May 10, 2020

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Subject: Need for a balanced report versus the Globe and Mail's May 7th opinion "Canada's Health Committee chair has given conspiracy theorists a gift" and the May 6th article Liberal health-committee chair sponsors petition that says cell towers can pose danger to children

Ms. Hassan, Mr. Salewicz and Mr. Walmsley:

We believe the articles May 6th and May 7th do not meet the journalistic standards we expect and rely on from The Globe and Mail. We request that you review the material we present here on 5G and pre-5G radiation, and subsequently write a truly balanced story.

First, we want to make clear that we do not believe that 5G causes COVID 19 and that we condemn the burning of 5G towers and similar acts of violence.

To briefly provide you with our credentials, ABM is a physician-epidemiologist who worked on the monograph prepared by the International Agency for Research on Cancer (IARC) when it classified non-ionizing radiofrequency radiation (RF) as a 2B *possible* carcinogen. ABM has since written an update, published in a scientific peer-reviewed journal, providing the rationale for raising the classification to that of a Group 1, *known* carcinogen¹. Tobacco and asbestos are classified in Group 1.

FC is former president of Microsoft Canada and now CEO of the non-profit organization Canadians for Safe Technology².

MP McKinnon is not the first MP, or chair of the Commons standing committee on health, to present a document to the House of Commons, on behalf of constituents, expressing concern for the harmful effects from radiofrequency (RF) radiation.

On June 15th, 2015, MP Ben Lobb, Chair of the House of Commons Standing Committee on Health (HESA) tabled a report entitled *Radiofrequency Electromagnetic Radiation and the Health of Canadians*³ to the House of Commons.

¹ Cancer epidemiology update, following the 2011 IARC evaluation of radiofrequency electromagnetic fields (Monograph 102)https://www.sciencedirect.com/science/article/abs/pii/S0013935118303475?via%3Dihub

www.c4st.org

https://www.ourcommons.ca/DocumentViewer/en/41-2/HESA/report-13/

On June 16, 2016, the report was re-submitted by HESA Chair MP Ben Casey. Its 12 recommendations addressed several of the issues outlined below, and included a national awareness campaign about the harmful effects of wireless technologies and how to reduce risks. In December, 2010, HESA Chair, MP Joy Smith, tabled a report on behalf of the committee *An Examination of the Potential Health Impacts of Radiofrequency Electromagnetic Radiation*.

The information provided on May 6th and 7th lacked balance and downplayed many aspects of the serious concerns about this technology. We would like to direct you to the article written about 5G and the burning of towers by our colleague, Dr. Devra Davis, an epidemiologist with outstanding credentials. Dr. Davis, among other notable accomplishments, was a lead technical writer for Al Gore's team what won the Nobel Peace prize, helped to have lead removed from gasoline and smoking banned from planes:

Burning 5G Towers Across Europe is Harming Health, Wildlife And The Climate

https://www.ibtimes.com/burning-5g-towers-across-europe-harming-health-wildlife-climate-2961326

This article outlines other factors that may lead some to the misguided destruction of 5G towers.

Regarding the effects of radiation from wireless technology on children, we would like to direct you to two articles: Exposure limits: the underestimation of absorbed cell phone radiation, especially in children⁶ and Absorption of wireless radiation in the child versus adult brain and eye from cell phone conversation or virtual reality⁷; peerreviewed, published papers that show evidence that wireless radiation does, in fact, impact children more than adults.

The statements by Steven Salzberg, "There's no science behind them at all. The science is very clear on that," is false. Biologists and epidemiologists are the experts raising concerns about the harmful effects from RF radiation. The discussion about non-ionizing radiation not being harmful is not correct. Hundreds of peer-reviewed, scientific publications describe biological effects and harms with exposures far below Canada's limits (based on heating tissue), in humans. ^{8,9,10} These studies scientifically demonstrate cause or contribution to numerous health effects including cancers, ^{11,12} sperm damage, ¹³ reproductive harms, ¹⁴ learning and memory deficits, ¹⁵ and neurodegenerative, cellular and genetic damage. ^{16,17,18}

⁴ https://www.ourcommons.ca/DocumentViewer/en/42-1/HESA/report-2

⁵ http://publications.gc.ca/site/eng/385118/publication.html

⁶ https://doi.org/10.3109/15368378.2011.622827

⁷ https://doi.org/10.1016/j.envres.2018.05.013

⁸ Russell, C. L. (2018). 5 G wireless telecommunications expansion: Public health and environmental implications. *Environmental Research*, 165, 484–495. https://doi.org/10.1016/j.envres.2018.01.016

⁹ BioInitiative 2012 Report. (2012). A rationale for biologically based exposure standards for low-intensity electromagnetic radiation. Sections 5-11,14,15,20. C. Sage, and D.O. Carpenter (Eds) *BioInitiative Working Group*. https://bioinitiative.org/
¹⁰ Miller, A. B., Sears, M. E., Morgan, L. L., Davis, D. L., Hardell, L., Oremus, M., & Soskolne, C. L. (2019). Risks to Health and Well-Being From Radio-Frequency Radiation Emitted by Cell Phones and Other Wireless Devices. *Frontiers in Public Health*, 7. https://doi.org/10.3389/fpubh.2019.00223

¹¹ Miller, A. B., Morgan, L. L., Udasin, I., & Davis, D. L. (2018). Cancer epidemiology update, following the 2011 IARC evaluation of radiofrequency electromagnetic fields (Monograph 102). *Environmental Research*, 167, 673–683. https://doi.org/10.1016/j.envres.2018.06.043

