

Excerpts from a letter sent to Air Quality and Environmental Radiation Policy Section of the Dept. of the Environment, Wexford – sent 29th June 2015

In March 2014 I sent letters to you and your Department and also to Mr. Phil Hogan (the then Minister for the Environment) asking why the Irish Government has ignored the recommendations made by the Council of Europe, Parliamentary Assembly, Resolution 1815 (2011) with regard to *'The potential dangers of electromagnetic fields and their effect on the environment'*. (4) The resolution recommended: taking the 'precautionary principle' seriously; instigating an information and awareness campaign re health issues of EMF/RF and the appointment of 'wave-free' areas. Obviously, I cannot answer the question as to why none of these recommendations have been instigated and I received no real response to this question from your Department. ...

The ICNIRP standards [used by the Irish Government] date back to 1998 (and potentially earlier) i.e. prior to the accumulation of the electronic and wireless gadgets we have today. These standards are based on the **Specific Absorption Rate** i.e. the amount of electromagnetic energy absorbed by living tissue. (6) Bill Guy, the **electrical engineer**, who formulated SAR in 1982, was the leading proponent in the use of SAR as a basic standard. He was **not a medical doctor, or a biologist, or a physicist** and so, I am informed, the effects at the cellular, atomic or sub-atomic level were never taken into consideration. The practical method used by ICNIRP to estimate these standards, **is based on the use of plastic dolls heads filled with water**. The 'experts' who advise or are paid by your Department i.e. those who insist that there is no established mechanism by which radio waves could induce adverse effects on human tissue, other than by heating, all base their opinions on ICNIRP standards and therefore on the SAR. These standards, in fact, **only refer to acute thermal effects, short-term exposure and continuous rather than pulsed exposure [whereas the worst affects stem from non-thermal, and pulsed exposure]**. They are not only outdated but are also obsolete.

Your Department should be aware that three world-renowned scientists (Dr. Dimitris Panagopoulos, of the University of Athens, Assoc. Prof. Olle Johansson of the Karolinska Institute, Stockholm, and Dr. George Carlo, of the Institute for Healthful Adaptation in Washington, USA), joined forces to produce a report on SAR - ***Evaluation of Specific Absorption Rate as a Dosimetric Quantity for Electromagnetic Fields Bioeffects***¹. (2013) (7) This report critically analyses the SAR as a means of measuring EMF bioeffects and concludes that its use "is faulty, inadequate, misleading and is ultimately destructive to all living things." (7) Their independent scientific paper is in conflict with ICNIRP's standards and therefore with those used by your Department. Their paper further concludes that "a) The energy absorbed by living matter during exposure to environmentally accounted EMFs is normally **well below the thermal level**. b) All existing methods for SAR estimation, especially those based upon tissue conductivity and internal electric field, **have serious deficiencies**. c) **The only method to estimate SAR without large error is by measuring environmental EMF intensities**" through use of a monitor. (7) While each of these three scientists "have suffered academic persecution for their efforts [having been] subjected to everything from insults to death threats, their scientific evidence remains unassailable." (8) ...

In ICNIRP's Guidelines (1998) reference is made to the auditory perception of radiofrequency fields (fast becoming known as the 'hum'), and also to the "degenerative changes in light-sensitive cells of the retina" from pulsed microwave radiation. (6) Pulsed, as opposed to continuous, "microwave fields ... are generally more effective in producing a biological response, especially when there is a well-defined threshold that must be exceeded to elicit the effect ... The "microwave hearing" variety effect is a well known example of this." "The microwave hearing effects have been attributed to a thermoelastic interaction in the auditory cortex of the brain ... **Repeated or prolonged exposure to microwave auditory effects may be stressful and potentially harmful.**" (6) Microwave hearing is a **thermal** effect and a well-established phenomenon and the experience of it has made my life and the lives of some other EHS sufferers a living hell on a 24/7 basis. ... The Irish report insists that "symptoms suffered by EHS

individuals are not directly related to EMF exposure” yet I have highlighted two such symptoms already contained in the ICNIRP standards currently used by the Government. (5)

