

Tracking planned experiments online could spot ways to improve animal testing

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An online database of study summaries could be systematically evaluated to uncover new information about animal testing, including potential targets for efforts to minimize harm to lab animals. A demonstration of this approach is publishing 14 December in the open access journal *PLoS Biology*.

AnimalTestInfo is a website that enables scientists who work with [lab animals](#) in Germany to communicate their work to the public. The Federal Institute for Risk Assessment (BfR) in Germany built the site in response to a 2010 European Union directive that requires accessible summaries of animal research to be published by each Member State. Scientists have been adding summaries to the site at a rate of almost 3,000 per year.

Researchers involved with AnimalTestInfo, the first website of its kind, have recognized that it could serve as a tool for evaluating and monitoring practices in laboratory animal research. To explore this potential, Bettina Bert of the BfR and colleagues undertook a pilot study of the summaries.

They first set out to objectively divide the summaries submitted to AnimalTestInfo in 2014 and 2015 into useful categories for quantitative analysis. Using the International Classification of Diseases and Related Health Problems' (ICD) system, they assigned a code to each summary corresponding to the study goals and who was expected to benefit (e.g. patients with a specific disease).

With summaries indexed according to ICD codes, the research team was able to obtain a fine-grained overview of the use of [animal testing](#). This classification approach, they say, could help surface new insights about animal testing and enhance transparency. For instance, it could enable the public to easily pinpoint who might

benefit from controversial studies involving non-human primates.

The analysis also surfaced information that may enhance efforts to minimize harm to lab [animals](#) according to the "3Rs": replacement, reduction, and refinement. By combining ICD classification with information about the number and type of lab animals being used in each study, specific research fields could be pinpointed for efforts to implement the 3Rs and conduct important research more efficiently.

The research team plans to update AnimalTestInfo with tools enabling scientists to classify their study summaries according to the ICD system and provide additional information about their research that might enhance 3R efforts.

More information: Bert B, Doerendahl A, Leich N, Vietze J, Steinfath M, Chmielewska J, et al. (2017) Rethinking 3R strategies: Digging deeper into AnimalTestInfo promotes transparency in in vivo biomedical research. *PLoS Biol* 15(12): e2003217. doi.org/10.1371/journal.pbio.2003217

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