



*Recent scientific publications relevant to mobile telephony*

**June 2007**

## **Details**

**Australia:** Occupational exposure to ionizing and non-ionizing radiation and risk of non-Hodgkin lymphoma, [Karipidis et al, International Archives of Occupational and Environmental Health](#), 80(8):663-670, August, 2007.

*'...Our results do not provide support for an association between NHL and occupational exposure to ionizing or ELF radiation. For UV radiation, our findings are consistent with a weak positive association. Further investigation focusing on UV and RF radiation and NHL is required.'*

**Finland:** Ornithine decarboxylase activity is affected in primary astrocytes but not in secondary cell lines exposed to 872 MHz RF radiation, [Höytö et al, International Journal of Radiation Biology](#), 83(6):367-374, 2007.

*'...ODC activity was affected by RF radiation in rat primary neural cells, but the secondary cells used in this study showed essentially no response to similar RF radiation. In contrast to some previous studies, no differences between the modulated and continuous wave signals were detected. Further studies with primary astrocytes are warranted to confirm the present findings and to explore the mechanisms of the effects.'*

**Finland:** Magnetic-Field-Induced ELF Currents in a Human Body by the Use of a GSM Phone, [Iivonen, IEEE Transactions on Electromagnetic Compatibility](#), 49(2):294-301, May 2007.

*'...Three different mobile phone positions are considered: normal operation on the side of the head, breast pocket, and the small of the back where the spinal cord is close to the phone. Obtained results are compared with the guidelines of the International Commission on Non-Ionizing Radiation Protection (ICNIRP).'*

**Germany:** Lymphoma Development in Mice Chronically Exposed to UMTS-Modulated Radiofrequency Electromagnetic Fields, [Sommer et al, Radiation Research](#), 168(1):72-80, July 2007.

*'...The number of ill animals, the mean survival time, and the severity code of the disease did not differ between the experimental groups. Therefore, the data show no negative effects from exposure and corroborate earlier findings in AKR/J mice exposed to GSM EMF...'*

**South Korea:** Radio-Frequency Radiation Exposure from AM Radio Transmitters and Childhood Leukemia and Brain Cancer, [Ha et al, American Journal of Epidemiology](#), Published online: 7 June 2007.

*'...The odds ratio for all types of leukemia was 2.15 (95% confidence interval (CI): 1.00, 4.67) among children who resided within 2 km of the nearest AM radio transmitter as compared with those resided more than 20 km from it. For total RFR exposure from all transmitters, odds ratios for lymphocytic leukemia were 1.39 (95% CI: 1.04, 1.86) and 1.59 (95% CI: 1.19, 2.11) for children in the second and third quartiles, respectively, versus the lowest quartile. Brain cancer and infantile cancer were not associated with AM RFR.'*

**UK:** Computational modelling of temperature rises in the eye in the near field of radiofrequency sources at 380, 900 and 1800 MHz, [Wainwright, Physics in Medicine and Biology](#), 52(12):3335-3350, 21 June 2007.

*'...The temperature rise in the lens is compared to the ICNIRP-recommended average specific energy absorption rate (SAR) and the SAR averaged over the eye alone. The temperature rise may reach 1.4 °C at the ICNIRP occupational exposure limit if an antenna is placed less than 24 mm from the eye and the exposure is sufficiently prolonged.'*

**UK:** SAR in the mother and foetus for RF plane wave irradiation, [Dimbylow et al. Physics in Medicine and Biology](#), 52(13):3791-3802, 7 July 2007.

*'...The electric field values required to produce the ICNIRP public exposure restriction of 2 W kg<sup>-1</sup> when averaged over 10 g of the foetus were calculated. Comparison suggests that the ICNIRP public reference level is a conservative predictor of local SAR in the foetus.'*

**UK:** Mobile phone 'talk-mode' signal delays EEG-determined sleep onset, [Hung et al. Neuroscience Letters](#), Available online: 24 May 2007.

*'...There was no condition effect for subjective sleepiness. Post-exposure, sleep latency after talk mode was markedly and significantly delayed beyond listen and sham modes. This condition effect over time was also quite evident in 1-4 Hz EEG frontal power, which is a frequency range particularly sensitive to sleep onset. It is possible that 2, 8, 217 Hz modulation may differentially affect sleep onset.'*

---

The MMF is an international association of wireless communications manufacturers established to support scientific research in relation to mobile telephony and health [www.mmfai.info](http://www.mmfai.info)

The GSM Association (GSMA) is the global trade association that exists to promote, protect and enhance the interests of GSM mobile operators throughout the world. [www.gsmworld.com](http://www.gsmworld.com)

*Disclaimer: The views expressed in the abstracts mentioned in this document are those of the authors and do not necessarily reflect the views of either the MMF or GSMA.*

*If you are aware of an article published this month that isn't mentioned here please email [articles@mmfai.info](mailto:articles@mmfai.info)*