



Workshop Agenda

Scientific workshop hosted by the FGF in cooperation with COST 281 and the State Ministry of Environment and Transport, Baden-Württemberg:

Subtle Thermal Effects of RF-fields *in vitro* and *in vivo*

November 21 to 23, 2005
Tagungshotel Stuttgart, Stuttgart, Germany

Monday, Nov 21

09:00 – 09:05 Welcome by the Organizers
09:05 – 09:15 Roland Glaser – Thermoreception – Thermoregulation – “Non-thermal”
Effects, Introduction to the Workshop

Thermoregulation: molecular and physiological aspects

Chair: Alexander Lerchl

Rapporteur: Maren Fedrowitz

09:15 – 09:45 Peter Wust – Thermoregulatory Mechanisms in Humans
09:45 – 10:00 Discussion

10:00 – 10:30 Helmut Schmitz - Thermal and photomechanic infrared receptors
in fire-seeking beetles
10:30 – 10:45 Discussion

10:45 – 11:15 *Coffee and Tea*

11:15 – 11:45 Wolfgang Hanke – Temperature Dependence of Ion Channels,
Membranes, Cells and CNS Tissue
11:45 – 12:00 Discussion

12:00 – 12:30	Philipp Christen - Thermosensor control in the DnaK chaperone system
12:30 – 12:45	Discussion
12:45 – 14:00	<i>Lunch</i>
14:00 – 15:00	Discussion on Thermoregulation

Subtle thermal effects of *in vitro* experiments with RF-fields

Chair: Roland Glaser

Rapporteur: Margarita Simeonova

15:00 – 15:30	Jürg Fröhlich – REQUIREMENTS, DOSIMETRY AND PERFORMANCE COMPARISON OF DIFFERENT SETUPS FOR THE EXPOSURE OF CELLS AT 900 AND 1800 MHz USED IN CURRENT STUDIES
15:30 – 15:45	Discussion
15:45 – 16:15	Jan Gimsa - Dielectric Properties of Cell Membrane Molecules and their Influence on the Subcellular RF-Field-Distribution
16:15 – 16:30	Discussion
16:30 – 17:00	<i>Coffee and Tea</i>
17:00 – 17:30	Kenneth R. Foster - More Heat Than Light: The Difficulty of Separating Subtle Effects of Microwaves from Subtle Thermal Artifacts
17:30 – 17:45	Discussion
18:00	<i>Social event and Dinner</i>

Tuesday, Nov 22

Chair: Ken Foster

Rapporteur: Margarita Simeonova

09:00 – 09:30	Jacques Vanderstraeten - Microwave SAR at the DNA-scale
09:30 – 09:45	Discussion
09:45 – 10:15	Alciviadis–Constantinos Cefalas - “Subtle thermal” effects of interaction of non-ionized radiation with DNA crystals: A quantum mechanical approach
10:15 – 10:30	Discussion
10:30 – 11:00	<i>Coffee and Tea</i>
11:00 – 11:30	Anan Coptý - Microwave Radiation and Temperature Effects on the Green Fluorescent Protein
11:30 – 11:45	Discussion

11:45 – 12:45 Discussion on subtle thermal effects *in vitro*

12:45 – 14:00 *Lunch*

Possibility of generation of subtle thermal effects in RF-experiments with animals and human volunteers

Chair: Peter Wust

Rapporteur: Jochen Buschmann

14:00 – 14:30 Andreas Bitz – Numerical and experimental determination of SAR and temperature distribution for 'in vivo' bio-experiments involving radio frequency exposure

14:30 – 14:45 Discussion

14:45 – 15:15 Gunnhild Oftedal - Increase in skin temperature during mobile phone calls. The effect of RF exposure and other factors explored in experimental and theoretical studies

15:15 – 15:30 Discussion

15:30 – 16:00 *Coffee and Tea*

16:00 – 16:30 Gernot Schmid – SAR and temperature elevations in the human head during RF exposure

16:30 – 16:45 Discussion

16:45 – 17:15 Alexander Lerchl– Effects of non-thermal EMF (GSM, UMTS) on hamsters and mice: implications for the definition of "non-thermal"

17:15 – 17:30 Discussion

18:30 *Social event and Dinner*

Wednesday, Nov 23

Chair: Jürgen Kiefer

Rapporteur: Jochen Buschmann

09:00 – 09:10 Jochen Buschmann – Introduction to discussion: Practical Suggestions on the Use of Thermal Thresholds in Animal Studies on Electromagnetic Fields (EMF)

09:10 – 11:00 Discussion on subtle thermal effects *in vivo*

11:00 – 11:30 *Coffee and Tea*

11:30 – 13:00 **General Discussion** (Recommendations for further research?)
Chair: Jürgen Kiefer
Rapporteurs: all previous

13:00 *Lunch*

Venue (Accommodation will be organized via FGF):

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<http://www.training.telekom.de/telekom-training/standorte/stuttgart.jsp> (in German)