What other evidence can we find resulting from research regarding the health effects of EMF/RF, and that refute the notion of ‘no adverse health effects’? I feel sure that there is no need for me to reiterate the findings of *The BioInitiative 2012 Report* (an update of the 2007 report), prepared by 29 authors from ten countries, (10 with MDs, 21 PhDs, and three MsC, MA or MPHs). (9) Three of the authors were also former presidents of the Bioelectromagnetics Society. In its 2007 report 2,000 independent scientific studies documenting the negative health effects of EMF were cited. A further 1,800 studies are contained in its 2012 update. Overall, these studies report EMF/RF causes “abnormal gene transcription; genotoxicity and single- and double-strand DNA damage; stress proteins because of the fractal RF-antenna like nature of DNA; chromatin condensation and loss of DNA repair capacity in human stem cells; reduction in free-radical scavengers – particularly melatonin; neurotoxicity in humans and animals; carcinogenicity in humans; serious impacts on human and animal sperm morphology and function; effects on offspring behaviour; and effects on brain and cranial bone development in the offspring of animals that are exposed to cell phone radiation during pregnancy.” (9) This is only a snapshot of the evidence in the updated report. The BioInitiative report has overtaken ICNIRP as the leading international authority on the bio-effects of EMF/RF exposure on public health.

The International Doctors Appeal also known as the Freiburg Appeal (2002) has now been updated to *The International Doctors’ Appeal 2012*. (10) This was compiled by more than 1,000 physicians to “strongly warn” about the dangers of radio frequency radiation and its affects on human, animal and plant life. Dr. Andrew Goldsworthy’s report *The Biological Effects of Weak Electromagnetic Fields (2012)* (11) and his extremely important paper *The Non-Thermal Effects of Radio Frequencies on Trees*, (12) provide a broad view of effects on humans/animals and plants. Former British military microwave weapons expert Dr. Barrie Trower, now whistleblower, has produced numbers of reports/online interviews and has collaborated with other scientists such as Dr Martin Pall, Professor Emeritus of Biochemistry and Basic Medical Sciences, Washington State University, USA, to highlight the dangers of electromagnetic radiation. (13) They are all united in the urgency of their recommendation for immediate precaution. Health effects highlighted in these reports and appeals range from impaired learning, headaches, mental confusion, skin rashes, tinnitus, cancer, blood clumping, heart palpitations, chest pains and neurological disease. Other’s demonstrate the potential relationship between EMF/RF and Autism, ADHD, Alzheimers, Dementia, Leukaemia, Diabetes, Obesity, Sterility and infertility. All of these health issues reflect the results found in the BioInitiative report and have become endemic in recent times.

The ECOLOG Institute’s report (2000) *Mobile Telecommunications and Health, Review of the current scientific research in view of precautionary health protection*, reviewed over 220 peer-reviewed and published papers. (14) They found strong indications for the cancer-initiating and cancer-promoting effects of EMF/RF, particularly cancers of the central nervous system. Their findings, which had been commissioned by T-Mobile, was suppressed by the industry but on rediscovery were published in the Ecologist magazine April 2007. The ECOLOG Institute found that experiments “on cell cultures at power densities much lower than the present guidelines showed strong indications for genotoxic effects from these fields, such as single- and double-stranded DNA breaks and damage to chromosomes.” (14) The findings also revealed “influences on cell transformation, cell growth promotion and cell communication and carcinogenic potentials, as well as teratogenic effects (birth deformities) and loss of fertility in animal studies. Disruptions to other cellular processes, like the synthesis of proteins and the control of cell functions by enzymes, were also found. Experiments on humans as well as animals showed harmful effects on the central nervous system, which ranged from neuro-chemical effects to modifications of the brains potential and impairment of certain brain functions. Loss of memory and cognitive function, for example, were demonstrated in animal experiments. From experiments with human subjects who volunteered to be exposed to mobile phone radiation, clear evidence for influences on certain cognitive functions were shown. Other impacts on the brain included increased permeability of the blood-brain barrier to potentially harmful substances.” (14) There were also “indications for disruptions to the endocrine and immune systems.” (14) Stress hormones were increased and the hormone melatonin in the blood was

reduced. We can only conclude that there **is** an overwhelming amount of independent scientific evidence already documented on the adverse affects of EMF/RF. Certainly, evidence enough to warrant some expression of concern from those in decision-making positions and/or some form of precaution. So far, we have found no reassurance regarding the safety of EMF/RF. ...

Patent applications are one intriguing area where researching advances in technology can provide many answers. One patent application by Swisscom (a major telecommunications provider in Switzerland) in respect of a method/system for the reduction of electrosmog in Wireless Local Networks is particularly interesting. (15) Their application notifies the World Intellectual Property Organization that the “influence of electrosmog on the human body is a known problem ... when, [e.g.] human blood cells are irradiated with EMF, clear damage to hereditary material has been demonstrated and there have been indications of an increased cancer risk ... chromosomal instability ... instability of the genome ... [and] epigenetic alterations. (15) They further instruct that “it has been possible to show that mobile phone radiation can cause damage to genetic material, in particular in human white blood cells, whereby both the DNA itself is damaged and the number of chromosomes changed. This mutation can consequently lead to increased cancer risk. In particular, it could also be shown that this destruction is not dependent upon temperature increases i.e. is non-thermal.” (15) What’s happening here? The telecommunications industry appears to be ‘singing from the same hymn sheet’ as ECOLOG and the BioInitiative Working Group etc., regarding the health effects of EMF/RF and they acknowledge that these do not depend on thermal increase. These therefore are also in conflict with ICNIRPs standards. We continue to find ourselves devoid of any comfort and extremely puzzled.

