



Wireless Industry's Patented System to Reduce Cancer Risk from Wireless Local Networks Never Adopted

March 11, 2013 - [PRLog](#) -- Swisscom AG, a major telecommunications provider in Switzerland, filed U.S. and international patent applications for an innovative system to reduce “electrosmog” from wireless local networks (i.e., Wi-Fi) in 2003.

This patent application acknowledged the cancer risk from exposure to wireless radiation eight years before the WHO’s International Agency for Research on Cancer declared that radiofrequency energy, including cell phone and Wi-Fi radiation, is a **“possible carcinogen”** to humans, like DDT and lead.

Furthermore, the application acknowledged that low-intensity, **non-thermal exposures to wireless radiation is genotoxic**. This is critical because the current U.S. regulatory standard for wireless radiation, established in 1996, does not protect us from non-thermal exposures.

According to this 2003 patent application, the **“influence of electrosmog on the human body is a known problem.”** (1) The application states:

“The health risk from mobile radio transmitters, handys (i.e., cell phones) and DECT (i.e., cordless) telephones has been an explosive subject among the general public at least since the enormous breakthrough in mobile radio technology in the 1990s. To meet the concerns of science from the legislative side, the permissible limit values have thus been lowered several times, and technology has been increasingly focused on this problem. The risk of damage to health through electrosmog has also become better understood as a result of more recent and improved studies. When, for example, human blood cells are irradiated with electromagnetic fields, clear damage to hereditary material has been demonstrated and there have been indications of an increased cancer risk (Mashevich et al., 2003) ... an aneuploidy (=numerical chromosome aberration) - was observed as a function of the SAR, demonstrating that this radiation has a genotoxic effect ... These findings indicate that the genotoxic effect of electromagnetic radiation is elicited via a non-thermal pathway. Moreover aneuploidy is to be considered as a known phenomenon in the increase of cancer risk.” (1)

The application further explains:

“Thus it has been possible to show that mobile radio 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. Based on the scientific studies in the field, and owing to increasing pressure from the public, especially in the industrialized countries, epidemiological studies have been systematized by the World Health Organization (WHO) in the last few years, such as e.g. the currently running WHO Interphone Project, in order to be able to assess more precisely the health risks from electrosmog and work out corresponding guidelines.” (1)

The proposed system works as follows. After a specified time without a connecting signal, the base station

in this system switches from the normal transmitting/receiving mode to a sleep mode in which no signals are transmitted. When a mobile unit, such as a tablet, laptop or smart phone, requires a network connection, it transmits an alert signal, and the base station switches back to its normal mode.

Ten years after this patent was filed, the system is unavailable. **How many other harm reduction technologies have been patented by the Wireless Industry but never used to reduce our risk of cancer and other diseases associated with exposure to wireless radiation?**

After its experience with tobacco and asbestos, it's no wonder that **the insurance industry will not provide product liability insurance to the Wireless Industry** (2). This patent application demonstrates that the Wireless Industry has known for many years the potential health risks from use of its technology. Yet the Industry continues to fight efforts to educate the public about these risks and blocks effective regulation of wireless radiation in the U.S. and in other countries.

Fifteen nations and the European Union have issued precautionary health warnings about cell phone radiation. However, efforts at the Federal, state, and local level in the U.S. have repeatedly been blocked by political and legal opposition from the CTIA, the Wireless Industry's lobbying arm.

Instead, the Industry promotes installation of cell phone towers, Wi-Fi, and wireless Smart Meters everywhere without regard to the population's overall exposure to microwave radiation. Many people are likely to suffer serious health consequences from this massive increase in electrosmog.

Based upon our nation's experience with other industries like tobacco and asbestos, the Wireless Industry will likely procrastinate taking action to reduce harm until it is faced with huge product liability settlements. Unfortunately, it may take awhile before such lawsuits are successful since the Industry has co-opted many scientists, and the scientific literature has mixed findings that enable industry experts to confuse juries.

Based upon the precautionary principle, policy makers should adopt effective regulation now to protect us from this emerging threat to public health. Strong public support is needed to overcome the Industry's political power.

For more information about wireless radiation health effects and health policy, see my Electromagnetic Radiation Safety web site at <http://saferemr.com> and my saferemr Facebook page which has links to the BioInitiative 2012 Report and the new European Environment Agency report. For regular updates on this and other health promotion issues, subscribe to my Twitter account @berkeleyprc.

Reference

(1) "Reduction of Electrosmog in Wireless Local Networks." WIPO: Patentscope. International Patent Application No. PCT/CH2003/000138. URL: <http://patentscope.wipo.int/search/en/detail.jsf?docId=WO...>

(2) Lloyd's Emerging Risks Team Report (version 2.0). "Electro-magnetic Fields from Mobile Phones: Recent Developments." Nov. 2010. URL: <http://www.lloyds.com/The-Market/Tools-and-Resources/Rese...>

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