



Meeting Report

Transition to Animal-Free Science: Phasing Out Animal Experiments, Phasing In Innovation – Animalfree Research Forum 2022

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In recognition of the economic, scientific, and ethical benefits of non-animal methods, the strategy to phase out animal testing is gaining acceptance among both the scientific and regulatory communities. Thanks to the technical advances of recent years, full replacement of animal testing might be within our reach. And yet, according to the latest statistics, 556,000 animals in Switzerland and 9.5 million animals across the EU continue to be used every year for scientific purposes. These numbers have remained relatively unchanged in the last decade, demonstrating that the efforts to replace animal use for scientific purposes have not been fruitful and a comprehensive action plan needs to be adopted.

The strategies to phase out animal experiments were discussed at the 12th forum of the Swiss-based foundation Animalfree Research held in Zurich, Switzerland, on November 14, 2022. The forum was opened by Dr **Silvia Frey**, Managing Director at Animalfree Research.

Dr **Miriam Zemanova**, Scientific Associate at Animalfree Research, started the meeting with an introductory talk providing an overview of available non-animal methodologies, the latest statistics on the number of animal experiments in Switzerland and the European Union, and some of the current initiatives across the globe to phase out animal testing.

Prof. **Thomas Hartung**, Chair for Evidence-Based Toxicology and Director of the Center for Alternatives to Animal Testing at Johns Hopkins University, USA, held a lecture titled “Implementation – the art of the possible”. Prof. Hartung reported on the technological advances of recent years, including bioengineered microphysiological systems and artificial intelligence (AI). The pace of their development is impressive, but a timely implementation, especially in the particularly conservative safety sciences, is a challenge. The dissemination of knowledge to all stakeholder groups is therefore critical, and Prof. Hartung talked about his recent and current research projects focusing on promoting the implementation of non-animal methodologies.

Franziska Grein, Science Policy Advisor for PETA UK, spoke on “Science without animals: a strategy to modernise biomedical research and testing to advance human health”. Ms Grein provided an overview of the Research Modernisation Deal

developed by PETA UK. The strategy includes the following steps: 1) immediate elimination of animal experiments shown to be poor and unreliable predictors for humans, 2) conducting critical scientific reviews to identify the areas in which animal use has failed to advance human health and should therefore be phased out, 3) implementation of transparent prospective and retrospective evaluations, 4) global harmonization, 5) redirection of funding from animal studies to the development of non-animal methods, and 6) education and training.

Saskia Aan, Science and Innovation Advisor at the Dutch Society for the Replacement of Animal Testing (Stichting Proefdiervrij), talked about “Lessons from inside the Dutch transition programme for animal-free Innovation (TPI): being part of the solution as an NGO.” The TPI, initiated in 2018 by the Dutch government, is an alliance of ten partners from research, education, society, government, and the business community. Stichting Proefdiervrij has been a partner of TPI from the start. Ms Aan shared her experience with the program and provided some suggestions for success.

Meret Schneider, member of the National Council of Switzerland, talked about the key role of politics on the path towards animal-free research using concrete examples to outline the direction in which research funding policy is currently moving. Ms Schneider also assessed the political intervention possibilities in Switzerland and presented a potential strategy for a gradual phasing-out of animal experiments.

A panel discussion with all invited speakers concluded the forum. The forum showed that while the first initiatives outlining a phasing-out strategy for animal experiments have been pioneered in some countries and regions, much more effort is needed to foster further development as well as to ensure their implementation. We thank all the speakers for sharing their knowledge and experience.

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