Are communication technologies and environmental exposures risk factors for brain cancer in young people?

Start of international multi-centre study MOBI-KIDS, coordinated by the Centre for Research in Environmental Epidemiology (CREAL), involving research groups in 13 countries investigating a relationship between communication technologies including mobile phones and environmental factors and brain cancer in young people

Barcelona, 11 May 2009.- Among the childhood malignancies, brain tumours are the second most common malignancy, after leukemia. The incidence of these tumours in young people under 20 years of age has been increasing recently. Although survival has improved considerably, the prevention of brain tumours is an important aim, but continues to be a challenge.

So far, little is known about risk factors for brain tumours. Some factors (e.g. exposure to ionizing radiation) and family history of brain cancer are known to increase the risk of developing brain tumours. Other environmental factors (e.g., exposure to chemicals, nutrition during pregnancy or exposure to electromagnetic fields including cellular phone use) may be associated with brain tumours. With respect to the latter, the use of cellular phones and other communication technologies has increased dramatically over the last decade, especially in children and its role in the development of brain cancer in young people has yet to be studied.

One problem in the study of environmental risk factors and brain cancer in young people has been the limited number of children included in previous studies. Although the frequency of brain cancer may have increased in young people over recent decades, it is fortunately still a rare disease. Therefore, international studies are needed to answer such research questions.
Therefore, an international multi-centre study involving experts from 13 European and non-European countries will examine the potential associations between use of communication devices and other environmental risk factors and brain tumours. The study is funded by the European Union and local funding for non-EU collaborators.

Over a study period of five years, nearly **2000 young people between 10 to 24 years with brain tumours and a similar number of young people without a brain tumour will be invited to participate in the study**. A detailed questionnaire will be used covering demographic factors, residential history and questions on risk factors in the environment including the use of cellular phones of young people. After a preparatory phase of one year, the invitations to join the study will start in 2010.

The following centres will be involved from the start:

- Australia: MONASH University
- Austria: the Medical University of Vienna
- Canada: the University of Ottawa
- France: the Association pour la Recherche Epidémiologique dans les Cancers de l'Enfant et de l'Adolescent, the Université de Lyon, Institut National de Recherche sur les Transports et leur Sécurité, Institut national de Veille Sanitaire, Unité Mixte de Recherche épidémiologique et de Surveillance Transports Travail Environnement
- Germany: the Ludwig-Maximilians-University Munich
- Greece: the National and Kapodistrian University of Athens
- Israel: the Gertner Institute for Epidemiology & Health Policy Research
- Italy: the Università degli Studi di Torino
- New Zealand: the University of Auckland
- Spain: Fundació Centre de Recerca en Epidemiologia Ambiental (CREAL), Fundació IMIM, Instituto de Salud Carlos III, University of Huelva and University of Valencia
- Taiwan: the National Taiwan University College of Public Health
- The Netherlands: Universiteit Utrecht

Support for exposure assessment will be provided by France Telecom SA and the UK Health Protection Agency

---

For further information, please contact:

Rosa Manaut, IMIM Communications Head, Tel.: 618509885 or Marta Calsina, IMIM Communications Services, Tel.: 933160680 or 638720000