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## MAJOR U.S. GOVERNMENT STUDY FINDS CELL PHONE RADIATION CAUSES CANCER

Last Thursday, the U.S. National Toxicology Program released final peer-reviewed results of its \$25 million study on rats and cell phone radiation exposure. The findings: 46 out of 540, or 1 in 12 male rats developed malignant brain tumors (glioma) or malignant heart tumors (schwannoma) or pre-cancerous lesions. None of the rats in the control group developed tumors of the brain or heart or pre-cancerous lesions. Birth weights for exposed animals were also lower than for control animals.

Microwave News, which announced the impending release of results, cited an unnamed source within NTP that senior scientists wanted to get this information out to the public as soon as possible.

Chris Portier, former associate director of the NTP, called this study a "game changer" and "a wake-up call to the scientific establishment." These results concur with human studies such as the 5-country Interphone study which found significant 40-95% increases in glioma after only 10 years for cell phone usage as little as ½ hour per day. The latency for brain tumors is normally 15-30 years. The WHO IARC listed this radiation as a Class 2B carcinogen in 2011.

The NTP study was designed to mimic human exposure and look at effects on all parts of the body. Consumer Affairs says, "Rats are commonly used in cancer studies because their reactions to various carcinogens are similar to humans." The study intentionally kept exposure levels low, below levels that would increase body temperature. As a result, the cancers were not caused by thermal effects. Current FCC exposure limits are only based on thermal effects. Wireless devices are tested for compliance with these thermal limits but are not safety tested.

Female rats developed tumors or pre-cancerous lesions at a lower level which was not considered statistically significant. American Cancer Society stated: "It's important to note that these sorts of gender differences often appear in carcinogenic studies."

The frequency tested was 900 MHz for 10 minutes on and 10 minutes off for a cumulative time of 9 hours per day. This frequency is close to that used by other wireless devices including many wireless Smart Meters.

The American Cancer Society called the NTP report "good science," saying

NTP staff were clearly aware of the potential importance of this study and went the extra distance to ensure the best science is used. They used double the number of animals required for this type of study; they convened not one but three panels to look at abnormal tissues from treated animals to ensure that what was identified as a brain and heart tumor was indeed a brain and heart tumor;

they solicited review from multiple scientists from outside the NTP to critically review all aspects of the data analysis and study findings, to ensure the findings would stand up to the critical assessment expected once these unexpected findings were released.

On Friday, the Institute for Electrical and Electronics Engineers (IEEE) released a statement with comments from Ken Foster of the IEEE committee that reviews RF exposure limits: With the NTP study results, Foster expects more governments to put out cautionary guidelines and radiation labeling for cellphones. He says he wouldn't be surprised if California adds RF radiation to its Proposition 65 list of carcinogenic chemicals, and if the IARC ups its classification rating from 2B: possibly carcinogenic to humans to 2A: probably carcinogenic to humans. "And they wouldn't be out of line in doing that," he says. "This is going to change the rhetoric in the field. People can point to much more hard evidence that [cellphone RF exposure] really is a problem."

Joel Moskowitz, Director, Center for Family and Community Health at the School of Public Health, UC Berkeley:

The results of the study reinforce the need for more stringent regulation of radiofrequency radiation and better disclosure of the health risks associated with wireless technologies -- two demands made by the International EMF Scientist Appeal -- a petition signed by 220 scientists who have published research on the effects of electromagnetic radiation.

Ron Melnick, retired from the National Toxicology Program, told Microwave News:

The NTP tested the hypothesis that cell phone radiation could not cause health effects and that hypothesis has now been disproved...After extensive reviews, the consensus is that there was a carcinogenic effect...This is a major public health concern because the cells which became cancerous in the rats were the same types of cells as those that have been reported to develop into tumors in cell phone epidemiological studies.

IEEE calls NTP studies "the gold standard for animal cancer assays". The National Toxicology Program is part of the National Institutes of Health, and tests substances for toxicity and effects on human health.

NTP report: <u>http://bit.ly/NTPcell1</u>

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http://spectrum.ieee.org/the-human-os/biomedical/ethics/cellphone-radiation-causes-cancer-in-rats https://www.consumeraffairs.com/news/major-us-government-study-finds-cell-phone-cancer-link-052716.html https://acspressroom.wordpress.com/2016/05/27/ntpcellphones/ www.microwavenews.com http://www.saferemr.com/2016/05/national-toxicology-progam-finds-cell.html