

## **Endocrine disruptors: scientific discussion on the basic principles for the assessment of substances that influence the hormonal system**

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On the initiative of a group of scientists, a meeting of experts has taken place on 11 and 12 April 2016 on the topic of substances that harm the hormonal system. The meeting was organised by the Federal Institute for Risk Assessment (BfR) with the aim of constructively promoting scientific discourse in this area. The precondition for determining whether the use of a specific product might result in a health risk to the consumer is the existence of a well-founded scientific assessment of the endocrine disruptors that may be present in the product in question. There are currently differing opinions among scientists who work in this area of research with regard to the basic principles used for the assessment of substances that are harmful to the hormonal system. Substances that are foreign to the body can be designated as "endocrine disruptors" if they harm the health of an organism by altering the function of the hormonal system. Such substances can occur naturally in plants, be administered in medications or contained in chemical substances and products such as plant protection products, biocides, food additives or cosmetics. The findings of the meeting will be published on the BfR website and additionally in a scientific journal.

Endocrine substances influence the hormone balance. These substances include deliberately produced substances, such as certain medications, as well as naturally occurring plant substances like phytoestrogens. These effects can also be caused by chemical substances that are produced to protect plants, combat harmful organisms or preserve certain products, such as additives used in foods or cosmetic products. If substances of this kind harm the health of an organism by influencing the hormonal system, they are called "endocrine disruptors". A well-founded scientific assessment of endocrine disruptors is necessary to be able to assess whether the use of a product might pose a health risk to the consumer. There is currently limited consensus among scientists working in this area of research regarding the basic principles for the assessment of endocrine disruptors.

25 scientists from Europe, the USA and Japan came together in Berlin to discuss the basic principles and open questions on the assessment of endocrine disruptors. The two-day expert meeting focussed on the following questions:

- How should endocrine disruptors be defined in the regulatory context of health assessment?
- What are the general principles of endocrinological effects from a toxicological, pharmacological and endocrinological perspective?
- Which sources of uncertainty influence the regulatory decision-making process?
- What adverse effects can already be documented using the existing investigation methods?
- Which scientific research activities should be initiated for the better identification of endocrine disruptors?

The aim of the scientific discourse was to discuss the issues amongst the participants and, where possible, to identify ways of resolving the differences of opinion that exist.

Agreement on the basic scientific principles is an important precondition for the definition of uniform criteria on EU level for the future health-related assessment of substances and products with endocrinologically harmful properties. The findings of the meeting are to be pub-

lished and could therefore support the EU Commission in its task of compiling regulatory criteria for the identification of endocrine disruptors in pesticides and other chemicals and products.

**You can find more information on "endocrine disruptors" on the BfR website at:**

[http://www.bfr.bund.de/en/presseinformation/2010/A/endocrine\\_disruptors\\_substances\\_with\\_harmful\\_effects\\_on\\_the\\_hormone\\_system-50525.html](http://www.bfr.bund.de/en/presseinformation/2010/A/endocrine_disruptors_substances_with_harmful_effects_on_the_hormone_system-50525.html)