

Lecture: alternative testing methods for toxicity to reproduction

## **Perspectives for alternative methods to animal testing in the field of reproductive toxicology**

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Reproductive toxicity testing is extremely animal consuming and expensive. Therefore all stakeholders are interested to reduce testing providing a high level of chemicals safety at the same time. For regulatory purposes two endpoints has to be covered for reproductive toxicity testing: developmental toxicity and fertility impairment. Under the new EU chemicals legislation REACH, two tests on developmental toxicity (OECD TG 414) and a 2-generation toxicity study (OECD TG 416) are required. According to this legislation, a significant increase in test animal numbers will be resulting, which is unacceptable from the scientific, animal welfare and economical perspectives.

Therefore scientists from the BfR as well as colleagues from regulatory agencies in the Netherlands (RIVM) and the USA (EPA) and also from industry are suggesting to save thousands of animals by restricting reproductive toxicity testing to one developmental test and a F1-generation test. As another step weight of evidence, grouping of substances and read across could help waiving many reproductive toxicity tests formally required by law.

A flexible strategy for reproductive toxicity testing of industrial chemicals will be presented, which will reduce animal use to a minimum while generating a maximum of information on the intrinsic properties of a chemical.

*Keywords: REACH, reproductive toxicology, developmental toxicity study, generation study*