liability policies. However, as asbestos has shown, new scientific developments coupled with a small number of key legal cases can change the situation very rapidly.¹

As the report noted, these “scientific developments” only took several years, as Lloyds of London began making amendments to their insurance policies. By February 18th, 2015, Lloyds of London’s UK agent - CFC Underwriting LTD. - issued a change of

policy regarding compensation from EMF pollution.² As they explain in their exclusion policy,

[p. 6] We will not

- a) make any payments on your behalf for any claim, or
- b) incur any costs or expenses, or
- c) reimburse you for any loss, damage, legal expenses, fees or costs sustained by you, or
- d) pay any medical expenses:

... [p. 7] [Exclusion] 32. Electromagnetic Fields

directly or indirectly arising out of, resulting from or contributed to by electromagnetic fields, electromagnetic radiation, electromagnetism, radio waves or noise.³

As CFC Underwriting explains regarding their recent policy change, they note that Exclusion 32 is a

General Insurance Exclusion and is **applied across the market as standard**. The purpose of the exclusion is to exclude cover for illnesses caused by continuous **long-term non-ionising radiation exposure i.e. through mobile phone usage**. (ibid).

Lloyds of London is not the only insurance company to re-write policies regarding damages from EMF pollution, as many insurance companies all around the world have redefined their definitions what constitutes damages from pollution. As *Environmental Health Trust* details in their report, insurance companies that have defined EMF as a form of pollution include⁴:

- New Day Underwriting Managers LLC.
- Vanner Insurance Agency.
- Delta Insurance.
- Federated Rural Electric Insurance Exchange.
- Marsh & McLennan Companies.
- Standard Publishing Corporation.
- The Austrian Social Insurance for Occupation Risks (Allgemeine Unfallversicherungsanstalt).

- A&M Insurance for Medical Professionals.
- Great American Insurance Group.
- Abu Dhabi National Insurance Company.
- Mutual of Enumclaw.
- Canadian ProSurance Architects & Engineers.
- Zurich Community Care Liability Insurance.

As a direct result of insurance companies refusing to insure EMF damage caused by the cellphone and telecommunication companies, companies like Verizon have issued warnings to investors – as early as 2014 – on the risks of their business.

[p. 19] We are subject to a substantial amount of litigation ... our wireless business also faces personal injury and consumer class action lawsuits relating to alleged health effects of wireless phones or radio frequency transmitters, and class action lawsuits that challenge marketing practices and disclosures relating to alleged adverse health effects of handheld wireless phones. We may incur significant expenses in defending these lawsuits. In addition, we may be required to pay significant awards or settlements.⁵

Verizon isn't the only one. Once again, as *Environmental Health Trust* notes, the following telecom companies have issued similar warnings to their investors. This list includes:

- BlackBerry Limited.

[p. 37] ... Although the Company's products and solutions are designed to meet relevant safety standards and recommendations globally, when used as directed, any perceived risk of adverse health effects of wireless communication devices could materially adversely affect the Company ...

[p. 38] There has also been public speculation about possible health risks to individuals from exposure to electromagnetic fields or radio frequency energy from the use of mobile devices ... there can be no assurance that future studies, irrespective of their scientific basis, will not suggest a link between electromagnetic fields from mobile devices and adverse health effects.

Other users of mobile devices with multimedia functions, such as MP3 players, have claimed that the use of such products has contributed to or resulted in hearing loss or other adverse health effects.⁶

- AT&T Inc.

[p. 39-39] Unfavorable litigation or governmental investigation results could require us to pay significant amounts...

As we deploy newer technologies, especially in the wireless area, we also face current and potential litigation relating to alleged adverse health effects on customers or employees who use such technologies including, for example, wireless handsets.

We may incur significant expenses defending such suits or government charges and may be required to pay amounts or otherwise change our operations in ways that could materially adversely affect our operations or financial results.⁷

- China Mobile Limited.

[p .13] Actual or perceived health risks associated with the use of mobile devices could materially impair our ability to retain and attract customers, reduce wireless telecommunications usage or result in litigation.

... we cannot be certain that future studies, irrespective of their relative reliability or trustworthiness, will not impute a link between electromagnetic fields and adverse health effects.⁸

- General Communications Inc.

[p. 71] Portable communications devices have been alleged to pose health risks, including cancer, due to radio frequency emissions from these devices. ... The actual or perceived risk of mobile communications devices could adversely affect us through a reduction in subscribers. Further research and studies are ongoing, with no linkage between health risks and mobile phone use established to date by a credible public source. However, GCI ... cannot be sure that additional studies will not demonstrate a link between radio frequency emissions and health concerns.⁹

- American Tower Corporation.

