INTERNATIONAL EXPERTS' PERSPECTIVE ON THE HEALTH EFFECTS OF ELECTROMAGNETIC FIELDS AND ELECTROMAGNETIC RADIATION

June 11, 2011. Below are some of the key **resolutions/appeals** released by expert scientific groups around the world since 1998 regarding the **biological and health effects** of both low frequency electromagnetic fields (**EMF**) associated with electricity and radio frequency (**RF**) electromagnetic radiation (**EMR**) generated by wireless devices.

Anyone who reads these cannot be left with the illusion (or delusion) that this form of energy is without adverse biological and health consequences at levels well below existing guidelines. Children are particularly vulnerable. It is irresponsible of governments to maintain the status quo in light of thousands of studies that have been published and statements by these experts.

Here are the resolutions/appeals/reports. These are presented in more detail at <u>www.magdahavas.com</u>.

1. May 31, 2011: International Agency for Research on Cancer (IARC) and World Health Organization (WHO) reclassified radio frequency electromagnetic fields as a Class 2B carcinogen (possibly carcinogen to humans).

2. May 2011: The Parliamentary Assembly Council of Europe (PACE) released Resolution 1815 on the *Potential Dangers of Electromagnetic Fields and their effect on the Environment.*

3. April 2011: The Russian National Committee on Non-Ionizing Radiation Protection (RNCNIRP) released their Resolution entitled *"Electromagnetic fields from Mobile Phones: Health Effect on Children and Teenagers"*.

4. 2010: Seletun Statement, Norway: The International Electromagnetic Field Alliance (IEMFA) released their report entitled *Scientific Panel on Electromagnetic Field Health Risks: Consensus Points, Recommendations, and Rationales* following a scientific meeting at Seletun Norway November 2009.

5. 2009: EU Parliament Electromagnetic Report and Resolution entitled: *European Parliament Resolution on health concerns associated with electromagnetic fields,* was adopted February 17, 2009 with 29 recommendations.

6. 2009: Porto Alegre Resolution, Brazil. Scientists and doctors recognize electrohypersensitivity and are concerned that exposure to electromagnetic fields may increase the risk of cancer and chronic diseases; that exposure levels established by international agencies (IEEE, ICNIRP, ICES) are obsolete; and that wireless technology places at risk the health of children, teens, pregnant women and others who are vulnerable.

7. 2008: Venice Resolution, Italy. International Commission for Electromagnetic Safety (ICEMS) Scientists recognize biological effects at non-thermal levels, that standards are inadequate, that electro-sensitivity exists and that there is a need to research mechanisms.

8. 2007: Biolnitiative Report, USA. In response to statements that there are no scientific studies showing adverse biological effects of low level electromagnetic fields and radio frequency radiation, a group of researchers produced the Biolnitiative Report that documents 2000 studies showing biological effects of extremely low frequency (ELF) electromagnetic fields and radio frequency (RF) radiation and calling for biologically based exposure guidelines.

9. 2006: Benevento Resolution, Italy. The International Commission for Electromagnetic Safety (ICEMS) organized a conference entitled: *The Precautionary EMF Approach: Rationale, Legislation and Implementation*. Scientists at this conference signed the Benevento Resolution that consists of 7 major statements.

10. 2005: Helsinki Appeal, Finland. Physicians and researchers presented the Helsinki Appeal to the European Parliament.

11. 2005: Irish Doctors' Environmental Association (IDEA), **Ireland.**Members of IDEA wrote a position paper on electromagnetic radiation. Doctors recognize electrohypersensitivity (EHS) is increasing and request advice from government on how to treat EHS.

12. 2002. Catania Resolution, Italy. This resolution was signed by scientists at the international conference "State of the Research on Electromagnetic Fields-Scientific and Legal Issues".

13. 2002 : **Freiburg Appeal, Germany.** Physicians request tougher guidelines for radio frequency exposure. This document was endorsed by thousands of healthcare practitioners.

14. 2002: Salzburg Resolution, Austria. The *Salzburg Resolution on Mobile Telecommunication Base Stations* makes four recommendations including preliminary guidelines 0f 0.1 microW/cm2 for sum of all emissions from mobile phone stations.

15. 2000: Stewart Report, UK. The Independent Expert Group on Mobile Phones (IEGMP) produced a report, *Mobile Phones and Health,* that is commonly referred to as the Stewart Report, named after its Chairman Sir William Stewart.

16. 1998: Vienna EMF Resolution, Austria. *Workshop on Possible Biological and Health Effects of RF Electromagnetic Fields.*

Based on these resolutions and appeals from international groups of physicians and scientists immediate action is required to protect public health from continued increasing exposure to radio frequency radiation and electromagnetic fields.

I call on . . .

- **regulators** around the world to reexamine existing guidelines for both EMF and EMR and to reduce them to the lowest possible levels to protect the public and workers. Values above 4 milliGauss (low frequency magnetic fields); above 0.1 microW/cm2 (power density for radio frequency radiation) and above 40 GS units (dirty electricity) have been associated with adverse health effects in peer reviewed scientific publications!
- **government agencies** responsibility for the location of both base stations and power lines to keep distances at least 400 meters (base stations) and 100 meters (transmission lines) from residential properties as well as school and health care facilities.
- **utilities** (water, gas, electricity) to reconsider the use of wireless smart meters and provide wired options for those who are sensitive, for those who do not want to be exposed, and for those in densely populated settings.
- **manufacturers** who are providing technology that uses electricity and/or emits radio frequency radiation to re-engineer their products to provide the minimum radiation possible. This includes light bulbs, computers, wireless home devices like baby monitors and cordless phones, cell phones, smart meters, plasma TVs, among others.
- architects, builders, electricians, and plumbers to design and construct buildings that are based on principles of good electromagnetic hygiene. This includes using materials that absorb or shield building interiors from microwave radiation especially near external sources of this radiation and in multi-unit buildings; to provide wired alternatives to wireless devices; to properly wire and ground buildings to minimize low frequency electromagnetic fields and to eliminate ground current problems; and to install filters on electrical panels and/or throughout the building to ensure good power quality.
- local, state, federal health authorities to educate medical professions about the potential biological effects of both low frequency and radio frequency electromagnetic energy; about the growing number of people who have electrosensitivity (ES) or electrohypersensitivity (EHS) and to alert them on how they can help their patients in terms of minimizing their exposure and promoting their recovery.
- **hospitals** and **health care centres** to review their policy on wireless technology and to provided electromagnetically-clean areas within these centres for those who are sensitive to this radiation.
- school boards to reopen their policy on the preference of WiFi (wireless technology) over wired internet access and not allow towers/antennas within 400 meters of their school property.
- **parents** to practice good electromagnetic hygiene especially in the bedroom and especially for their children. This involves using wired rather than wireless devices in the home, keeping electric appliances away from the bed, turning off/unplugging devices when not in use.
- the **media** to provide information to the public about the health and safety of using this technology; to rely on "independent experts" who do not receive funding or other benefits based on the outcome of research studies; and to identify experts funded by the industry as "industry representatives". The integrity of many of these scientists leaves much to be desired.

Dr Magda Havas Trent University, Peterborough, ON, Canada