

Members of the Energy, Utilities and Technology
Committee



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March 7, 2023

Subject: Support for LD 697 - Resolve, to Study the Effects of 5G Technology on Bird, Bee and Insect Populations and the Effects of Long-term Exposure on Children.

Dear Members of the Energy, Utilities and Technology Committee:

I am writing in support of LD 697 - Resolve, to Study the Effects of 5G Technology on Bird, Bee and Insect Populations and the Effects of Long-term Exposure on Children.

There is no regulation in Canada that provides protection to biota from the harmful effects of RF-EMR. I believe there is a similar lack of regulation in the United States.

Today, there are over 300,000 cell towers in the United States¹ and thousands more to come across the country. In addition, as new technologies are rolled out, there will be tens of thousands more so-called “small” cell antennas, installed every 20 to 100 metres or so, in urban areas. Today’s ambient levels of anthropogenic² RF-EMR are estimated to be millions of times higher than natural levels. Adding more RF-EMR-emitting cell antennas will lead to substantially more RF-EMR in the environment.

It was once thought that the energy of non-ionizing RF-EMR was too weak to cause harmful biological effects. There is now ample evidence to the contrary. Adverse biological effects from RF-EMR exposures have been demonstrated in biota, such as birds, bees and trees, at ambient RF-EMR levels.

We are particularly concerned about the upcoming plans for wireless 5G, and its impact on our health, esp. children and the environment. Our White Paper “Protect Birds, Bees and Trees: Include Electromagnetic Radiation in Canadian Environmental Protection Act Amendments”, prepared jointly with *Prevent Cancer Now*, outlines the scientific evidence of biological harms of RF-EMR. https://c4st.org/wp-content/uploads/docs/Studies/RF-EMR_in_CEPA_White_Paper_by_PCN_C4ST.pdf

Section 4 of the peer-review paper we published *Building science and radiofrequency radiation: What makes smart and healthy buildings*³, 4. Adverse health effects of RFR references studies that show “consistent with the increasing use of cell phones, there was a statistically significant increase in incidence of primary malignant brain

¹ [How Many Cell Towers Are There In The World? \(tribunewired.com\)](https://www.tribunewired.com)

² Originating from human activity.

³ [Building science and radiofrequency radiation: What makes smart and healthy buildings - ScienceDirect](https://www.sciencedirect.com)

and central nervous system tumors in children and adolescents in the US between 2000 and 2010⁴, and brain tumors subsequently became the most common malignancy in children and adolescents, with disease shifting to more aggressive gliomas⁵. Modeling indicates that children absorb substantially higher RFR doses from cell phones, in deeper brain structures, than do adults ([Fig. 1](#)). Research has also found proportionately higher doses to tissues in children compared with adults, from wireless laptops and utility meters^{6,7,8}. Not only can RFR act along with carcinogens to promote tumor development⁹, it also may synergize with toxic chemicals in other ways. For example, in a study of [Attention Deficit Hyperactivity Disorder](#) in children, ADHD was associated with mobile phone use for voice calls only in children who were also exposed to relatively high lead levels (lead is an established, potent neurotoxin)¹⁰. Further [synergistic effects](#) between RFR and various chemicals including nutrients (i.e., both beneficial and adverse) are described in a 2016 review by Kostoff and Lau¹¹.”