[p. 19] Our costs could increase and our revenues could decrease due to perceived health risks from radio emissions, especially if these perceived risks are substantiated.

... If a scientific study or court decision resulted in a finding that radio frequency emissions pose health risks to consumers, it could negatively impact the market for

wireless services, as well as our tenants, which could materially and adversely affect our business, results of operations or financial condition.

We do not maintain any significant insurance with respect to these matters.¹⁰

- Crown Castle International Corporation.

[p. 12] If radio frequency emissions from wireless handsets or equipment on our wireless infrastructure are demonstrated to cause negative health effects, potential future claims could adversely affect our operations, costs or revenues.

We cannot guarantee that claims relating to radio frequency emissions will not arise in the future or that the results of such studies will not be adverse to us.

If a connection between radio frequency emissions and possible negative health effects were established, our operations, costs, or revenues may be materially and adversely affected.¹¹

- Telefonica, S.A.

[p. 5] The risks and uncertainties involved in our businesses that could affect the matters referred to in such forward-looking statements include but are not limited to...

[p. 6] the effect of reports suggesting that electromagnetic fields may cause health problems;

[p. 22] The adoption of new measures by governments or administrations or other regulatory interventions in this respect, and any future assessment on the adverse impact of electromagnetic fields on health, may negatively affect the business, financial conditions, results of operations and cash flows of the Telefónica Group.¹²

- America Movil, S.A.B. DE. C.V.

[p. 10] Concerns about health risks relating to the use of wireless handsets and base stations may adversely affect our business.

Portable communications devices have been alleged to pose health risks, including cancer, due to radio frequency emissions. Lawsuits have been filed in the United States against certain participants in the wireless industry alleging various adverse health consequences as a result of wireless phone usage, and our subsidiaries may be subject to similar litigation in the future. Research and studies are ongoing, and there can be no assurance that further research and studies will not demonstrate a

link between radio frequency emissions and health concerns. Any negative findings in these studies could adversely affect the use of wireless technology and, as a result, our future financial performance.¹³

- T-Mobile US, Inc.

[p. 17] Our business could be adversely affected by findings of product liability for health/safety risks from wireless devices and transmission equipment, as well as by changes to regulations/RF emission standards.

Allegations have been made that the use of wireless handsets and wireless transmission equipment, such as cell towers, may be linked to various health concerns, including cancer and brain tumors. Lawsuits have been filed against manufacturers and carriers in the industry claiming damages for alleged health problems arising from the use of wireless handsets. ... There have also been other allegations regarding wireless technology, including allegations that wireless handset emissions may interfere with various electronic medical devices (including hearing aids and pacemakers) ...¹⁴

- Nokia Corporation.

[p. 35] There has been public speculation about possible health risks to individuals from exposure to electromagnetic fields from base stations and from the use of mobile devices. ... We cannot, however, be certain that future studies, irrespective of their scientific basis, will not suggest a link between electromagnetic fields and adverse health effects that could have a material adverse effect on our sales, results of operations, share price, reputation and brand value. ...

... We have been involved in several lawsuits alleging adverse health effects associated with our products, including those caused by electromagnetic fields and the outcome of such procedures is difficult to predict, including the potentially significant fines or settlements.

Even a perceived risk of adverse health effects of mobile devices or base stations could have a material adverse effect on us through reduction in the demand for mobile devices having an adverse effect, for instance through decreased demand for mobile networks or increased difficulty in obtaining sites for base stations.¹⁵

- Microsoft Corporation.

[Product-Related Litigation] Nokia, along with other handset manufacturers and network operators, is a defendant in 19 lawsuits filed in the Superior Court for the

District of Columbia by individual plaintiffs who allege that radio emissions from cellular handsets caused their brain tumors and other adverse health effects. ... We have assumed responsibility for these claims as part of the NDS [Nokia's Devices and Services Business] acquisition. ... The lawsuits also allege an industry-wide conspiracy to manipulate the science and testing around emission guidelines.¹⁶

- Telestra Corporation Limited.

