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University of Albany, New York–September 12/ Serious Public Health Concerns Raised Over Exposure to Electromagnetic Fields (EMF) from Power Lines and Cell Phones

Public health experts warn that daily exposure to electromagnetic fields (EMFs) are likely to be harmful to your health – says the BioInitiative Working Group.

An international working group of scientists, researchers and public health policy professionals (The BioInitiative Working Group) has released its report on electromagnetic fields (EMF) and health. It raises serious questions about the safety of existing public limits that regulate how much EMF is allowable from power lines, cell phones, and many other sources of EMF exposure in daily life.

Public health expert and co-editor of the Report Dr. David Carpenter, Director, Institute for Health and the Environment at the University of Albany, New York says "this report stands as a wake-up call that long-term exposure to some kinds of EMF may cause serious health effects. Good public health planning is needed now to prevent cancers and neurological diseases linked to exposure to power lines and other sources of EMF. We need to educate people and our decision-makers that "business as usual" is unacceptable."

Co-editor of the report, Cindy Sage of Sage Associates says "public health and EMF policy experts have now given their opinion of the weight of evidence. The existing FCC and international limits for public and occupational exposure to electromagnetic fields and radiofrequency radiation are not protective of public health. Biologically-based exposure standards are needed to prevent disruption of normal body processes. Effects are reported for DNA damage (genotoxicity that is directly linked to integrity of the human genome), cellular communication, cellular metabolism and repair, cancer surveillance within the body; and for protection against cancer and neurological diseases. Also reported are neurological effects including changes in brainwave activity during cell phone calls, impairment of memory, attention and cognitive function; sleep disorders, cardiac effects; and changes in immune function (allergic and inflammatory responses).

Brain tumor specialist Dr. Lennart Hardell, MD, PhD and Professor at University Hospital in Orebro, Sweden is a member of the BioInitiative Working Group. His work on cell phones, cordless phones and brain tumors is widely recognized to be pivotal in the debate about the safety of wireless radiofrequency and microwave radiation. "The evidence for risks from prolonged cell phone and cordless phone use is quite strong when you look at people who have used these devices for 10 years or longer, and when they are used mainly on one side of the head.

Brain tumors normally take a long time to develop, on the order of 15 to 20 years. Use of a cell or cordless phone is linked to brain tumors and acoustic neuromas (tumor of the auditory nerve in the brain) and are showing up after only 10 years (a shorter time period than for most other known carcinogens). "This indicates we need research on more long-term users to understand the full risks" says Dr. Hardell.

Dr. Hardell's work has been confirmed in other studies on long-term users. A summary estimate of all studies on brain tumors shows overall a 20% increased risk of brain tumor (malignant glioma) with ten years of use. But the risk increases to 200% (a doubling of risk) for tumors on the same side of the brain as mainly used during cell phone calls. "Recent studies that do not report increased risk of brain tumors and acoustic neuromas have not looked at heavy users, use over ten years or longer, and do not look at the part of the brain which would reasonably have exposure to produce a tumor."

Contributing author Dr. Martin Blank, Columbia University professor and researcher in bioelectromagnetics says "cells in the body react to EMFs as potentially harmful, just like to other environmental toxins, including heavy metals and toxic chemicals. The DNA in living cells recognizes electromagnetic fields at very low levels of exposure; and produces a biochemical stress response. The scientific evidence tells us that our safety standards are inadequate, and that we must protect ourselves from exposure to EMF due to powerlines, cell phones and the like."

The BioInitiative Report recommends new, biologically-based exposure standards. It is available at www.bioinitiative.org

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