

WHO Meeting on EMF Biological Effects and Standards Harmonization in Asia and Oceania

22-24 October, 2001, Shilla Hotel, Seoul, Korea

Hosted by:

WHO(World Health Organization),
MIC(Ministry of Information and Communication)

Sponsored by:

WHO, WHO EMF Project, ICNIRP, AOARD, RRL, ETRI, KEES, RAPA

Purpose:

The aim of the Meeting is to discuss the causes for the differences in standards among the countries, all over the world and in particular, Asian/Oceanic countries. The meeting follows agenda including key presentations, poster presentations and discussions.

1. Asian and Oceanic Regional EMF Scientific Meeting

(22-23 October, 2001)

Purpose:

To review the biological effects from the exposure of electromagnetic fields (EMF). These effects were discussed in relation to possible health consequences from EMF exposure resulting from devices such as mobile telephones, radars and video display terminals in Asian and Oceanic Region. International and regional scientists provided an overview of the biological and health effects from exposure to EMF reported in scientific literatures.

2. WHO Standards Harmonization Meeting (24 October, 2001)

WHO does not develop EMF standards; this is the responsibility of the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and national authorities. However, WHO's International EMF Project, with participation by all key international and national institutions, and standards setting organizations, provides an obvious umbrella for drafting an acceptable framework from which harmonized EMF standards can be developed. When the International EMF Project completes its EMF health risk assessments, they could be applied to this framework. This WHO EMF standards harmonization meeting has comprised an overview of options for a framework of for the international standard. This regional meeting gives an opportunity for scientists in the Asia and Ocean regions to provide their input to the standards harmonization process.

Main Topics

- Characteristics, dosimetry and measurement of EMF
- Mechanisms of interaction of EMF
- Review of biological effects and research requirements
- Results of human studies
- Health risks from EMF exposure
- Standards & harmonization for EMF

Poster Presentation

- o FDTD Calculation of SAR for the monopole antenna on the conduction box with the metallic folder
- o Decreased survival for childhood leukaemia in proximity to TV towers
- o The incident effects of EMF on sperm functional activity
- o Wideband antenna for measuring human radiometric signals
- o Cancer incidence in vicinity of Korea AM radio transmitters
- o A SCTL cell to calibrate electric probe in air
- o The biological effects induced by continual exposure to 60Hz electromagnetic fields in mice
- o Development of exposure systems for animal experiments
- o SAR variations by EMI condition of cellular phone case
- o Universal rules of synergistic interaction and their significance in EMF application
- o Probe design and fabrication for measuring near field
- o The effect of magnetized physiological solution on the perfused snail heart contractility
- o Differences of SAR's between various head models for handset exposure
- o One possibility to settle the differences between the "Dose Approach" and SAR values

- o Update on mobile telephony related research world wide: Using the WHO database
- o Developmental toxicology evaluation of ELF magnetic fields in SD rats
- o The effect of EMF on water specific electrical conductivity and wheat sprouting
- o Long-term effects of 60Hz electric vs. magnetic fields on IL-1 and other immune parameters in sheep
- o The novel model of mobile phone antenna for low SAR
- o Effect of 1.765GHz radiofrequency radiation on proliferation, stress and gene expression in vitro
- o Design on PIFA on IMT-2000 handset for SAR reduction
- o Relationship between function of human brain and handheld cellular telephone use in Korean using EEG test
- o The frequency-dependent effect of extralow frequency EMF on the growth of E. Coli

Speakers:

Dr. Mike Repacholi-WHO, Dr. Bernard Veyret-France, Dr. Leeka Kheifets-WHO, Dr. Shoogo Ueno-Japan, Dr. Jeong-Ki Pack-Korea, Dr. Masao Taki-Japan, Dr. Patrick A. Mason-USA, Dr. Martin Gledhill-New Zealand, Dr. Huai Chiang-China, Dr. Done-Sik Yoo-Korea, Dr. Sineric Ayrapetyan-Armenia, Dr. Yuri Grigoriev-Russia, Dr. Michinori Kabuto-Japan, Dr. Zhojin Cao-China, Dr. Agnette P. Peralta-Philippines, Dr. Chikamo Ohkubo-Japan, Dr. Michel Israel-Bulgaria, Dr. A. Wojtysiak-Germany, Dr. M. L. Swicord-USA, Dr. Nisakorn Manatrakul-Thailand, Ms. Femme-Michele Wagennar-Netherlands, Dr. Sheila A. Johnston-UK.

Meeting Development :

The meeting was held in Seoul, as it was planned, from October 22 to 24, 2001. There was the participation of 200 Korean and 42 people from the following countries:

Australia, Bulgaria, China, Finland, France, Germany, Japan, Korea, Malaysia, Mongolia, Nepal, Netherlands, New Zealand, Philippines, Republic of Armenia, Russia, Singapore, Switzerland, Thailand, United Kingdom, United States of America, Vietnam.