
MOBILE TELECOMMUNICATIONS AND HEALTH RESEARCH PROGRAMME

INVITATION FOR RESEARCH BIDS

The Mobile Telecommunications and Health Research Programme was set up in 2001 and, following three calls for research applications, funded 28 projects. This initial phase of research is now largely complete and the results have been summarised in the Programme's Report 2007. The Programme Management Committee has determined its priorities for a second phase of the Programme. Funds of around £6 million have been provided jointly by government and industry.

In considering future research needs, the Committee undertook a critical assessment of the research priorities identified by organisations such as WHO, AGNIR, COST 281 and EMF-NET. An evaluation of international research programmes has confirmed that there are important areas where the UK has well-established research expertise and could make a significant contribution.

Some research funds have already been allocated, see below, and the Committee now invites outline proposals to undertake research into the remaining priority areas outlined below.

Sensitivity of children to mobile phone signals

One of the key conclusions of the Stewart Report was that, if there were unrecognised adverse health effects of exposure to mobile telecommunications signals, children may be more vulnerable. Although the Committee wanted to support research in this area during the first phase of the MTHR programme, volunteer studies were viewed as ethically unacceptable, and research was consequently limited to work on an epidemiological study to look for an association between childhood cancers and base station exposure and an assessment of age-related changes in the dielectric properties of different tissues.

The Committee believes that the potential sensitivity of children remains one of the key areas of uncertainty in relation to the possible health effects of exposure to mobile phone signals. It therefore attaches a high priority to further research in this area, a view that is consistent with priorities identified by WHO. In order to understand better the research needs in this area, and in particular to avoid unnecessary duplication of work already in progress elsewhere, the MTHR Programme organised an international workshop on Mobile Phones and Children's Health at the Royal Society in June 2007. As a result of the workshop, the Committee considers that MTHR2 could make the most useful contribution by supporting one or more epidemiological studies. The types of study are discussed further below.

Brain tumours

Although recent epidemiological studies have provided reassurance that short-term exposure to mobile phone emissions is not associated with an increased risk of adult brain

cancer, none of these studies has examined the risk in children. There is greater variation in tumour type for childhood brain tumours compared with those in adults. Moreover, latency is very much shorter for paediatric tumours. As a result of these and other fundamental differences in the nature of adult and childhood tumours, it is not possible to extend conclusions from the adult studies of exposures of less than ten years to infer that a similar lack of association would be found in children.

The committee welcomes ongoing work on CEFALO, an international case-control study on brain tumours in children and adolescents, which will provide much needed data in this area. However, it also recognises that the low incidence of childhood brain tumours will limit the power of the CEFALO study. It will therefore give consideration to supporting proposals to carry out a similar study in the UK to add to the international effort. It would not be possible to add another component to the existing CEFALO study as this would be nearing completion when the UK component was starting. Hence any UK study would have to be separately powered and, in order to achieve this, it is likely that at least 500 cases would be required.

Childhood illnesses

There is currently relatively little information available on whether exposure to signals emitted by mobile phones can cause symptoms such as headaches, migraine, dizziness, anxiety, loss of concentration, or sleeplessness. The committee is aware of ongoing work in this area in Germany, but considers that there would be merit in supporting additional work in the UK.

The committee will give consideration to supporting proposals to set up a cohort study to examine whether there is any association between childhood illnesses such as those discussed above and exposure to mobile phone emissions. As a result of the far higher incidence of these childhood illnesses, the size of the cohort could be considerably smaller than that proposed for the study on adult brain cancers. It may also be possible to include a sub-study to investigate whether cognitive function is affected by exposure history, providing ethical considerations permit. This might add to information obtained from the MoRPhEUS study currently nearing completion in Australia.

High resolution modelling of fields in tissue

Most of the present knowledge of the deposition of RF energy into human tissues has been determined at fairly low resolution. In order to understand better the interactions that occur, the committee considers that it would be helpful to develop techniques in microdosimetry.

Risks of driving or operating machinery whilst using a mobile

The dangers arising when driving from the distraction caused both by hand-held and hands-free mobile phones are well established and it seems likely that machine operators will be similarly affected. The Committee believes that there is a clear need to investigate the extent to which drivers and machine operators are aware of the effect that use of a phone has on their performance and whether this awareness results in them using a phone less. It will give consideration to supporting further work in this area, which should be aimed at improving strategies to reduce the use of hands-free as well as hand-held phones.

At present the use of hands-free phones while driving is legally permitted, despite research demonstrating that the risk is similar to the use of hand held phones; the distraction is similar. Since they are legally permitted it is important to see if there are ways of reducing the distraction (although this should not be seen as an alternative to preventing their use). It will be important to have an objective means of assessing if the distraction has been reduced and the PMC considers that there is a need to establish a standard battery of tests that could be used to evaluate strategies for reducing distraction.

Administrative matters

Criteria for funding

Proposals will be assessed according to their likely ability to:

- 1 address the identified priority areas;
- 2 demonstrate a clear research hypothesis;
- 3 demonstrate cost effectiveness;
- 4 demonstrate the quality, management and competence of the research team;
- 5 demonstrate the potential deliverables and likely benefits from the research.

Funding arrangements

It should be noted that where projects fall within the area of interest of one of the UK Research Councils, proposals may be referred to the relevant Council for a funding decision. If the project is funded by a Research Council it will still be managed as part of the wider MTHR Programme. A proposal that is not supported by a Research Council because it is not considered to be a priority for them may still be considered for funding from MTHR core funds.

Application forms

For application forms please write to:

Jo Bennett, MTHR Scientific Co-ordination Team, HPA Centre for Radiation, Chemical and Environmental Hazards, Chilton, Didcot, OX11 0RQ (e-mail: MTHRDL@hpa.org.uk).

The deadline for receipt of outline proposals is **noon on Wednesday 9 January 2008**. Where outline proposals are judged by the Programme Management Committee to have potential to make a significant contribution to MTHR 2, applicants will be invited to submit detailed proposals.

Proposals already funded within MTHR2:

1. Cohort study of adult mobile phone users
2. Electrical hypersensitivity and TETRA emissions

Further information about these proposals is given in the MTHR Programme: Report 2007