Is there anywhere else we may go to seek reassurance? Insurance companies provide useful indicators for assessing potential danger. So what do we find here – Swiss Re Insurance and “Lloyds of London excludes any liability coverage for claims, *“Directly or indirectly arising out of, resulting from or contributed to by electromagnetic fields, electromagnetic radiation, electromagnetism, radio waves or noise.” (Exclusion 32)* (16) In response to a request made in February 2015 for clarification regarding Exclusion 32 –CFC Underwriting Ltd, London, the UK agent for Lloyds, stated: “The Electromagnetic Fields Exclusion (Exclusion 32) is a General Insurance Exclusion and is applied across the market as standard. The purpose of the exclusion is to debar cover for illnesses caused by continuous long-term non-ionising radiation exposure i.e. through mobile phone usage.” (16) At this point we may wonder whether we might find reassurance anywhere? ...

[The Irish Report is based on findings in the WHO EMF Project and SCENIHR. Research shows that these omit papers that do not fit into their agenda. Example follows]

In my letter sent to you on 18th May 2014, I informed you of the numerous scientific papers highlighting serious health effects from EMF that were deliberately ignored by the SCENIHR committee. When the draft report was presented in Athens in March 2014 most of the following papers were excluded from the process [information from Professor Henry Lai]:

Genetic Effects:

RFR: 114 papers (65% reported effects)

ELF/EMF: 59 papers (83% reported effects)

Neurological Effects:

RFR: 211 papers (68% reported effects)

ELF/EMF: 105 papers (90% reported effects)

Oxidative status:

RFR: 106 papers (88% reported effects)

ELF/EMF: 110 papers (88% reported effects)

The Hardell Group, submitted five studies (undertaken in 2013) demonstrating “a clear correlation between cell phone usage and two types of brain tumours, acoustic neuromas and the deadliest of all brain cancers, gliomas.” (19) These papers were amongst those systematically excluded by SCENIHR. ...

If these studies had been included it would be apparent that the final conclusions on brain tumour risk in SCENIHR are not based on scientific facts.” (20) This is scientific fraud that we are witnessing here.

The WHO-EMF Project, [funded mainly by industry] who continue to use the outdated ICNIRP standards, produced a ‘fact’ sheet on *Electromagnetic Fields and Public Health, Electromagnetic Hypersensitivity* in which they suggest, with regard to the symptoms, that there are “some indications that these symptoms may be due to pre-existing psychiatric conditions as well as stress reactions as a result of worrying about EMF health effects, rather than the EMF exposure itself”. (24) This notion does not explain the DNA fragmentation and other biological reactions discovered within EMF/RF research on ants or bees for example. (25)

According to research undertaken by Marie-Claire Cammaerts and Professor Johansson, ants can be used as bio-indicators and research has shown how exposure to cordless phones saw them present “locomotion ataxia, being nearly paralyzed, and could no longer forage as usual. When a mobile phone was placed under the ants’ nest, they left their nest taking their eggs, larvae and nymphs with them, relocating it far from the mobile site. When the mobile was removed, the ants returned to their initial nest.” (26) Reactions of ants to Wi-Fi were similar but more severe after 30 minutes exposure – some ants never recovered. (26) As the research paper states, “Ants as experimental animals do not lend themselves to psychological explanatory models, such as mass media-driven psychoses ... If they react to artificial electromagnetic fields, it is not because they have listened to radio broadcasts, watched the TV news or read columns in tabloids. No, then they do react to the actual adverse environmental exposure.” (26) Professor, Sainudeen Sahib at the Research Department of Zoology, S.N.College, Kerala, India, presents clear results in his research paper on bee colony collapse, concluding that the “present plunge” in bee population is “caused by man due to [the] unscientific proliferation of towers and mobile phones.” (27) It has also been shown that the navigational skills of birds and bees, which correlate with earth’s magnetic system, are disrupted, resulting in difficulties in orientation. (28) In May 2013 a 12 day biology experiment undertaken by 9th grade schoolgirls (in Denmark) on Wi-Fi radiation and cress seeds, demonstrated that the cress next to the two Wi-Fi routers did not grow, it turned brown and some of it had mutated or was dead, whereas the cress grown away from Wi-Fi routers and treated in an otherwise similar fashion, thrived. (29) ...

