Wireless radiation in the radiofrequency range and adverse health effects: Key peer-reviewed papers and videos November 28, 2019

PAPERS IN PEER-REVIEWED JOURNALS:

- A. CANCER EVIDENCE TO SUPPORT A GROUP 1 KNOWN HUMAN CARCINOGEN CLASSIFICATION (WORLD HEALTH ORGANIZATION, INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (WHO-IARC)
 - Miller, A. B.¹, 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. <u>https://doi.org/10.1016/j.envres.2018.06.043</u> <u>https://www.ncbi.nlm.nih.gov/pubmed/30196934</u>
 - 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. <u>https://doi.org/10.3892/ijo.2018.4606</u> <u>https://www.ncbi.nlm.nih.gov/pubmed/30365129</u>

B. CANADIAN BRAIN CANCER DATA – 2X RISK OF GLIOMAS WITH >558 HOURS OF CELL PHONE USE

 Momoli, F., Siemiatycki, J., McBride, M. L., Parent, M.-É., Richardson, L., Bedard, D., ... Krewski, D. (2017). Probabilistic Multiple-Bias Modeling Applied to the Canadian Data From the Interphone Study of Mobile Phone Use and Risk of Glioma, Meningioma, Acoustic Neuroma, and Parotid Gland Tumors. *American Journal of Epidemiology*, 186(7), 885–893. <u>https://doi.org/10.1093/aje/kwx157</u> https://www.ncbi.nlm.nih.gov/pubmed/28535174

C. BRAIN CANCER INCIDENCE IN ENGLAND

• Philips, Alisdair, Henshaw, Denis L., Lamburn, Graham, & O'Carroll, Michael. (2018). Brain tumours: rise in Glioblastoma Muliforme incidence in England 1995-2015 suggests an adverse environmental or lifestyle factor. *Journal of Environmental and Public Health*, 20. https://www.hindawi.com/journals/jeph/2018/7910754/

¹ Anthony B. Miller, MD, FRCP, FRCP(C), FFPH, FACE. Professor Emeritus, Dalla Lana School of Public Health, University of Toronto. A physician-epidemiologist, he was trained in internal medicine, and was a member of the scientific staff of the Tuberculosis and Chest Diseases Research Unit, UK Medical Research Council, 1962-71. He was Director of the Epidemiology Unit of the National Cancer Institute of Canada 1971-86 and Chair of the Department of Preventive Medicine and Biostatistics, University of Toronto, 1992-96. He served as a special expert in the Division of Cancer Prevention, US National Cancer Institute, 1997, Senior Epidemiologist, International Agency for Research on Cancer 1998-99, Head, Division of Epidemiology, German Cancer Research Centre, Heidelberg, 2000-03, Associate Director, Research, Dalla Lana School of Public Health, University of Toronto, 2008-10. He has been a consultant to the World Health Organization. He is Scientific Lead of the OncoSim microsimulation modelling initiative of the Canadian Partnership Against Cancer. His research encompasses cancer etiology, prevention and screening.

D. CANADIAN COLORECTAL CANCER INCIDENCE IN YOUNGER ADULTS IS "CONTINUING AND POSSIBLY ACCELERATING"

 Brenner, D. R., Heer, E., Sutherland, R. L., Ruan, Y., Tinmouth, J., Heitman, S. J., & Hilsden, R. J. (2019). National Trends in Colorectal Cancer Incidence Among Older and Younger Adults in Canada. JAMA Network Open, 2(7), e198090–e198090. https://doi.org/10.1001/jamanetworkopen.2019.8090

E. INCREASED ABSORPTION OF RADIOFREQUENCY ENERGY IN CHILDREN

- Fernández, C., de Salles, A. A., Sears, M. E., Morris, R. D., & Davis, D. L. (2018). Absorption of wireless radiation in the child versus adult brain and eye from cell phone conversation or virtual reality. *Environmental Research*, *167*, 694–699. <u>https://doi.org/10.1016/j.envres.2018.05.013</u> <u>https://www.sciencedirect.com/science/article/pii/S0013935118302561</u>
- F. PUBLIC HEALTH RISKS (BOTH MILLER AND RUSSELL ARE MEDICAL DOCTORS)
 - 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 https://doi.org/10.3389/fpubh.2019.00223 https://www.frontiersin.org/articles/10.3389/fpubh.2019.00223
 - Russell, C. L. (2018). 5 G wireless telecommunications expansion: Public health and environmental implications. Environmental Research, 165, 484–495. <u>https://doi.org/10.1016/j.envres.2018.01.016</u>
 Website: Physicians for Safe Technology - <u>https://mdsafetech.org/</u>

