Norecopa: *Norges nasjonale konsensus-plattform* for erstatning, reduksjon og forbedring av dyreforsøk

Adrian Smith, MDNV
adrian.smith@norecopa.no

- En usminket innsikt i mitt arbeid med forsøksdyr de siste 40 årene

- ... var ikke dette nevnt i dyrevelferdsmeldingen for 20 år siden?

norecopa.no/231122

carolsplaces.com

Arbeid med forsøksdyr ved Norges veterinærhøgskole 1981-2011

Sekretær for Norecopa siden starten i 2007

peta.org

"Det du ikke vet, har de vondt av"

Forsøksdyrmedisin er "omvendt veterinærmedisin"

Forsøksdyret opplever ofte det stikk motsatte av "De 5 Frihetene"

- Frihet fra sult, tørste og feilernæring
- Frihet fra fysisk ubehag
- Frihet fra smerte, sjukdom og skade
- Frihet til å utøve normal atferd
- Frihet fra frykt og stress

mattilsynet.no/dyr_og_dyrehold/dyrevelferd/rad_om_dyrevelferd/hva_er_dyrevelferd.5017

dyrevernere

forskerne

dyreteknikerne

veterinæren

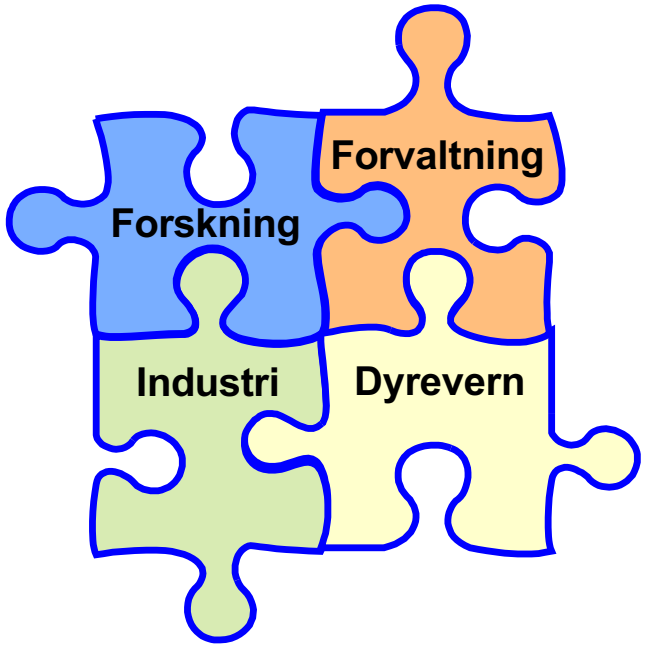
myndighetene

Hele tiden gjør vi kostnad-nytte analyser:
*kostnaden hos dyrene **(garantert)** / nytten for mennesker, miljøet eller andre dyr **(kanskje)***

Norecopa *fremmer alle* ***de tre R'ene***:

Replacement, Reduction and Refinement

Styret representerer:



