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Deficiencies in animal testing in Switzerland

A brief assessment of the situation regarding animal experiments in Switzerland in 2024 from the perspective of the 'doctors for animal welfare in medicine'.
You can find more detailed information on our homepage aerztefuertierschutz.ch.

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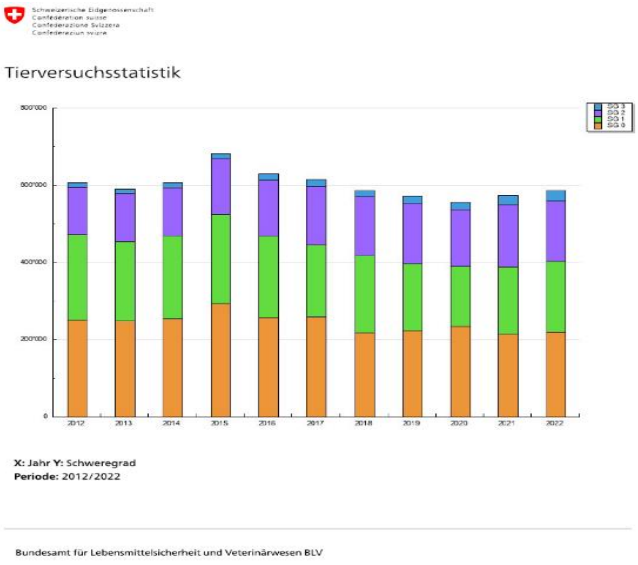
Why do doctors still have to get involved in animal testing today?

The number of animal experiments is not decreasing
The severity is not decreasing
Critical animal experiments are being outsourced abroad
In the USA alone, there are still 60,000 dog experiments per year
In Switzerland, there is no program to reduce the number of animal experiments

Neither the number of animals used in experiments nor the severity of the experiments are decreasing

There are two multipliers of animal suffering:
- the number of test animals and
- the severity.

The number of animal experiments has remained constant at around 580,000 per year since 1996, i.e. for 28 years. The severity of the experiments is also not decreasing.



The federal government relies solely on the 3R principle – although this does not reduce the number or severity of animal experiments

On February 3, 2021, the Federal Council announced the National Research Program NRP 79 with the aim of 'demonstrably reducing the number of animal experiments in scientific research and thus also the number of test

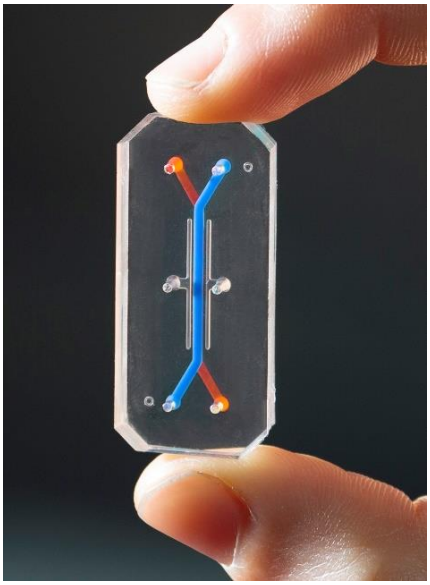
animals required. The stress on test animals in experiments and in their care should also be significantly minimized'. The subtitle of the program is 'Advancing 3R'.
The federal government's entire concept for reducing animal suffering in animal experiments has been based solely on the 3R (Replace, Reduce, Refine) principle for decades.
But we have also seen for decades that the 3R principle is not sufficient . You can read why this is the case in a detailed paper by Nico D. Müller, University of Basel [2].
3R advocates try to excuse the inadequacy of 3R with many arguments, such as 'many influencing factors', 'depending on research activity' etc.
The fact is that the multipliers of animal suffering 'number' and 'severity' are not decreasing.
So more is needed.

What is the 3R principle?