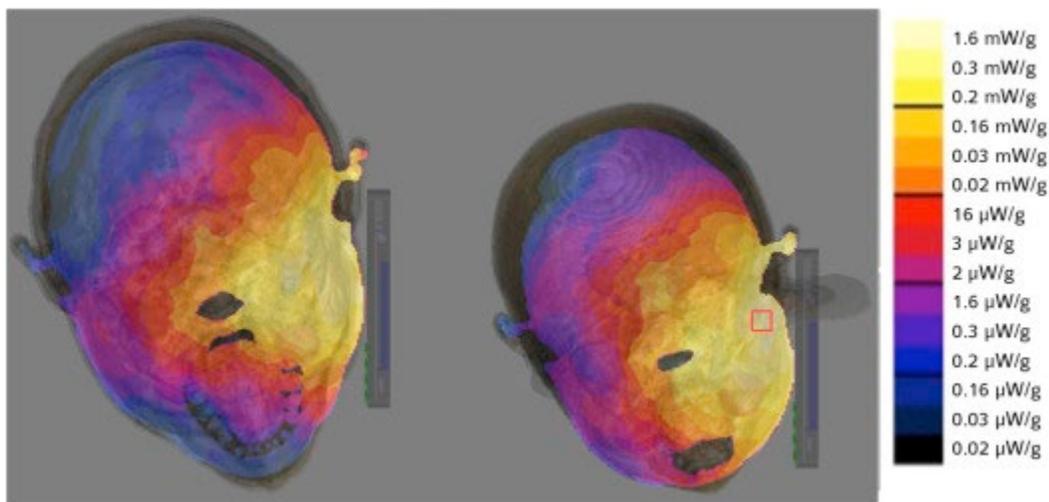


Fig. 1. Specific Absorption Rate (SAR) in adult and child (age 6 years) male heads with phone in talk position. The scale is 50 dB with 0 dB = 1.6 mW/kg. From work of Claudio Fernández, 2018¹² (used with permission of Environmental Health Trust).

⁴ [Trends in central nervous system tumor incidence relative to other common cancers in adults, adolescents, and children in the United States, 2000 to 2010 - Gittleman - 2015 - Cancer - Wiley Online Library](#)

⁵ [American Brain Tumor Association Adolescent and Young Adult Primary Brain and Central Nervous System Tumors Diagnosed in the United States in 2008-2012 | Neuro-Oncology | Oxford Academic \(oup.com\)](#)

⁶ [Numerical evaluation of human exposure to WiMax patch antenna in tablet or laptop - Siervo - 2018 - Bioelectromagnetics - Wiley Online Library](#)

⁷ [SAR simulations of EMF exposure due to tablet operation close to the user's body | IEEE Conference Publication | IEEE Xplore](#)

⁸ [Assessment of exposure to radio frequency electromagnetic fields from smart utility meters in GB; part II\) numerical assessment of induced SAR within the human body - Qureshi - 2018 - Bioelectromagnetics - Wiley Online Library](#)

⁹ [Tumor promotion by exposure to radiofrequency electromagnetic fields below exposure limits for humans - ScienceDirect](#)

¹⁰ [Mobile Phone Use, Blood Lead Levels, and Attention Deficit Hyperactivity Symptoms in Children: A Longitudinal Study | PLOS ONE](#)

¹¹ [Combined biological and health effects of electromagnetic fields and other agents in the published literature - ScienceDirect](#)

¹² [Absorption of wireless radiation in the child versus adult brain and eye from cell phone conversation or virtual reality - ScienceDirect](#)

We believe LD 697 - Resolve, to Study the Effects of 5G Technology on Bird, Bee and Insect Populations and the Effects of Long-term Exposure on Children is a tremendous opportunity now to start the actions necessary to provide protection from RF-EMR to birds, bees and trees and our children.

I would be pleased to meet with you via a video or telephone call to answer any questions and provide more details. Please let me know if this is a possibility.

Sincerely,



Frank Clegg
CEO, Canadians for Safe Technology (C4ST)
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Keep your family safe from wireless radiation – See how at www.C4ST.org

Cc: Maine State Representative Tracy Quint, RN

ABOUT C4ST:

Founded in 2012, Canadians for Safe Technology (C4ST), is a national, non-partisan, not-for-profit organization that is concerned with the health risks of wireless technology. C4ST is a volunteer coalition of parents, scientists and citizens whose mission is to educate Canadians and policy makers about the dangers of exposures to unsafe levels of radiofrequency/microwave radiation from commonly used wireless devices and network antennas. We work with all levels of government to create healthier communities for children and families.

ABOUT Frank Clegg:

Frank Clegg spent over 40 years in the technology industry; his most recent position was President of Microsoft Canada. Having met with experts from institutions such as Harvard, Yale, Columbia, the University of Toronto, an expert advisor for the World Health Organization and one of the lead scientific writers for Al Gore's team that won the Nobel Prize, Mr. Clegg concluded that the current implementation of wireless technology is not safe and helped co-found C4ST.