

Working group meeting, COST BM0704, WG3 Epidemiology and human studies, Dublin, August 27, 2009

Working group three of the COST Action BM0704, the working group on Epidemiology and human studies, held a working group meeting in Dublin, August 2009, in connection to the scientific meeting of the International Society for Environmental Epidemiology. The purpose of the working group meeting was to discuss the current status of the epidemiological research on mobile phone use and brain tumor risk, recently completed or ongoing RF studies on both adults and children, methodological limitations of the available research and recommendations for improving exposure assessment in epidemiological studies. The working group meeting consisted of two parts. One part was open also to other researchers interested in learning more about this field of research could, in order to possibly enlarge the cooperation. The other part was open only to COST working group members, MC members, and specifically invited experts.

Open session:

This session was a symposium organized by COST BM0704 WG3 in conjunction with the ISEE conference. Around 60 persons participated, and there was an active participation from the audience with plenty of questions and discussions after each presentation.

Chairs of the session was Dr. Mireille Toledano and Professor Maria Feychting. The following presentations were included (the person presenting is underlined):

1. Mobile phone use and brain tumors - a review of the epidemiological evidence
Anders Ahlbom, Maria Feychting, Adele Green, Leeka Kheifets, David Savitz, Anthony Swerdlow
2. Ongoing mobile phone research studies and latest findings where available
Aslak Harbo Poulsen, Joachim Schüz.
3. Ongoing RF research studies and latest findings where available, German cross sectional studies, Bavarian studies, Swiss study, UK base station etc
Katja Radon, Silke Thomas, Tobias Weinmann, Anja Kühnlein, Sabine Heinrich
4. A critical evaluation of exposure surrogates in RF-EMF research: recommendations for improving exposure assessment
Martin Röösli, Patrizia Frei, Evelyn Mohler

Closed session:

During this session we had a continued and very fruitful discussion of the topics presented at the symposium. In addition, we discussed some of the ongoing national epidemiologic studies of RF exposure. Dr. Svetla Dimitrova described her studies on cardiovascular outcomes (chiefly physiological parameters, e.g. heart rate variability). We also discussed funding opportunities for further collaborations between East and West European countries. Dr. Mireille Toledano informed about their planned high school children cohort study on mobile phone use and cognitive function. A birth cohort study in the UK may also be able to study mobile phone use during pregnancy and

behavioral problems at age 7-8 years. An area that has received attention recently is studies of male fertility. Existing studies are generally poorly designed, and we discussed whether this is an area that need to be addressed by higher quality studies.

Methodological problems that need to be addressed in all studies, but especially in the studies of cognitive function, symptoms and well-being are recall bias and the possibility of reversed causality. Recall bias generally leads to overestimation of risk estimates (false positives), whereas reversed causality can affect results in any direction. For example, extensive mobile phone use can be the result of a certain personality, i.e. adolescents with behavioral problems are more likely to skip school and spend time in environments where people use mobile phones (public transportation, cafés, bars, etc) while other adolescents spend more time in school participating at lessons etc. On the other hand, persons who attribute their symptoms and lack of well-being to RF exposure from mobile phone may avoid environments where people use mobile phones and may avoid using the phone themselves, which in a cross-section study would appear as they have lower exposure than persons without symptoms. Cross-sectional designs are especially problematic in these respects.

Participants:

All members of the Epidemiology and human studies working group as well as COST BM0704 management committee members who have expressed an interest in participating in the working group are invited to the closed meeting, as well as one external expert, Dr. Katja Radon, invited to present the latest epidemiologic research on base-station exposure.

Venue:

The meeting is held in conjunction with the ISEE meeting in Dublin. Participation at the open session requires ISEE meeting registration, website: <http://www.isee2009.ie/>
The venue is University College Dublin, Ireland.