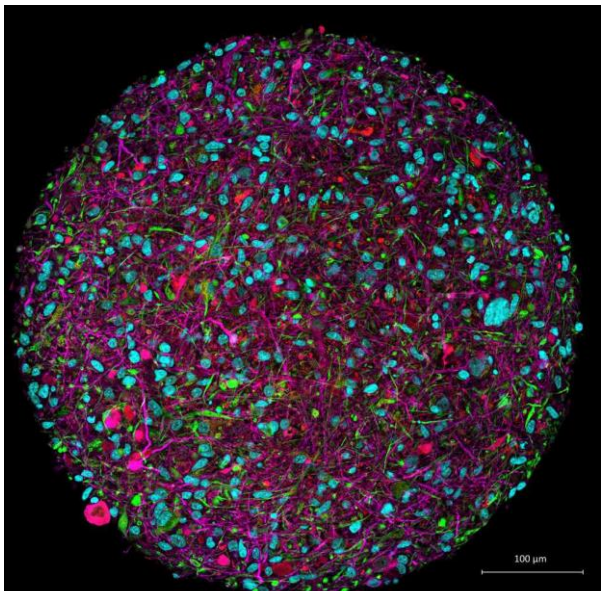
'3R' is a concept from the 1950s by Russell and Burch [3], calling for animal testing to be improved by Replace (replacing animalexperiments with a different method), Refine (using a more animal-friendly experimental design), Reduce (fewer animals per series of experiments).

What are NAMs?

NAMs are the great hope for the future of biomedical research. NAMs are 'new approach methodologies', animal-free, human-based scientific methods such as organ on a chip, organoids (3D clusters of cells from a specific organ), microphysiological systems (MPS), computer simulations with big data and AI.
NAMs will largely replace animal testing.
Development is proceeding rapidly.
'Liver chips', for example, detect liver toxicity much better than an animal model [4].
Roche has founded the Institute of Human Biology IHB, which promotes research with NAMs and will reduce animal testing.
But Roche is primarily concerned with better science.
The hope is to reduce the number of drug candidates that ultimately 'fail' in humans by using human-based development techniques.
Gold rush atmosphere and a lot of enthusiasm among researchers and animal lovers alike!



Organ on a chip
Credits Wyss Institute at Harvard



Hirn-Organoid
Credits Prof. Thomas Hartung, Johns Hopkins University

The 'Transition Program for Innovation without the use of animals TPI'

Due to the insufficient success of the 3Rs, an increasing number of European countries are introducing the TPI, also known as the 'roadmap', as a supplementary measure.
The Netherlands was and is a pioneer in this concept . The Dutch government launched the TPI in 2016 with the aim of eliminating animal testing by 2025. The target year of 2025 was too ambitious, but the program is continuing.
The Netherlands has its own official offices for the TPI as well as a 3R center that is committed to replacing animal testing with human-based methods. We were able to see this for ourselves at the annual meeting of the Eurogroup for Animals, Animals in Science Working Group, on May 15, 2024, in The Hague, the Netherlands.
The EU's TPI is most advanced in the area of toxicity testing of chemicals.
In contrast to the Netherlands, there is no authority in Switzerland that is responsible for a TPI.
Nor is there a 3R center that advocates for a TPI.

Do Swiss people want a transition to animal-free research?

68% of respondents believe that the government should commit to the transition to research without the use of animals.
This is the result of a Europe-wide survey by the Eurogroup for animals 2022.

What other countries are doing in this direction

In 2019, the Environmental Protection Agency (EPA) of the Food and Drug Administration (FDA) in the USA decided to phase out animal testing for toxicity testing on mammals and switch to NAMs.
In 2021, the **European Parliament** decided by 667 votes to 4 (97%) to call on the European Commission to establish an action plan to eliminate animal testing [5].
In 2022, the American President Joe Biden has introduced a law that will recognize non-animal testing procedures in the approval of new drugs [6].
At the European level, the revision and implementation of the 'Directive 2010/63/EU on the protection of animals used for scientific purposes' is underway. in which the Eurogroup for animals, of which we are also a member, is heavily involved.

Animal testing is transparent – really?

There are freely accessible federal animal testing statistics in which you can see the number of animal experiments by year, animal species, severity, etc. - but you can never see an actual experiment.
You can request animal testing applications from the government due to the principle of openness, but you will receive a document in which all essential sections are blackened out.
Norway shows that it can be done quite differently : you can request entire animal testing applications and

receive them without any blackening, including the correspondence between researchers and authorities!
So it is possible!

