Mission:

This website is an initiative of the Center for Environmental Research and Technology, University of Bremen, Germany and the Bremen Institute for Preventive Research, Social Medicine and Epidemiology (BIPSE) to promote integrated projects and a network of excellence within the 6th framework programme of the EU (6th FP) in the field of research on susceptibility and its social impact. It shall be a forum for discussions and a platform for building a consortium. Possible projects will be posted in a non-public area to be discussed and developed among the participants of the network.

The European Commission intends to fund projects within the 6th FP which encompass a so called critical mass of expertise in the field. A two-step process is planned. The first is a call for expression of interest, the second is a call for submission of proposals. The submission of expressions interests should be made by pre-formed consortia.

The mission of this website is to bring together scientists, stakeholders and decision makers in the field of individual susceptibility and sensitivity .

The section EU documents of this website provides links to the respective documents of the EU for the 6th FP.

We do hope that you are interested in participating in the set-up process of an integrated project or network of excellence in the field of susceptibility. Please visit the registration site to receive further information for the process of building a consortium and get full access to non-public areas of the website.

Susceptibility has become widely discussed in a variety of fields in life-science over the last few years:

- molecular epidemiology and toxicology
- risk assessment,
- medical diagnostics and therapy,
- radiation biology,
- pharmacology,
- occupational and environmental health

Susceptibility describes the higher probability of an individual to develop certain diseases under a given exposure or set of exposures. This is in most cases associated to a higher sensitivity of these individuals to a specific exogenous or endogenous substance or a physical agent. Thus the terms are often used interchangingly or as synonyms. In practice the investigation of susceptibility often deals with populations exposed to an agent. The differential risk of a subgroup with a specific polymorphism in certain genes or bearing other inherited or acquired factors is then determined.

In many cases of environmental exposure sensitive subgroups appear to be present, but as yet there are no reliable and validated or even standardized methods available to allow for an objective identification of sensitive individuals. At the same time, there is a intensive debate about multiple chemical sensitivity and sensitivity to electro-magnetic fields that requires risk communication to an informed public or even regulatory elements.

Besides the growing scientific interest there is a big debate about the use of the knowledge arising from the human genome project, which identified a multitude of polymorphic genes involved in the causation of differences of susceptibility of subgroups of populations. With the increasing knowledge about genetic predispositions many new ethical and legal issues arise in terms of self determination of individual genetic information, the right of not knowing, the quality of knowledge susceptibility and the consequences for individual risk.

An integrated project within the 6th framework programme should address open key questions in the field of basic research, applied research and the regulatory field. Therefore interdisciplinary networking is required to address the open questions and scientists, stakeholders and the regulatory body should be integrated.

Among the key questions in the fields of basic research are:

- Identification of genes involved in individual susceptibility
- Identification of mechanisms of susceptibility
- Acquired sensitivity/susceptibility
- Methods for objective measurements of sensitivity
- Quality criteria for identification of genotype associated to higher risk

Key questions in the applied field are

- individualisation of radiotherapy doses
- individualisation of chemotherapy doses
- individualisation of other medications

Key questions in the regulatory field are

- Introduction of knowledge about susceptibility and sensitivity in the setting permissible levels of environmental and occupational exposures and risk estimates
- Modification of protective measures for susceptible subgroups
- Regulation of informational self determination (as to who is given permission to use genetic information)

The key questions in the regulatory field concern the setting of rules and standards to protect best interests of individuals, their relatives and the society, issues of data protection and informed consent.

We hope to create a critical mass by starting this initiative in an attempt to establish a consortium of integrated working groups with scientific credibility and excellence. This effort does not predetermine any leadership in the field or priority, but rather a starting point for transdisciplinary approaches which require intensive collaboration.

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