G. BEHAVOURAL PROBLEMS IN CHILDREN

 Birks, L., Guxens, M., Papadopoulou, E., Alexander, J., Ballester, F., Estarlich, M., ... Vrijheid, M. (2017). Maternal cell phone use during pregnancy and child behavioral problems in five birth cohorts. *Environment International*, *104*, 122–131. <u>https://doi.org/10.1016/j.envint.2017.03.024</u> <u>https://www.ncbi.nlm.nih.gov/pubmed/28392066</u>

H. ADVERSE EFFECTS ON SPERM QUALITY (ONE OF SEVERAL REVIEWS WITH SIMILAR CONCLUSIONS)

- 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. <u>https://doi.org/10.1530/REP-16-0126</u>
 <u>https://www.ncbi.nlm.nih.gov/pubmed/27601711</u>
- I. DNA DAMAGE OVER 30 STUDIES SHOWING DAMAGE AT UNDER SAFETY LEVEL EXPOSURES
 - 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. <u>https://doi.org/10.1016/j.mrrev.2019.03.003</u> <u>https://www.sciencedirect.com/science/article/pii/S1383574218300991</u>
- J. OXIDATIVE STRESS (CAN LEAD TO MANY HEALTH CONDITIONS INCLUDING CANCER, ALZHEIMER'S AND PARKINSON'S DISEASE)
 - Yakymenko, I., Tsybulin, O., Sidorik, E., Henshel, D., Kyrylenko, O., & Kyrylenko, S. (2016). Oxidative mechanisms of biological activity of low-intensity radiofrequency radiation. *Electromagnetic Biology and Medicine*, 35(2), 186–202. <u>https://doi.org/10.3109/15368378.2015.1043557</u> <u>https://www.ncbi.nlm.nih.gov/pubmed/26151230</u>

K. ELECTROHYPERSENSITIVITY (EHS)

- Belyaev, I., Dean, A., Eger, H., Hubmann, G., Jandrisovits, R., Kern, M., ... Thill, R. (2016).
 EUROPAEM EMF Guideline 2016 for the prevention, diagnosis and treatment of EMFrelated health problems and illnesses. *Reviews on Environmental Health*, 31(3). https://doi.org/10.1515/reveh-2016-0011
- Havas, M. (2019). Electrohypersensitivity (EHS) is an Environmentally-Induced Disability that Requires Immediate Attention. J. Sci. Discov., 3(1), 20. <u>https://doi.org/jsd18020</u>

L. CELL TOWER EXPOSURE STUDY (DNA DAMAGE, OXIDATIVE STRESS)

 Zothansiama, Zosangzuali, M., Lalramdinpuii, M., & Jagetia, G. C. (2017). Impact of radiofrequency radiation on DNA damage and antioxidants in peripheral blood lymphocytes of humans residing in the vicinity of mobile phone base stations. *Electromagnetic Biology and Medicine*, 1–11. <u>https://doi.org/10.1080/15368378.2017.1350584</u> <u>https://www.ncbi.nlm.nih.gov/pubmed/28777669</u>

M. NON-THERMAL EFFECTS AT BELOW CANADA'S SAFETY STANDARDS

- Belpomme, D., Hardell, L., Belyaev, I., Burgio, E., & Carpenter, D. O. (2018). Thermal and nonthermal health effects of low intensity non-ionizing radiation: An international perspective. *Environmental Pollution, 242, 643–658.* <u>https://doi.org/10.1016/j.envpol.2018.07.019</u> https://www.ncbi.nlm.nih.gov/pubmed/30025338
- Smith-Roe, S. L., Wyde, M. E., Stout, M. D., Winters, J. W., Hobbs, C. A., Shepard, K. G., ... Witt, K. L. (2019). Evaluation of the genotoxicity of cell phone radiofrequency radiation in male and female rats and mice following subchronic exposure. *Environmental and Molecular Mutagenesis*. <u>https://doi.org/10.1002/em.22343</u> https://www.ncbi.nlm.nih.gov/pubmed/31633839

VIDEOS:

1. Less than 5 minutes:. Dr. Anthony Miller: Radio Frequency Radiation, Cancer and Cell Towers Statement to School District. Statement that wireless radiation should be classified as a Class 1 *known* carcinogen. https://www.youtube.com/watch?v=LPs6PAG1H6c

2. About 24 minutes (2017): Dr. Anthony Miller: **Epidemiology of Cell Phones and Other Wireless Transmitting Devices – An Update (describes the evidence supporting an IARC Class 2A** *probable* human **carcinogen classification).** Expert Forum: Wireless Radiation and Human Health. Hebrew University Medical School, January 23-26, 2017

https://ehtrust.org/science/key-scientific-lectures/2017-expert-forum-wireless-radiation-human-health/

3. About 1 hour -Devra Davis PhD. MPH. (2015) **The truth about mobile phone and wireless radiation** Dean's Lecture at University of Melbourne, School of Engineering

https://ehtrust.org/science/key-scientific-lectures/dr-davis-dilvered-the-deans-lecture-at-melbourne-schoolof-engineering/