

## Poster-discussion: Gene-environment interactions

### P191 ETHICAL CHALLENGES IN GENE ENVIRONMENT INTERACTION STUDIES

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Interdisciplinary research is needed to unravel the multifactorial aetiology of chronic diseases, considering both environmental and genetic risk factors, which will need more involvement of epidemiologists in the genetic area. We hypothesise that unexplicited ethical challenges are one reason of the limited involvement of “traditional” epidemiologists in genetics, and in particular on gene x occupation interaction studies, in which their expertise is invaluable. Ethical aspects mostly lie on how the research question is formulated and on the interpretation of findings. It concerns more why the research is conducted than on how (technically). Building on the concept of candidate genes, candidate gene environment hypotheses are based on explicit knowledge. Searching genes which interact with a specific environment can lead to sensitive questions. Ethical questions may differ according to the types of environmental determinants and the type of genes under study. Ethical aspects may differ according to the social control on the environment studied. Public health policies and genetics have a heavy history in the XXth century. Genetic tests in the context of employment raise three challenges: their aim, the interpretation of results at individual level, the access to the results; this could either foster individual empowerment and protection, or discrimination. Opinions of ethical committees on the topic are cautious (eg, opinion 18 of the European group on ethics). We argue for addressing ethics questions at the time of research and favouring interdisciplinarity not only between geneticists and epidemiologists but also with human