



The FGF's research activity

The FGF promotes projects investigating biological effects of electromagnetic fields. The focus of research is on radiofrequency fields as are used by radio applications.

The spectrum of research projects ranges from molecules via cells layers to animal studies and human experiments. Further, studies on the development of exposure systems as well as investigations of influences on medical devices are promoted.

Besides the commissioning of laboratory studies, data collection and data analyses are a focus of the FGF's research work. An example is the promotion of the literature database of the Research Center for Electromagnetic Interaction of Aachen University (femu). Worldwide available scientific results are collected, analysed and prepared for the public and experts alike. Special relevance have expert workshops on current research topics organized by FGF. They are a platform for experts for closer discussion of current knowledge.

The characteristics of research promoted by the FGF are:

- independence of research
- closing knowledge gaps
- cooperation with other institutions (eg WHO, COST 281, EMF-Net) in planning research projects.

What is the basis of project selection?

Study topics are clearly defined by the FGF. In selection, the FGF bases on

- the recommendations of the WHO Research Agenda
- the proposals of national and international governmental and expert groups
- activities and results of other institutions.

In a call for tender scientists are requested to submit project proposals for a study. The selection of a research proposal is done considering recommendations of external experts.

How is independence of research guaranteed?

Research projects are commissioned only to acknowledged scientific institutions. They have to comply with the standards of the World Health Organisation (WHO). This

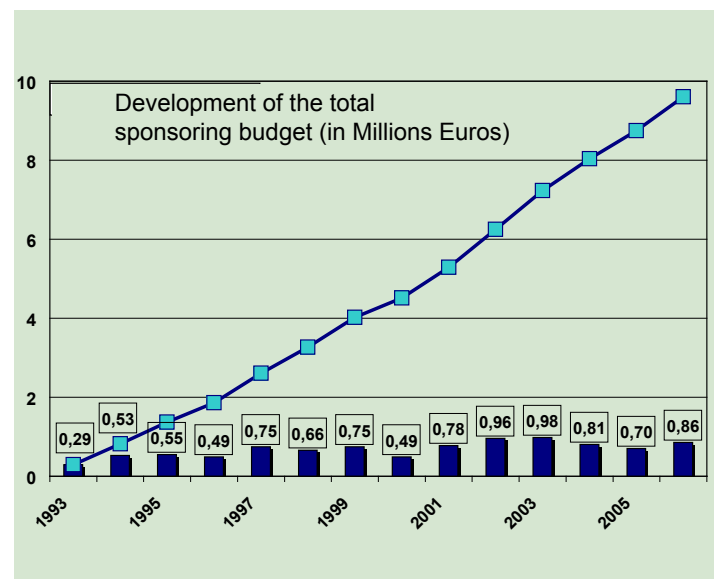
means that research results, among other things, shall be reproducible and sufficiently documented. It is already part of the projects agreement to submit the results to a scientific journal for publication.

All final reports and publications are made available to a broader public and put up for discussion. This is done by

- scientific colloquia on final results of a study
- the publication of results in peer-reviewed (ie reviewed by experts) scientific journals
- the publication in the FGF's media (Newsletter, Edition Wissenschaftt, internet pages)
- the inclusion of publications in different scientific database (eg the literature database of the FEMU in Aachen)
- workshops on the present state of knowledge about single research topics.

This method ensures a maximum of transparency and reproducibility for all research projects promoted by the FGF.

External experts are included in all phases of the project, in target definition, selection, study design as well as the acceptance of the final report.





What results have been reached so far?

With more than 50 promoted studies with an overall financial budget of more than eight million euros, the FGF has made a substantial contribution to research in the field of biological effects of electromagnetic fields in 1992. The association's work and all research projects are exclusively financed from member fees and project commissions of the European Union.

Besides literature studies, eg giving an overview of special topics such as influences on the blood-brain barrier, melatonin hypothesis or long-term experimental studies with animals, a large number of laboratory studies was made possible. A survey list is found on the pages of the FGF's internet service under http://www.fgf.de/english/research_projects/index.html.

While these studies mainly are aimed at gaining knowledge, other projects were able to elevate the standard of quality of research. They included a „Guideline for experiments in biological systems“, and the definition of a standardized GSM and UMTS radio signal for research projects, enabling comparability of different studies performed in the field of mobile radio and their replication by other research teams. Substantial sums were spent for the development of an open access database which allows a very quick and easy search for scientific publications.

Several expert workshops on single topic foci (eg influences on the blood-brain barrier or cancer risk) explored and documented the state of the art of science. These workshops thus serve as a reference basis future projects in the respective fields. the reports are available on the internet at http://www.fgf.de/english/research_projects/workshops.html.

The FGF's work going beyond pure funding of laboratory studies is an essential contribution to the optimization of study methods and qualified review and evaluation of the present state of knowledge.

The FGF provides unlimited access to its competence to its members and to national and international bodies. Moreover it has largely contributed to the elevation of the quality of research studies commissioned by other agencies.

Short Outline of the FGF Research Strategy

1. Financing

- Follow the WHO Research Agenda
- Consider research identified by
 - national governments and the EU
 - national and international expert groups
 - FGF members
- Fill gaps in knowledge
- Avoid duplication of studies and of concurrent research
- Check possibility of project funding with partners

2. Publication

- Make final reports and publications of FGF research contractors publicly available
- Disseminate information by FGF publications and services
- Support information sharing through database, e.g. Expert-Assessed Literature Data Base WBLDB established for FGF at FEMU/RWTH Aachen (<http://www.femu.de>)

3. Quality

- Oblige contractors to perform research satisfying GLP (good laboratory practice) and - if applicable - GCP (good clinical practice) requirements
- Ensure high scientific reputation of the contracted research team and the laboratory
- Require a sophisticated study design and protocol (including statistical pre- and post-analyses)

4. Credibility

- Define clear processes for the selection and management of FGF funded research projects and make it public
- Seek advice from independent senior researchers for
 - research topic identification
 - project selection process
 - result interpretation
- Make research results available for scientific review and for public information

Contact

Forschungsgemeinschaft Funk e. V.
Rathausgasse 11a • D-53111 Bonn
phone: +49(0)228 - 726 22-0
info@fgf.de • www.fgf.de