The company has been documented for sending the following warning message to their subscribers:

Telestra reminder msg. For information on mobile use, Electromagnetic Energy and tips to reduce exposure visit: <http://telestra.com.au/mobiletips>. [sic]¹⁷

Local and International 5G Opposition

If you have read this paper this far and feel a sense of helplessness, then inform yourself of the others all around the world who have not stood idle, and have demanded the halting of 5G technology in their communities. For example, the city of Brussels, Belgium in April 2019 stopped the roll out of 5G amid unanswered health concerns. According to an article published in the Brussels Times,

In July, the government concluded an agreement with three telecom operators to relax the strict radiation standards in Brussels. But according to the Region, it **is now impossible to estimate the radiation from the antennas required for the service.**

“I cannot welcome such technology if the radiation standards, which must protect the citizen, are not respected, 5G or not,” Environment minister Céline Fremault (CDH) told Bruzz. **“The people of Brussels are not guinea pigs whose health I can sell at a profit.** We cannot leave anything to doubt,” she added. [sic]¹

Brussels is not the only city in the world to voice their concerns. On July 20th, 2018, the city of Segovia, Spain formed a human chain link protest across the city shortly following presentations from international scientists on the dangers of 5G.²

Municipalities across Italy, including Florence³, Rome⁴ and Rocca di Papa⁵, have all issued moratoriums on 5G installation.

In Russia, the Ministry of Defense has refused to use 5G frequencies amid health concerns.⁶

In Switzerland, officials of Geneva, Neuchatel, and Vaud have refused to issue 5G permits until safety studies have been done.⁷

In addition, there are numerous petitions being formed and signed all throughout the world calling for the suspension of 5G, including in the United Kingdom, Germany, Australia, and Germany.

In America, the city of Sebastopol, California forced Verizon to withdraw the construction of smart cell towers. Many other cities in California, including San Anselmo, San Rafael, Fairfax, Mill Valley, and Sievers are attempting to pass ordinances that prohibit the construction of 5G infrastructure.⁸ There are also reports that cities in Ohio, including Bexley, Columbus, Delaware, Westerville and Whitehall are taking legal actions to halt the construction of 5G infrastructure.⁹ In Baton Rouge, Louisiana, the mayor suspended the installation of 5G smart cells amid numerous complaints from residents.¹⁰

In the city of Hallandale Beach, local Floridian Carolina Lavayen managed to convince city commissioners to pass a resolution attempting to force the state legislature to investigate the health effects related to 5G infrastructure.¹¹ Likewise, the village of Greendale, Wisconsin, has also passed a resolution calling for the federal government to allow the local municipality control over the installation of 5G.¹²

In the state of New Hampshire, House Bill 522 was filed on June 6th, 2019, attempting to establish a commission to “study the environmental and health effects of evolving 5G technology”. As rightfully demanded in the bill,

- 1) Why the insurance industry recognized wireless radiation as a leading risk and has placed exclusions in their policies not covering damages caused by the pathological properties of electromagnetic radiation?
- 2) Why do cell phone manufacturers have in the legal section within the device saying keep the phone at least 5 mm from the body?
- 3) Why have 1,000s of peer-reviewed studies, including the recently published U.S. Toxicology Program 16-year \$30 million study, that are showing a wide-range of

statistically significant DNA damage, brain and heart tumors, infertility, and so many other ailments, been ignored by the Federal Communication Commission (FCC)?

- 4) Why are the FCC-sanctioned guidelines for public exposure to wireless radiation based only on the thermal effect on the temperature of the skin and do not account for the non-thermal, non-ionizing, biological effects of wireless radiation?
- 5) Why are the FCC radiofrequency exposure limits set for the United States 100 times higher than countries like Russia, China, Italy, Switzerland, and most of Eastern Europe?
- 6) Why did the World Health Organization (WHO) signify that wireless radiation is a Group B Possible Carcinogenic to Humans category, a group that includes lead, thalidomide, and others, and why are some experts who sat on the WHO committee in 2011 now calling for it be placed in the Group 1, which are known carcinogens, and why is such information being ignored by the FCC?
- 7) Why have more than 220 of the worlds leading scientists signed an appeal to the WHO and the United Nations to protect public health from wireless radiation and nothing has been done?
- 8) Why have the cumulative biological damaging effects of ever-growing numbers of pulse signals riding on the back of the electromagnetic sine waves not been explored, especially as the world embraces the Internet of Things, meaning all devices being connected by electromagnetic waves, and the exploration of the number of such pulse signals that will be created by implementation of 5G technology? [sic]

As of June 26th, 2019, only the cities of Minneapolis, Seattle and Chicago have installed and launched limited services for 5G networks. However several other major American cities have plans to install these towers in the near future, including San Jose, Atlanta, Dallas, New Orleans, Indianapolis, San Antonio, Jacksonville, Charlotte, Las Vegas, Orlando, Los Angeles, San Diego, San Francisco, and New York.¹³

