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February 11, 2013

To: Members of the Board  
Los Angeles Unified School District, Board of Education  
333 South Beaudry Avenue, 24th Floor  
Los Angeles, CA 90017

Re: Health effects of radiation from Wi-Fi routers

As a researcher on biological effects of electromagnetic fields (EMF) for over twenty five years, as well as one of the contributors to the 2007 and 2012 Bioinitiative Reports, I am writing to you concerning the health risks associated with the radiation from WiFi and to urge you not to install WiFi in the schools in your district.

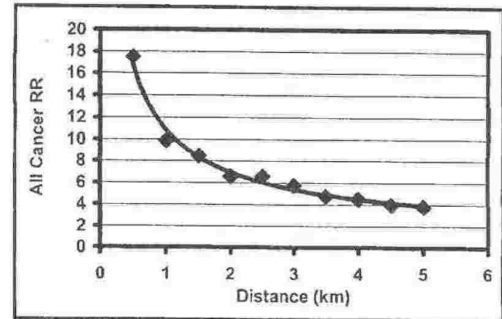
Scientific data on the biological effects of radiofrequency (RF) radiation indicate the need to pursue a precautionary policy to protect the exposed population. It is clear that RF radiation can cause single and double strand DNA breaks at exposure levels that are currently considered safe under the FCC guidelines. There are also epidemiological studies that show an increased risk of cancers associated with exposure to RF.

We know that an accumulation of mutations in DNA is associated with cancer. Hence, there is good reason to believe that the elevated rates of cancers among persons living near RF towers are linked to DNA damage caused by RF. This calls for a need to limit exposure, especially for children who are growing rapidly and undergoing rapid cell division with greater probability of DNA damage.

RF has been shown to cause other potentially harmful biological effects, such as leakage of the blood brain barrier that can lead to damage of neurons in the brain, increased micronuclei (DNA fragments) in human blood lymphocytes--all at RF exposures that are well below the limits in the current FCC guidelines.

In addition, studies of living cells show that the cells start to manufacture stress proteins upon exposure to RF. The stress response occurs with a number of potentially harmful environmental factors, such as elevated temperature, changes in pH, toxic metals, etc. This means that *when stress protein synthesis is stimulated by radiofrequencyEMF, the body is essentially telling us that RF exposure is harmful.*

Dr. Neil Cherry studied all childhood cancers around the Sutro Tower in San Francisco between the years 1937 and 1988. He showed that the rate of cancers increases the closer one is to the radiation. Similar findings have been obtained in Sydney, Australia and in Rome, Italy. Comparable results were found in a 2012 study in Belo Horizonte, Brazil, showing the effects of cellphone tower RF on brain cancer. In the Sutro tower study, the fields were measured, so that one could associate the cancer risk with the degree of EMF exposure. While the risk falls off with radial distance from the antennas, as expected, there is still a significant risk even at a distance of 3km where the field was  $1\mu\text{W}/\text{cm}^2$ . The 2007 Bioinitiative Report recommended  $0.1\mu\text{W}/\text{cm}^2$  as a desirable precautionary level based on this and related studies, including recent studies of brain cancer and cellphone exposure. Unless the system you are considering is below this level, it should not be installed.



As noted above, many potentially harmful effects, such as the stress response and DNA strand breaks, occur at nonthermal levels. Since these field strengths do not cause a temperature increase (the only parameter currently accepted as dangerous), they are unwisely considered safe. It is clear that the safety standards must be revised downward to take into account nonthermal as well as thermal biological responses. Given the problems in current standards, it is essential, for the protection of ourselves and our children, to take a precautionary approach and not install a WiFi system. That is the only means for protecting the health and welfare of the public and especially its most vulnerable members, children of school-age.

Sincerely yours,

Martin Blank, Ph.D.