

Jörg Reibenweber

# Effects of mobile radio

**EXPERT DISCUSSION**

The topic 'Effects of mobile radio electromagnetic fields' recently pushes more and more to the forefront of media coverage. But not only media contribute to the intense debate on the issue, also members of Parliament, authorities and even the political parties take part in it by organising expert discussions. As an example for the numerous events taking place, Dr. Jörg Reibenweber reports from the expert discussion of the CDU/CSU group in the Bundestag.



On June 27, 2001, the expert discussion on the issue 'Effects of mobile radio electromagnetic fields' organised by the CDU/CSU group in the Bundestag took place in Berlin. The group was represented by: Mrs Aigner, MdB, as a rapporteur; Dr. Lipold, MdB, Deputy Chairman; Dr. Paziorek, MdB, Chairman of the Working Group Environment, Nature Preservation and Nuclear Safety, as well as alternating other members of Parliament of the CDU/CSU.

Representatives from science, authorities, network operators, manufacturers and action groups participated.

As an introduction to the expert discussion, Prof. Dr. Silny summarised the present knowledge on biological effects of electromagnetic fields. In particular, he reported on research projects of his Institute on fields effects on muscles, nerves and sensory receptors, on impact thresholds in humans, and on electromagnetic interaction with medical/technical implants. In summary, he emphasized that so far no study could give significant proof of any dangers caused by mobile radio base stations or mobile phones.

Dr. Reibenweber reported on electropathology, a new area of medicine dealing

# electromagnetic fields

with the research into biomedical aspects of electromagnetic field effects in the low- and high-frequency range. At the University Witten/Herdecke he often witnesses the suffering of people who are personally convinced to be electrosensitive. However, as he said, those people are not seen as 'patients', but only as 'people concerned', since a 'electrosensitivity syndrome' is not at all proved. There is neither confirmation of the melatonin hypothesis in humans being discussed in association with cancer initiation. However, the medical discipline of psychoneuroimmunology was able to show that fear itself can lead to disease symptoms. Therefore, further elucidation of hypothetical health dangers in connection with mobile radio technology by scientific research - especially in humans themselves - is necessary to ban fear where it is scientifically inappropriate.

The next lecturer, Dr. Schüller as a representative of mobile radio network operators pointed to the fact that re-equipping mobile radio technology currently in use because of stricter limit values would estimate cost approximately 3.4 billion Euro. Dr. Dullin demanded warning labels for mobile phones and information duties of mobile radio providers towards the public prior to the installation of new mobile radio base stations as well as accompanying epidemiologic research on the issue of base station sites.

Dr. Lauer mentioned that already in 2000 there were about 50 million satisfied mobile phone users in Germany. He claimed that mobile radio providers aim for transparent information; new base station sites

as far as possible should be selected with the consent of the population. However, in his view there is a certain danger to damage mobile radio technology by too much discussion.

In behalf of the manufacturers, Dr. Kullnick underlined that the zero proof, i.e. a proof of complete risklessness of mobile radio technology electromagnetic fields already out of scientific reasons never will be found.

Dr. Eisenmann spoke about the necessity for the public to weigh up the use of mobile phones f.e. for life-saving and purely hypothetical dangers.

Dr. Habel pointed to the fact that Germany has a lead of 18 months in mobile radio technology over other countries. He demanded a base station site database and emphasized the significance of human health as a future locational factor for cities. He recommended to let mayors of cities and communities participate in site search for new mobile radio base stations. An accompanying long-term research paid from UMTS proceeds would be necessary and possible.

Prof. Dr. Wörle spoke about the possibility of voluntary agreements between politics and mobile radio providers as successfully practised f.e. in Bavaria in the form of the mobile radio pact. The concerns of the public must be taken serious; there must be communication with the communities. Possibilities for a regulation by politics are found in Federal Law rather than State Law.

For action groups, Mr. Zwerenz emphasized that in Germany currently there are about 700 action groups consisting of peo-

ple concerned by the phenomenon of electrosensitivity. He mentioned the blood brain barrier as a hypothetical target point of electromagnetic fields in the human body pointing in this context to the EEG studies of Dr. von Klitzing. In his view, the existence of so-called 'athermal' effects of mobile radio fields is proved. Also important are the two following aspects: In alternative medicine electrosensitivity is seen as a disease; the energy irradiated by a mobile phone into the head is about 10,000 times stronger than that of a more distant mobile radio base station and correspondingly a bigger problem.

## Conclusion

Concerning a health damaging potential of electromagnetic fields there are huge controversies in the population. There was agreement on the objective that the still unresolved risks of mobile radio technology should as far as possible be confronted with the consent of society. The majority of the present experts pleaded for a more objective dealing with the issue based upon scientific knowledge. This defines further research requirements concerning biomedical effects of high-frequency electromagnetic fields of mobile radio, particularly the new UMTS and bluetooth technologies. If possible, a 'round table' including concerned people, politicians, scientists, consumer lobbyists as well as mobile radio providers and mobile phone manufacturers should be initiated to preclude conflicts.

*Dr. med. Reißweber, Centre of Electropathology, University Witten/Herdecke*