Summary and What You Can Do

As former FCC Chairman Tom Wheeler so bluntly put, “Unlike most countries, we do not believe that we should spend the next couple of years studying what 5G should be or how it should operate.” Meanwhile, incumbent FCC Chairman Ajit Pai has claimed that the FCC places “high priority on the

safety of wireless services and devices”. Ironically, the FCC has not updated their regulations on EMFs since 1996. ¹

Contrary to what the FCC, EPA and private industry have to say, there is more than enough adequate peer-reviewed evidence to – at the very least – cease all current 5G emissions and all other untested wireless frequencies. These invisible emissions are a form of pollution that not only affect the human environment, but the entire biosphere in which all living organisms of the ground and air coexist. In real terms, what the industry in collaboration with regulatory agencies are doing is nothing short of gross negligence, incompetence and sinister abuse of authority. At worst, these actions should be considered a covert attempt of mass genocide.

As a result of the out dated Telecommunications Act of 1996, local municipalities are prohibited to use environmental or health concerns as a reason to interfere with the placement of cell towers. As a result, many local governments are arguing that smart cells are an “aesthetic problem” and will lower property values. The simple fact that the American people must argue in court for these radioactive cell towers – towers that are a mere ten meters away from schools, hospitals, and the bedroom window of infants - must go because they are “ugly” is nothing short of insanity. For the taxpayer funded Federal government to assume jurisdiction of the air over the lands of the American community, whilst those in positions of public office remain submissive, is not only repulsive, it is a direct abridgment of the Constitution and 10th amendment. ²

As to why the FCC and federal regulatory agencies remain silent regarding EMF pollution can only be summed up by one term: institutional corruption. This corruption is a form of high treason. The FCC is in the pockets of the telecom industry, just as the Federal Reserve is owned by the banks, the EPA in the pockets of the pesticide conglomerates, and the FDA in the pockets of the pharmaceutical cartels and food manufacturers. Their resources are stacked mightily on the infamous K street in Washington, for this is not a “partisan issue”. Both parties that call themselves “Republicans” or “Democrats” all have their coffers filled by the same check writers. And of course, the mainstream media consortium will dare not challenge the official narrative of the FCC. Moreover, in view of 5G as being an “economic stimulator”, the

Trump Administration has given the telecom gangs the go ahead green light to continue unopposed with this “evolution of technology”.

When one understands the true gravity of the situation, one can either feel utterly helpless and inept, or feel a great sense of injustice, betrayal and impulse for retribution.

As members of our community, and loyal citizens of the Constitutional Republic of the United States of America, we the people must dare not stand idle while these radioactive towers are constructed near our homes, schools, hospitals, and workplaces, for under the documents we hold sacred to the life, liberty and the pursuit of happiness, we the American people not only have right but an obligation to defend ourselves and our countrymen.

We must take collective action in order to resist this rampant and unrestricted pollution of EMF radiation.

1. Inform yourselves, your loved ones, neighbors, and all acquaintances of what is happening around us.
2. Call your local, state, federal, and city council member offices to inform them about this pollution, and demand that they fulfill their sworn obligation of serving and protecting the public.
3. Take proper measures to avoid being exposed by unnecessary levels of EMF, measures which include but are not limited to:
 - Shield your house from EMF with shielding minerals and technology.
 - Purchase technology or certain minerals known for harmonizing deleterious electromagnetic waves so that they are no longer harmful to the body.³
 - Turn off your wireless home router when not in use (i.e., when sleeping).
 - Do not let your children use smart-phones or be near high levels of EMF unrestricted.

- Stop putting your mobile smart-phone in your front pocket.⁴

4. If you are a resident of the city of Minneapolis, or state of Minnesota, here are several offices you should voice your concerns to.