We might finally look to the military services to see if we can find any reassurance, given that this technology was developed for their use in its beginnings. I have already mentioned Dr. Barrie Trower, the British physicist and former Royal Navy microwave weapons expert who has now become a whistleblower, producing reports on *TETRA COMMUNICATION SYSTEMS* (35) and *Wi-Fi – A Thalidomide in the Making. Who Cares?* (36) Thankfully he is not alone. The contents of a letter entitled *Safety Code 6 plus Corruption = An Emerging Genocide*, addressed to the Parliamentary Health Committee, Canada, in April this year, was sent by Jerry Flynn, a retired Canadian Armed Forces captain who worked in the fields of Electronic Warfare and RF spectrum for 22 years. (37) In his letter Captain Flynn reports “the U.S. Government advised its western allies not to talk about non-thermal effects of microwave radiation. If it did not heat the body, they were not to talk about it.” (37) Furthermore, “Microwave energy in the range of 1 to 5 GHz, a militarily important range, penetrates all organ systems of the body and thus puts all organ systems at risk.” (37) Yet these are the very frequencies used in today’s devices, including baby monitors! (37) (38) Captain Flynn also advises, “Non-thermal EMR causes, promotes or is linked to the exponential rise in all of today’s major illnesses, including all cancers, ADHD, asthma, Multiple Sclerosis, leukemia, Alzheimer’s, dementia, Autism, ADD, Parkinson’s, ALS, etc. (37) (38) He warns that “there is no such thing as a ‘safe’ threshold of radiation; the only ‘safe’ level is zero!” (37) (38) An Emerging Genocide? It seems pretty clear at this stage that we are not going to find reassurance in any field.

In Ireland, which is now used as a biological laboratory or as Alex White, T.D., Minister for Communications, Energy and Natural Resources puts it “Ireland is a test-bed for cutting-edge energy research.” (1) The Irish Government has allowed the population of Ireland to be used as guinea pigs by telecommunication and electrical corporations. The deregulated or badly regulated availability of licences including trial licences from ComReg is wrong, especially given

the dearth of reassurance regarding the safety of EMF/RF. This situation is in breach of the Nuremberg Treaty, as mentioned by me in previous correspondence. (39) This Treaty was brought about after the Nazi 'Doctors' trial regarding experiments made on concentration camp detainees. The Nuremberg Treaty was signed by every nation in the world after the Second World War. It states that, a person being experimented upon must first:

- give their consent - free from force, fraud, deceit, duress or coercion;
- have sufficient knowledge of what is happening; and
- know the possible effects upon one's health.

and they must have the legal capacity to say no.

I have not been asked whether I would like to take part in this biological experiment! EHS sufferers in Ireland (now growing rapidly in numbers) are already living in a hell created by this toxic environment. ...

May I finally draw your attention to the notion of wilful ignorance or wilful blindness. Article 14 *"The doctrine of wilful blindness imputes knowledge to an accused whose suspicion is aroused to the point where he or she sees the need for further inquiries, but deliberately chooses not to make those inquiries."* " In the case of State v. McCallum: "[T]he rule is that if a party has his suspicion aroused but then deliberately omits to make further [i]nquiries, because he wishes to remain in ignorance, he is deemed to have knowledge. ...The rule that wilful blindness is equivalent to knowledge is essential ..." (Jamieson quoting Michner) (41)(43) According to the supreme court of Canada, 1995, *"A finding of wilful blindness involves an affirmative answer to the question: Did the accused shut his eyes because he knew or strongly suspected that looking would fix him with knowledge?"* (Jamieson quoting Michener (2010) (41)(43)

In this letter I have highlighted about 6,000 research papers from Scientists, Doctors and Psychologists citing negative health effects of EMF/RF and I've mentioned the numerous appeals and resolutions calling for lower EMF exposures. I do understand that it is a difficult condition to comprehend. One possible simple explanation for the diversity of symptoms of EHS, is the fact that our bodies are electrical organisms, as is every living thing on the planet. Every cell in our body has an electromagnetic field. These unprecedented levels of man-made EMF/RF are interfering with the workings of our natural electrical systems. EHS is not a new illness, it was first described in 1932. Then from 1958 safety standards for EMF/RF were introduced in some countries. EHS was "defined and accepted in 1964 and classified with a full proof diagnostic test in 2000 by international authorities." (44) Time is ticking by! The suffering of EHS citizens in Ireland can be attributed to decisions made by your Department. **Please remember that it is not the EHS sufferers who are the problem – it is the creation of a toxic environment in which their biological systems cannot survive.**