

(1) November 5, 2010. An important collection of scientific research papers was just published in the *European Journal of Oncology* as a special ICEMS Monograph entitled “***Non-thermal Effects and Mechanisms between Electromagnetic Fields and Living Matter.***”

This volume is a must read for all scientists involved in establishing policy for non-ionizing electromagnetic exposure.

The book has four sections as follows:

Section A: Biophysical Mechanisms (5 papers)

Section B: Cellular Mechanisms and Tissue Effects (7 papers)

Section C: *In Vivo* Effects (8 papers)

Section D: Epidemiology (4 papers)

Each paper in the collection may be accessed directly by clicking on the appropriate link at <http://www.magdahavas.com/2010/11/05/non-thermal-effects-and-mechanisms-of-interaction-between-electromagnetic-fields-and-living-matter>

(2) A listing of a great many studies demonstrating health effects from RF/microwave exposure can be found at <http://www.powerwatch.org.uk/science/studies.asp> . Most of these studies can be linked to directly online from this web page.

Additional such studies can be found, and linked to, at <http://emfsafetynetwork.org/?p=609> .

(3) **Havas, M. 2007. Analysis of Health and Environmental Effects of Proposed San Francisco Earthlink Wi-Fi Network. Sent to Board of Supervisors, City and County of San Francisco, May 31, 2007**

[http://www.magdahavas.org/wordpress/wp-content/uploads/2009/10/07\\_Havas\\_WiFi-SNAFU.pdf](http://www.magdahavas.org/wordpress/wp-content/uploads/2009/10/07_Havas_WiFi-SNAFU.pdf)

(4) [Petrov, I.R. \(Ed\). 1970. Influence of Microwave Radiation on the Organism of Man and Animals. Academy of Medical Sciences of the USSR, Translation of “Vliyaniye SVCh-Izlucheniya na Organizm Cheloveka i Zhivotnykh. II “Meditsina” Press, Leningrad, 1970, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, NASA TT F-708. For sale by the National Technical Information Service, Springfield, Virginia 22151 \\$3.00](#)

ABSTRACT: The book deals with problems of the effect of the microwave field on the organism, which are becoming more pressing with each passing year, since the power outputs of microwave generators are being increased and more and more persons are being exposed to this factor. The monograph consists of three parts.

The Introduction deals with the biological bases of the action of microwave electromagnetic radiation on the organism. Parts I and II set forth experimental material on the influence of high and low microwave intensities on the animal organism, characterizing the functional changes of the organism's basic systems and its metabolism. Also considered is the question of damage due to

microwaves combined with other factors and changes in the organism's immunological reactivity, the properties of bacteria, viruses, and simple animals. Part III of the book is devoted to the influence of microwaves on the human organism and sets forth data acquired as a result of observations on volunteers as to the influence of low microwave intensities on the healthy human organism; it sets forth the symptomatology, stages, reversibility of changes, and a classification for the pathological processes that arise under the influence of microwaves in persons working with microwave generators.

The book examines problems in the etiology and pathogenesis of sequelae to exposure to microwave radiation, characterizing the significance of microwaves and factors operating concurrently with them in the appearance of pathological changes, and indicating the basic pathogenic mechanisms of the pathological changes that arise under the influence of microwaves. It also presents material characterizing the application of microwaves to treat patients.

The last chapter is devoted to protection from and prevention of detrimental effects of microwaves on the human organism. It cites the maximum permissible microwave radiation levels, characterizes means for individual and collective protection from the harmful effects of microwaves, and presents experimental material on the use of drugs to prevent detrimental after effects of microwave exposure.

The Conclusion sets forth concisely the basic premises of the problem of microwave effects on the organism as reflected in the monograph and takes note of problems that require further study.

The book contains 24 illustrations, 36 tables, and a bibliography of 521 citations.

The Conclusion can be found at <http://www.magdahavas.com/wordpress/wp-content/uploads/2010/11/PotW-16.pdf>.

(5) Mr. Barrie Trower is a British physicist who was a microwave weapons expert and who worked for the Royal Navy and the British Secret Service. Mr. Trower came out of retirement because he was concerned that the microwave frequencies and intensities to which children are exposed in schools are similar to those used for microwave weapons.

(a) On August 24, 2010 Mr. Trower gave a talk at the University of Toronto about the health effects of WiFi and other forms of microwave radiation; here are excerpts from his talk, on video:

WiFi Is Not Safe For Kids [http://www.youtube.com/watch?v=SS\\_ivzKaEME](http://www.youtube.com/watch?v=SS_ivzKaEME)  
**WiFi In Schools Causes Cancer**

<http://www.youtube.com/watch?v=xyEUwIKzwZQ&feature=&p=3AC7F6E5AE63E8C1&index=0&playnext=1>

**Wi-Fi: Irreparable DNA Damage**

<http://www.youtube.com/watch?v=gq507USjpbQ>

(b) Address to Welsh Assembly (Parliament) by B. TROWER On Wireless Telecommunications, Oct. 3, 2006

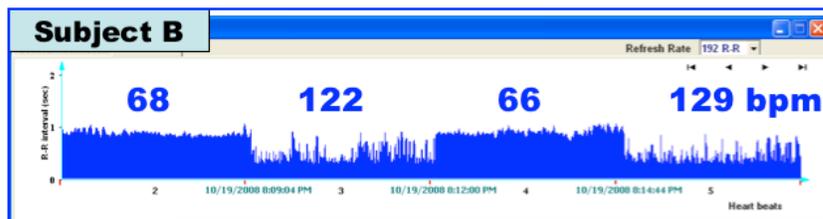
[http://www.emrrfsa.org/files/pages/video-room/barry\\_welsh\\_assembly.pdf](http://www.emrrfsa.org/files/pages/video-room/barry_welsh_assembly.pdf)

## (6) New Study: Radiation from Cordless Phone Base Station Affects the Heart

October 22, 2010. New study by Dr. Magda Havas and colleagues in the peer-reviewed *European Journal of Oncology* Library Vol. 5, 2010 shows that radiation from a digital cordless phone base station affects the heart in a double-blind provocation study.

