## 20 Years of ZEBET: 1989 - 2009

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A short description is given of the history of ZEBET, the National Centre for the Documentation and Evalation of Alternatives to Animal Experiments of the Ferderal Government of Germany at the Federal Institute of Risk Assessment (BfR). ZEBET was established in 1989 as the first government centre focusing on reducing testing in animals.

To give an example of the duties assigned to validation centres, the national German centre ZEBET is serving the following mission:

- to establish a database & information service on alternatives at the national and international level
- to develop alternatives according to the 3Rs principle of Russel and Burch
- to fund research on alternatives
- to co-ordinate validation studies
- to co-operate with national & international funding agencies and validation centres
- to provide a forum for information on alternatives to animal testing.

In 1993 the EU followed the German example by establishing ECVAM (European Centre for the Validation of Alternative Methods) at the Joint Research Centre (JRC) in Ispra (Italy), in 1997 the federal government agencies of the USA formed ICCVAM (Interagency Coordinating Center for the Validation of Alternative Methods) and in 2005 the Japanese government has established JaCVAM (Japanese Center for the Validation of Alternative Methods) at the National Institute of Health in Tokyo. The decrease in experimental animal numbers during the past decade in Europe is illustrated by the situation in Germany and the contribution of international harmonisation of test guidelines on reducing animal numbers in regulatory testing is described. A review of the development of the principles of experimental validation is given and the 3T3 NRU in vitro phototoxicity test is used as an example for a successful validation study, which led to the acceptance of the first *in vitro* toxicity test for regulatory purposes by the OECD. Finally, the currently accepted alternative methods for standardization and safety testing of drugs, biologicals and medical devices will be summarised.