- Hennepin County Sheriff

Dave Hutchinson

350 South 5th Street, Room 6, Minneapolis, Minnesota, 55415

612-348-3744

- Mayor of the City of Minneapolis

Jacob Frey

350 South 5th Street, Room 331 Minneapolis, Minnesota, 55415.

612-673-2100

- Minneapolis City Council Ward 1

Kevin Reich

350 South 5th Street, Room 307 Minneapolis, Minnesota, 55415

612-673-2201

- Minneapolis City Council Ward 2

Cam Gordon

350 South 5th Street, Room 307 Minneapolis, Minnesota, 55415

612-673-2202

- Minneapolis City Council Ward 3

Steve Fletcher

350 South 5th Street, Room 307 Minneapolis, Minnesota, 55415

612-673-2203

- Minneapolis City Council Ward 4

Phillipe Cunningham

350 South 5th Street, Room 307 Minneapolis, Minnesota, 55415

612-673-2204

- Minneapolis City Council Ward 5
Jeremiah Ellison
350 South 5th Street, Room 307 Minneapolis, Minnesota, 55415
612-673-2205
- Minneapolis City Council Ward 6
Abdi Warsame
350 South 5th Street, Room 307 Minneapolis, Minnesota, 55415
612-673-2206
- Minneapolis City Council Ward 7
Lisa Goodman
350 South 5th Street, Room 307 Minneapolis, Minnesota, 55415
612-673-2207
- Minneapolis City Council Ward 8
Andrea Jenkins
350 South 5th Street, Room 307 Minneapolis, Minnesota, 55415
612-673-2208
- Minneapolis City Council Ward 9
Alondra Cano
350 South 5th Street, Room 307 Minneapolis, Minnesota, 55415
612-673-2209
- Minneapolis City Council Ward 10
Lisa Bender
350 South 5th Street, Room 307 Minneapolis, Minnesota, 55415
612-673-2210
- Minneapolis City Council Ward 11
Jeremy Schroeder
350 South 5th Street, Room 307, Minneapolis, Minnesota, 55415
612-673-2211

- Minneapolis City Council Ward 12
Andrew Johnson
350 South 5th Street, Room 307, Minneapolis, Minnesota, 55415
612-673-2212
- Minneapolis City Council Ward 13
Linea Palmisano
350 South 5th Street, Room 307, Minneapolis, Minnesota, 55415
612-673-2213
- State of Minnesota Governor
Tim Walz
130 State Capitol, 75 Rev Dr. Martin Luther King Jr. Boulevard,
Saint Paul, Minnesota, 55155
651-201-3400
- United States Senator
Amy Klobuchar
1200 Washington Avenue South, Room 250, Minneapolis, Minnesota
612-727-5220
- United States Senator
Tina Smith
309 Hart Senate Office Building, Washington D.C.
202-224-5641
- United States Representative for Minnesota's 1st District
Jim Hagedorn
1530 Greenview Drive Southwest, Suite 207,
Rochester, Minnesota, 55902
507-323-6090

- United States Representative for Minnesota's 2nd District
Angie Craig
12940 Harriet Avenue South, Suite 238, Burnsville, Minnesota, 55337
651-846-2120
- United States Representative for Minnesota's 3rd District
Dean Phillips
13911 Ridgedale Drive, Suite 200, Minnetonka, Minnesota, 55305
952-656-5176
- United States Representative for Minnesota's 4th District
Betty McCollum
661 LaSalle Street, Suite 110, Saint Paul, Minnesota, 55114
651-224-9191
- United States Representative for Minnesota's 5th District
Ilhan Omar
404 3rd Avenue North, Suite 203, Minneapolis, Minnesota, 55401
612-333-1272
- United States Representative for Minnesota's 6th District
Tom Emmer
315 Cannon House Office Building Washington, D.C. 20515
202-225-2331
- United States Representative for Minnesota's 7th District
Collin Peterson
714 Lake Avenue Suite 101, Detroit Lakes, Minnesota, 56501
218-847-5056
- United States Representative for Minnesota's 8th District
Pete Stauber
Brainerd City Hall, 501 Laurel Street, Brainerd, Minnesota, 56401
218-355-0862

About the Author

Angelo Carton is a resident of Minneapolis and is directly affected by the massive increase in non-ionizing radiation. Angelo was born in Sioux Falls, South Dakota. His father is from Illinois and his mother is from Seoul, Korea. Angelo passionately cares for the betterment of humanity and is one of the founding members of Terran Society.

Future work by Angelo will be posted on the <http://TerranSociety.org> website.

Contact Angelo at Angelo@infodine.net

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- 5 ”Take all reasonable measures to reduce exposure to electromagnetic fields, especially to radio frequencies from mobile phones, and particularly the exposure to children and young people who seem to be most at risk from head tumours...Assembly strongly recommends that the ALARA (as low as reasonably achievable) principle is applied, covering both the so-called thermal effects and the athermic [non-thermal] or biological effects of electromagnetic emissions or radiation” and to ”improve risk-assessment standards and quality”.
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Summary and What You Can Do

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