Click [HERE](#) to view the study.

According to this research, some individuals are hypersensitive to microwave radiation and respond when they are exposed to levels well below federal guidelines (5 microW/cm<sup>2</sup> or 0.5% of guidelines in Canada & U.S.). During real time monitoring of the heart some individuals experienced an irregular heart rate or a rapid heart rate that occurred only during provocation and not during sham exposure (when the radiation was off). This is the first study showing such dramatic and repeatable results.



<http://www.magdahavas.com/wordpress/wp-content/uploads/2010/10/Screen-shot-2010-10-19-at-8.33.50-PM.png>  
<http://www.magdahavas.com/wordpress/wp-content/uploads/2010/10/Screen-shot-2010-10-19-at-8.33.50-PM.png>

The sympathetic nervous system up regulated and the parasympathetic nervous system down regulated during exposure, which is the typical “flight-or-fight” stress response. Feelings of anxiety as well as pain or pressure in the chest were associated with the rapid or irregular heart beat among some of the participants tested.

This test is *objective* and directly *measures* the heart’s response to radiation and is unlike subjective testing, where scientists ask individuals if they know whether a device is turned on or off and then determine their “sensitivity” based on *perception* of exposure, which is just that *perception* and NOT *sensitivity*.

It clearly documents that some individuals are hypersensitive to specific frequencies and supports complaints people have when they are exposed to radiation, including a racing or fluttering heart, pain or pressure in the chest, and feelings of anxiety that resemble the onset of a heart attack.

Recent reports that students in some Collingwood Ontario schools are experiencing these symptoms when they are exposed to WiFi in the classroom, leads one to ask whether those symptoms are due to the pulsed microwave radiation generated by the WiFi base stations.

The cordless phone base station beacon signal, used in the present study, operates at the same frequency as WiFi in schools, namely a pulsed digital

signal at 2.4 GHz. If this radiation can affect the adult heart it could be affecting the heart of children as well.

Heart complaints are becoming increasingly common in society and at least some of these complaints may be related to our increasing exposure to radiation from wireless devices as documented for the first time in this study.

View the videos below to see the methods that were used in the study. (Note the video title and narration specify that a DECT phone base station was used. In Europe – DECT technology utilizes 1.9 gigahertz and in North America 2.4 gigahertz is commonly used. We used a 2.4 gigahertz digital portable phone base station that was always sending it's beacon signal similar to DECT phones for this study. [Read reference material](#) (document of study).

(7) [The Challenge of Non-Ionizing Radiation: A Proposal for Legislation](#), written by Karen A. Massey (Project Attorney for Natural Resources Defense Council <http://www.magdahavas.com/wordpress/wp-content/uploads/2010/10/Massey-1979.pdf>).

(6) The following is relevant to the investigation of the CCST smart meters panel, because PG&E and the CPUC claim that the radiation exposure smart meters create falls within current FCC guidelines. One obvious question has to do with the adequacy of those guidelines, and whether there appears to be a body of evidence suggesting that use of wireless devices at levels below the guidelines nevertheless can have negative health consequences. This meta-analysis addresses this question with regard to studies of mobile phone use.

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### **Mobile Phone Use and Risk of Tumors: A Meta-Analysis**

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## **Abstract**

**Purpose** Case-control studies have reported inconsistent findings regarding the association between mobile phone use and tumor risk. We investigated these associations using a meta-analysis.

**Methods** We searched MEDLINE (PubMed), EMBASE, and the Cochrane Library in August 2008. Two evaluators independently reviewed and selected articles based on predetermined selection criteria.

**Results** Of 465 articles meeting our initial criteria, 23 case-control studies, which involved 37,916 participants (12,344 patient cases and 25,572 controls), were included in the final analyses. Compared with never or rarely having used a mobile phone, the odds ratio for overall use was 0.98 for malignant and benign tumors (95% CI, 0.89 to 1.07) in a random-effects meta-analysis of all 23 studies. However, a significant positive association (harmful effect) was observed in a random-effects meta-analysis of eight studies using blinding, whereas a significant negative association (protective effect) was observed in a fixed-effects meta-analysis of 15 studies not using blinding. Mobile phone use of 10 years or longer was associated with a risk of tumors in 13 studies reporting this association (odds ratio = 1.18; 95% CI, 1.04 to 1.34). Further, these findings were also observed in the subgroup analyses by methodologic quality of study. Blinding and methodologic quality of study were strongly associated with the research group.

**Conclusion** The current study found that there is possible evidence linking mobile phone use to an increased risk of tumors from a meta-analysis of low-biased case-control studies. Prospective cohort studies providing a higher level of evidence are needed.

## **Footnotes**

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The full article is available from Dr. Moskowitz at [jmm@berkeley.edu](mailto:jmm@berkeley.edu) .