

Workshop

“Open Questions in the Research on Biological & Health Effects of Low-Intensity RF-EMF”



Organized by



FGF E.V.



**STATE MINISTRY OF ENVIRONMENT,
BADEN-WÜRTTEMBERG**

Program

Announcement for the International Scientific Workshop

„Open Questions in the Research on Biological and Health Effects of Low-Intensity RF-EMF.“

Organized by the Forschungsgemeinschaft Funk e.V. (FGF, Research Association for Radio Applications), and the Umweltministerium (Ministry of Environment) Baden/Württemberg.

Stuttgart, Tagungshotel der Telekom, **November 17th, 10:00h – November 19th, 16:00h**, 2008

A lot of research has been done in the last years on the possible and real effects of radiofrequency electromagnetic fields (RF-EMF) on biological matter – in most cases due to considerations of potential health impacts of cell phones and other mobile communication emitters. Many national and international projects have been finished in the meantime. The results are rather an “all-clear”, however, some controversial results remain and also some open questions.

This workshop aims to pick up several of these open questions, to discuss their relevance and the

progress in research, and to try to give a guideline how to go on in this field of research. For this reason only two to four invited presentations per topic will be given, most time is reserved for discussion.

First day:

1. Are children (and other “specific groups”) at higher risk?

Since our last workshop on this topic in 2006 some new results came up: What has been achieved, and what is still to be done?

2. Can animal studies of one or more generations be considered as “long-term” studies regarding the situation with humans? Is thermal regulation a mechanism that has to be taken into account at exposures below the guidelines?

Second day:

3. Are there indications of RF-effects in *in vitro* experiments?

4. Microdosimetry: Are microthermal effects possible and effective in heterogeneous subcellular media, e.g. in double layers?

Third day:

5. Final Discussion: “What is necessary to solve the open questions, and what in fact needs to be solved?”



SCHEDULE

(may be subject to on-site changes)

Sunday, November 16th — 19:00 Welcome Buffet in the Tagungshotel

Monday, November 17th

09:00 Registration
Upload of Presentations

10:00 Welcome & Introduction
G. Friedrich and M. Kneisel

CHILDREN & OTHER SPECIFIC GROUPS

*Chair: Bernard Veyret,
Rapporteur: Kenneth R. Foster*

10:15 RF absorption and temperature distribution in heads of children
Andreas Christ

10:35 Discussion

10:45 Session Discussion Dosimetry

11:15 Studies investigating effects of radio frequency electromagnetic fields on children
Martin Rösli

11:35 Discussion

11:45 Lunch

13:00 Cognitive function and mobile phone use in schoolchildren
Geza Benke

13:20 Discussion

13:30 Sleep and RF-EMF - are elderly subjects at an increased risk for sleep disturbances?
Heidi Danker-Hopfe, Cornelia Sauter and Hans Dorn

13:50 Discussion

14:00 Measures for the exposure of newborn animals to WiFi signals
Carmela Marino

14:20 Discussion

14:30 Coffee & Tea Break

15:00 Session Discussion Children and Specific Groups

LONG-TERM ANIMAL STUDIES AND RF

*Chair: Alexander Lerchl
Rapporteur: Jochen Buschmann*

16:00 *In vivo* studies with RF-exposure at the Fraunhofer Institute in Hannover
Clemens Dasenbrock and Jochen Buschmann

16:20 Discussion

16:30 In vivo studies with RF-exposure in Bremen

Alexander Lerchl

16:50 Discussion

17:00 Coffee & Tea Break

17:30 Divergent effects of permanent exposure to a GSM-like signal on health and survival of female Sprague Dawley rats within the same rooms: possible central role of month as well as year of birth

Christian Bartsch

17:50 Discussion

18:00 Use of experimental model systems to identify possible health effects of exposure to RF fields

David McCormack

18:20 Discussion

20:00 Dinner in the Restaurant of the Tagungshotel

Tuesday, November 18th

LONG-TERM ANIMAL STUDIES AND RF (CONTINUED)

Chair & Rapporteur: J. Buschmann

09:00 Predictivity of carcinogenicity studies in animals for human cancer risks

Wolfgang Dekant

09:20 Discussion

09:30 Session Discussion

IN VITRO-EXPERIMENTS AND RF

Chair & Rapporteur:

Kenneth R. Foster

10:00 Monitoring the effects of mobile phone radiation by the cellular stress response and by overall gene expression analysis - Recent ap-

proaches and challenges (Review)

Matthias Geastel

10:20 Discussion

10:30 Coffee & Tea Break

11:00 Mechanism of short-term ERK activation by electromagnetic fields at mobile phone frequencies

Rony Seger

11:20 Discussion

11:30 Thermal and non-thermal effects of shortwave radiation in single-cell applications

Magnus Jäger

11:50 Discussion

12:00 Session Discussion

13:00 Lunch



**MICRODOSIMETRY -
MICROTHERMAL EFFECTS?**

Chair: Ulrich Zimmermann

Rapporteur: Kenneth R. Foster

14:00 On the relation of the sub-cellular RF-Field-distribution and absorption and the dielectric properties of biological membranes

Jan Gimsa

14:20 Discussion

14:30 Microwave absorption of emulsions containing aqueous micro- and nanodroplets

Markus Antonietti

14:50 Discussion

15:00 Coffee & Tea Break

15:30 Session Discussion

18:00 Departure to Ludwigsburg, Dinner at the Restaurant Café Kaiser

Wednesday, November 19th

FINAL DISCUSSION

What is necessary to solve the open questions and what in fact needs to be solved? - Recommendations for further research

Chair: Bernard Veyret

Children and special Groups

09:00 Dosimetry with children and pregnant woman - state of research

Joe Wiart

09:20 Discussion

10:30 Coffee & Tea Break

11:00 Animal studies

12:30 Lunch

13:30 *In vitro*-studies

14:30 Microdosimetry

16:00 Closing of the workshop



VENUE & ACCOMODATION:

Deutsche Telekom AG
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http://www.training.telekom.de/internet/telekom-training/06_tagungshotels/611700_stuttgart.jsp



Arrival in Stuttgart by Car

From all directions:

- From the Stuttgarter Kreuz (interchange) take the A831 in the direction of Stuttgart / Vaihingen and the B14 in the direction of Stuttgart Zentrum as far as the "Universitat" exit
- Note: Please comply with the speed limits on the freeway as speed cameras are in operation before the "Universitat" exit
- Turn left at the first set of lights, then take the second street on the right directly to the Tagunshotel
- There is a short stay parking lot in front of the hotel

Arrival in Stuttgart by Train

From Stuttgart Hauptbahnhof (main station)

- Take the S-Bahn (city train) from platform 101, Line S1 (in direction of Boblingen) OR S2 (in the direction of Oberaichen / Flughafen) OR S3 (in the direction of Vaihingen-Flughafen) as far as the "Universitat" station
- Travel time from Stuttgart main station to "Universitat" station is 10 mins
- Leave the station via the "Universitatszentrum" exit
- The Tagungshotel is 2 minutes walk away, following the signs
- Note when buying your train ticket please give the S-Bahn station "Universitat" in Stuttgart-Vaihingen as your final destination. Your ticket will then include travel on the S-Bahn.

Arrival in Stuttgart by Air

From international airport

- Take the S-Bahn S2 train (in the direction of Schorndorf) OR the S3 (in the direction of Backnang) to the "Universitat" station
- Travel time from the airport to "Universitat" station is 17 mins
- Leave the station via the "Universitatszentrum" exit
- The Tagungshotel is 2 minutes walk away, following the signs

In case of need please contact the following persons:

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