Study registries could prevent duplicate trials

A lack of mandatory publication requirements leads to publication bias, which endangers patient safety due to unpublished negative data. Study registers have been routine in clinical research for years. But when it comes to the preceding animal testing, this is suddenly no longer the case! The Animex-ch register does exist in Switzerland, but no one is allowed to view it except the authorities themselves! Research groups also cannot see what preclinical studies are already underway in their area.
Animex therefore prevents absolutely nothing, neither unnecessary duplicate trials nor publication bias. This wastes animal lives and research funds. But it also endangers patient safety.

60,000 dogs ‘used’ in the USA alone

Animal testing is increasingly being outsourced abroad.
One example of this is the animal testing on dogs, which in 2016 fell from around 300 to 0 in the area of stressful animal testing of severity levels 2 and 3.
However, dog testing is still carried out on a large scale worldwide.
In many cases it is even required by law, for example in the toxicity testing of pesticides.
In 2017, 60,000 dogs were 'used' in the USA alone [7].
Unbearable for every dog owner.
Basically, the good news is that researchers and companies have noticed that dog testing is no longer socially acceptable in Switzerland.

Serious deficiencies in animal testing committees remain

99% of applications for animal testing in Switzerland are approved… [8]
The lawyer Dr. iur. Vanessa Gerritsen, author of the Swiss standard work 'Weighing of interests in the animal testing approval process', writes: "The apodictic legal basis for the assessment of animal experiments is contradicted by the current approval practice, in which applications for animal experiments with unclear social value and therefore of questionable instrumental and final indispensability are routinely approved. [9] «
Her colleague Andreas Rüttimann concludes in the same issue: "Commissions composed accordingly (with animal welfare members being always kept in minority, note from the author) are therefore unable to fulfil the expectations placed on them by the legislature and are also incompatible with the constitutionally guaranteed equality of animal welfare and research interests. [10] "

Right of appeal of the Animal Testing Commission only in the Canton of Zurich

It is incomprehensible that laboratory animals are treated worse outside the canton of Zurich: only in Zurich there is a right of appeal for the animal testing commission.
We do not believe that laboratory animals have the slightest understanding of this federalism. Animals should be treated equally (well) throughout Switzerland.

Conclusion

1. 3R can contribute to reducing animal suffering - but 3R alone is not enough. Additional measures are needed.
2. A TPI must be introduced, ideally with a federal agency responsible for the TPI process.
3. The 3RCC needs to be reoriented towards the TPI, with more focus on replacement, as is being done by the 3R Center in Utrecht, for example.
4. The animal testing committees must be reorganized.
5. The animal testing committee's right of appeal must be introduced throughout Switzerland.
6. The transparency of animal testing must be improved.
7. Study registers must be made accessible.

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References

1 FP Gruber et al., Animal Welfare and Science, SAEZ 2004;(85):24
2 Nico D. Müller: The 3Rs Alone Will Not Reduce Total Animal Experimentation Numbers: A Fundamental Misunderstanding in Need of Correction, Journal of Applied Animal Ethics Research 2023: 1–16
3 Russell W, Burch R. The principles of human experimentation techniques. London: Methuen; 1959
4 Lorna Ewart et al., Performance assessment and economic analysis of a human liver chip for predictive toxicology, COMMUNICATIONS MEDICINE 2022(2):154
5 https://www.europarl.europa.eu/news/de/press-room/20210910IPR11926/eu-aktionsplan-zur-abtreib-von-tierexperimenten-in-der-forschung-geford
6 https://www.congress.gov/bill/117th-congress/senate-bill/5002
7 Patricia L. Bishop, Challenges and Opportunities for Overcoming Dog Use in Agrochemical Evaluation and Registration , ALTEX2023,40(3): 534–540
8 Vanessa Gerritsen: Balancing of interests in the animal testing authorization procedure: 599
9 Vanessa Gerritsen: The social benefits of animal testing, TIERethik 2024, (28): 61-90
10 Andreas Rüttimann: Problematic aspects of the composition of the cantonal animal testing commissions, TIERethik 2024, (28): 91-115