¹² Hardell, L., & Carlberg, M. (2018). Comments on the US National Toxicology Program technical reports on toxicology and carcinogenesis study in rats exposed to whole-body radiofrequency radiation at 900 MHz and in mice exposed to whole-body radiofrequency radiation at 1,900 MHz. *International Journal of Oncology*. https://doi.org/10.3892/ijo.2018.4606

¹³ Houston, B. J., Nixon, B., King, B. V., De Iuliis, G. N., & Aitken, R. J. (2016). The effects of radiofrequency electromagnetic radiation on sperm function. *Reproduction (Cambridge, England)*, 152(6), R263–R276. https://doi.org/10.1530/REP-16-0126

Further supporting evidence came from three recent RF radiation rodent studies. The first two studies reported higher incidence of cancers in male rats exposed to RFR: 1) a \$30 million study by the U.S. National Toxicology Program (NTP) of the National Institutes of Environmental Health Sciences (NIEHS), studied radiation simulating RF radiation intensity from cell phones¹⁹; and 2) a study by the Italian Ramazzini Institute²⁰ that was conducted at lower intensities (below Health Canada limits) designed to mimic radiation from cell towers. A third large study demonstrated increased initiation and acceleration of tumor growth with RF radiation when the exposure was in conjunction with a cancer-causing chemical²¹, replicating findings of a 2010 study²².

To suggest those raising concerns about 5G health effects is a conspiracy is dismissive of the hundreds of international scientists and medical doctors who have signed appeals stating their concerns about the potential harmful effects of wireless devices, especially 5G. As of April 30, 2020, 253 EMF scientists from 44 nations have signed an appeal to the World Health Organization and United Nations member states²³ expressing their concerns about the effects of RF radiation on humans, including 5G. These scientists have published over 2,000 studies on non-ionizing radiation in the peer-reviewed literature. The 5G Appeal²⁴ was prepared by scientists and doctors who are urgently calling for the European Union to halt the roll out of 5G due to serious potential health effects from this new technology. As of April 29, 2020, 361 scientists and medical doctors have signed the appeal. The BioInitiative Group²⁵ has reviewed 1,800 studies that show harm to humans and our environment from RF radiation.

5G has not undergone any long-term health safety testing. That is not disputable. What we know about the pre 5G frequencies (2G, 3G and 4G) is of great concern. 5G will use these pre 5G frequencies as well as others not widely used previously for modern day devices such as cell phones. A well-balanced program of 5G fully exploring the health issues would be timely, and we urge you to consider another program in this topic.

We would like to thank MP McKinnon for sponsoring an official petition to the House of Commons on behalf of his constituents.

Yours sincerely,

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¹⁴ Magras, I. N., & Xenos, T. D. (1997). RF radiation-induced changes in the prenatal development of mice. *Bioelectromagnetics*, 18(6), 455–461. https://bit.ly/2wPRfTL

Aldad, T. S., Gan, G., Gao, X.-B., & Taylor, H. S. (2012). Fetal radiofrequency radiation exposure from 800-1900 mhz-rated cellular telephones affects neurodevelopment and behavior in mice. *Scientific Reports*, 2, 312. https://doi.org/10.1038/srep00312

Panagopoulos, D. J. (2019). Comparing DNA damage induced by mobile telephony and other types of man-made electromagnetic fields. *Mutation Research/Reviews in Mutation Research*, 781, 53–62. https://doi.org/10.1016/j.mrrev.2019.03.003

¹⁷ National Toxicology Program, National Institute of Environmental Health Sciences. (2018). Toxicology and carcinogenesis studies in Hsd: Sprague Dawley SD rats exposed to whole-body radio frequency radiation at a frequency (900 MHz) and modulations (GSM and CDMA) used by cell phones. *NTP Technical Report 595*, 384.

¹⁸ National Toxicology Program, National Institute of Environmental Sciences. (2018). Toxicology and carcinogenesis studies in B6C3F1/n mice exposed to whole-body radio frequency radiation at a frequency (1,900 mHz) and modulations (GSM and CDMA) used by cell phones. *NTP Technical Report 596*, 260.

¹⁹https://ntp.niehs.nih.gov/ntp/htdocs/lt_rpts/tr595_508.pdf?utm_source=direct%26utm_medium=prod%26utm_campa ign=ntpgolinks%26utm_term=tr595

²⁰ https://doi.org/10.1016/j.envres.2018.01.037

²¹ https://doi.org/10.1016/j.bbrc.2015.02.151

²² https://www.tandfonline.com/doi/full/10.3109/09553001003734501

International EMF Scientists Appeal. https://www.emfscientist.org/

²⁴ http://www.5gappeal.eu/about/

²⁵ https://bioinitiative.org/

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Dr. Miller, Professor Emeritus at the Dalla Lana School of Public Health of the University of Toronto, is a physician epidemiologist specializing in cancer etiology, prevention, and screening. He has been a longtime advisor to the WHO and was Senior Epidemiologist at the International Agency for Research on Cancer (IARC). He served as Director of the Epidemiology Unit of the National Cancer Institute of Canada and Chair of the Department of Preventive Medicine and Biostatistics at the University of Toronto. He has been awarded the Medal of Honour by the WHO's International Agency for Research on Cancer, and in 2019 was named a Member of the Order of Canada.

Frank Clegg has spent his 40 career in the technology industry, most recently as President of Microsoft Canada. He cofounded Canadians for Safe 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 RF radiation from commonly used wireless devices and cellular antennas and to provide information on how to use wireless devices more safely. C4ST works with all levels of government to create healthier communities for children and families.