Forschungsstiftung
Mobilkommunikation
Research Foundation
Mobile Communication

BLOCKING PERIOD: WEDNESDAY, SEPTEMBER 22, 2004, 07.00 A.M.

Dutch Study on effects of UMTS signals will be replicated in Switzerland

Study on effects of UMTS signals on human well-being and cognitive functions

Zurich, September 22, 2004. **The Dutch TNO-study on effects of UMTS-fields on human well-being will be replicated in Switzerland. Since their publication, the TNO-findings were controversially discussed in the scientific community. An independent replication supported by Dutch ministries and co-ordinated by the Swiss Research Foundation on Mobile Communication should clarify the robustness of the original results. The Swiss study aims at reproducing the most important of the TNO-findings.**

Towards the end of 2003, TNO published results of a study investigating into the effects of electromagnetic fields of the type «mobile phone basestations» on (subjective feeling of) well-being and cognition. In this study, two groups of volunteers (hypersensitive and non-hypersensitive persons) were exposed in a series of three sessions in a double-blinded approach to GSM, UMTS and - for control reasons - to no fields at all. «Double-blinded» means that neither the exposed person nor the researcher present during the experiment knows about the real exposure, i.e. whether GSM, UMTS or no field was «on». The study found no effects of GSM on well-being. Exposure to UMTS signals, however, revealed a statistically significant reduction in well-being. With regard to cognition, no consistent pattern was found. Despite of the fact that the scientific quality of the TNO-study was high, some experts commented on weak points with regard to study-methodology and data analysis. In a replication or follow-up study, strongly recommended by researchers and demanded by regulators and other actors, such weak points can be eliminated.

Medienmitteilung

Replication and Extension

The replication study was designed by Dr. Peter Achermann (Institute of Pharmacology and Toxicology, University of Zürich), Prof. Niels Kuster (IT'IS and ETH Zürich) and Dr. Martin Röösli (Institute of Social and Preventive Medicine, University of Bern) in exchange with TNO. The Swiss project focuses on replicating the effects of UMTS signals on well-being and cognitive functions. With improved dosimetry and with an extended study-design, two exposure levels (1V/m and 10V/m) will be used. Due to this, the replication study can detect dose-effect relationships, if the effects found in the TNO-study can be reproduced and if dose-dependency exists. As in the original study, the Swiss study will expose both hypersensitive and non-hypersensitive persons. The overall sample size will amount to 84 persons; almost double the size of the sample that entered data analysis in the original study. Hence, statistical significance of the results will be higher in the replication study. The project will last one year. 60% are funded by public authorities, 40% by Swiss providers. Results will be available after publication in a peer-reviewed scientific journal, probably end of 2005.

More information

Hans Mijnheer
Ministerie van Economische Zaken
Directoraat-Generaal Telecommunicatie en Post
Tel: +31 70 379 81 13
Email: J.H.Mijnheer@minez.nl
www.ez.nl

Dr. Gregor Dürrenberger
Swiss Research Foundation on Mobile Communication
c/o ETH Zürich
Tel: +41 1 632 28 15
Email: gregor@mobile-research.ethz.ch
www.mobile-research.ethz.ch

A detailed description of the project is to be found at: http://www.mobile-research.ethz.ch .

Researchers and Sponsors

The project leader is PD Dr. Peter Achermann, University of Zürich, Institute of Pharmacology and Toxicology (http://www.unizh.ch/phar/sleep/handy/). Co-researchers are Prof. Niels Kuster, IT'IS and ETH Zürich (http://www.itis.ethz.ch/), and Dr. Martin Röösli, University of Bern, Institute of Social and Preventive Medicine (http://www.ispm.unibe.ch/). The overall study costs amount to 723'000 Swiss Francs (485'000€). 60% are funded by 3 Swiss public authorities (Swiss Federal Office of Public Health SFOPH, Federal Office of Communication OFCOM, Swiss Agency for the Environment, Forests and Landscape SAEFL) and 4 Dutch Ministries (Ministry of Economic Affairs EZ, Ministry of Health, Welfare, and Sport VWS, Ministry of housing, Spatial Planning and the environment VROM, Ministry of Social Affairs and Employment SZW); 40% are funded by the three Swiss providers Swisscom Mobile, Orange and sunrise. The research is commissioned by the Swiss Research Foundation on Mobile Communication.