Stiftet i 2007

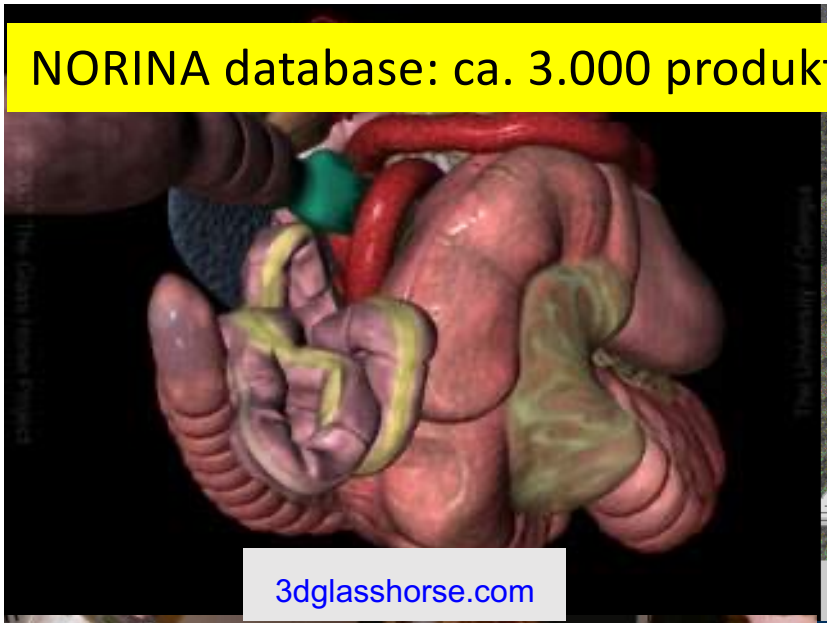
norecopa.no

- Basisfinansiering over LMDs forvaltningsstøttemidler til Veterinærinstituttet (spleis med NFD): en sekretærstilling og midler til drift
- En selvstendig medlemsorganisasjon, med eget organisasjonsnummer i Brønnøysund
- Egne vedtekter, Årsmøtet som høyeste organ
- De fleste forskningsinstitusjoner er medlemmer (beskjeden kontingent)
- Noen få individuelle medlemmer
- Målgruppen er forskere og forsøksdyrpersonell – ikke samfunnet forøvrig

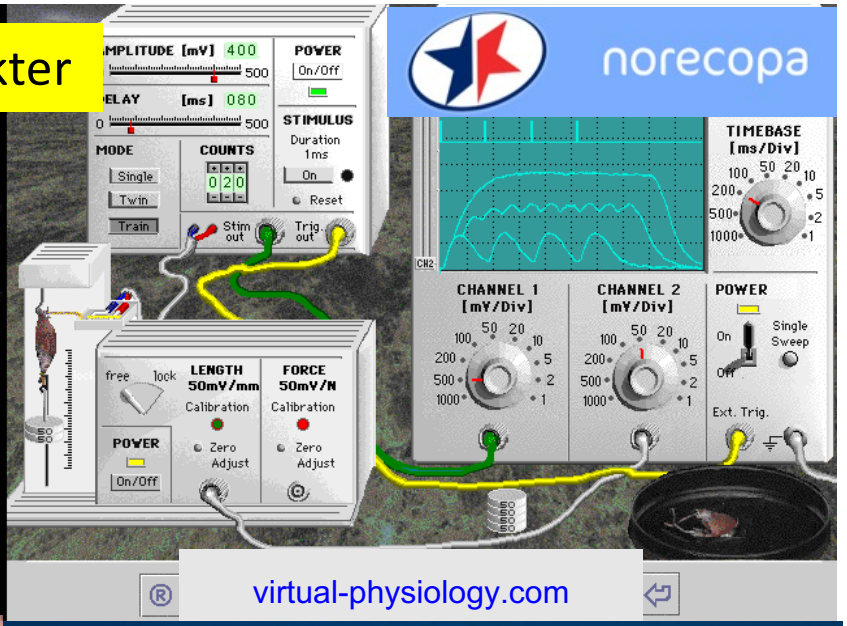
norecopa.no : en oppdatert oversikt over globale 3R-ressurse

Norecopa: PREPARE for better Science

NORINA database: ca. 3.000 produkter

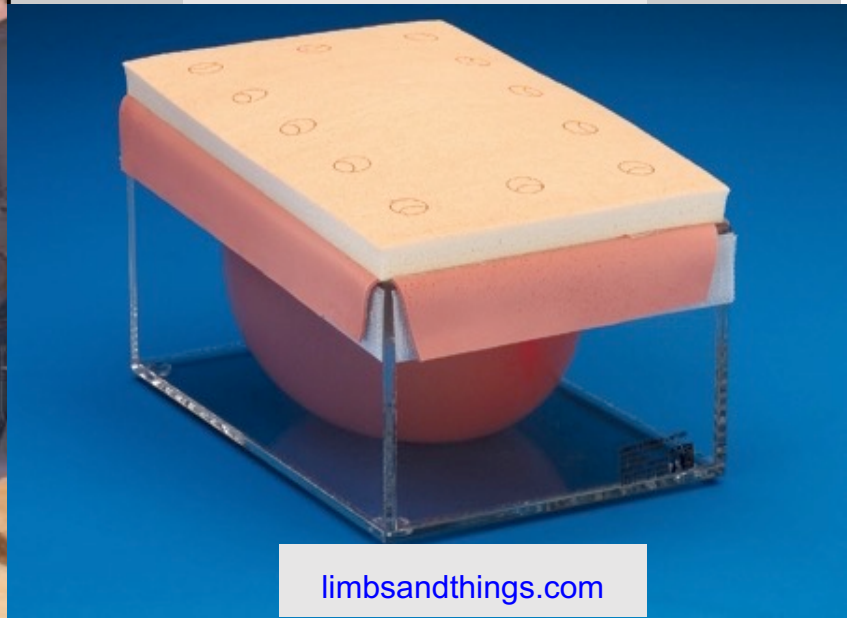


3dglasshorse.com



virtual-physiology.com

rescuecritters.com



limbsandthings.com

TextBase:

1.500 bøker relatert til forsøksdyrfaget

norecopa.no/textbase

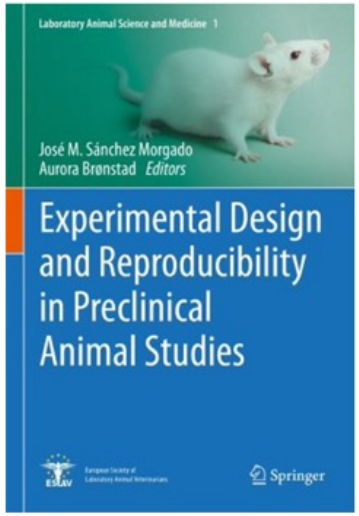
Experimental Design and Reproducibility in Preclinical Animal Studies

By José M. Sánchez Morgado & Aurora Brønstad (Eds.)

Record number: 8619d

This book provides grounds on how to plan and conduct animal experiments that can be reproduced by others. It touches on factors that may impact the reproducibility of animal studies including: the animal genetic background, the animal microbial flora, environmental and physiological variables affecting the animal, animal welfare, statistics and experimental design, systematic reviews of animal studies, and the publishing process.

The book addresses advanced undergraduates, graduate students and all scientists working with animals.



norecopa.no/textbase/experimental-design-and-reproducibility-in-preclinical-animal-studies

3R-Guide (400 retningslinjer om dyreforsøk)
norecopa.no/3r-guide

Working Party Report

Guidance on the severity classification of scientific procedures involving fish: report of a Working Group appointed by the Norwegian Consensus-Platform for the Replacement, Reduction and Refinement of animal experiments (Norecopa)

P Hawkins (Convenor)[1], N Dennison[2], G Goodman[3], S Hetherington[4], S Llywelyn-Jones[5], K Ryder[2] and A J Smith[6]

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Abstract

The severity classification of procedures using animals is an important tool to help focus the implementation of refinement and to assist in reporting the application of the 3Rs (replacement, reduction and refinement). The recently revised Directive that regulates animal research and testing within the European Union requires Member States to ensure that all procedures are classified as 'non-recovery', 'mild', 'moderate' or 'severe', using assignment criteria set out by the European Commission (EC). However, these are focused upon terrestrial species, so are of limited relevance to fish users. A Working Group set up by the Norwegian Consensus-Platform for the 3Rs (Norecopa) has produced guidance on the classification of severity in scientific procedures involving fish, including examples of 'subthreshold', 'mild', 'moderate', 'severe' and 'upper threshold' procedures. The aims are to complement the EC guidelines and help to ensure that suffering in fish is effectively predicted and minimized. Norecopa has established a website (www.norecopa.no/categorise) where more information on severity classification for procedures using fish, including field research, will be made available.

Keywords: Fish, harm–benefit assessment, humane endpoints, refinement, severity

Laboratory Animals 2011; 1–6. DOI: 10.1258/la.2011.010181

Background

An effective prediction of the effects of a research protocol on the animals concerned helps to ensure that any pain, suffering or distress they may experience will be effectively anticipated, recognized and alleviated. This is essential not only for animal welfare but also for scientific validity, because physiological and behavioural responses to suffering can significantly affect data quality. Severity classification is thus an important tool to help focus the implementation of refinement, including monitoring its progress, and to assist in reporting the application of the 3Rs (replacement, reduction and refinement) of Russell and Burch,[1] which is now an integral part of the legislation on animal research and testing in many countries. Predictions of severity are also fundamental to the harm–benefit assessments undertaken by bodies such as regulatory authorities and ethical committees when deciding whether or not a project should be licensed or funded.

There may also be a legal requirement to predict and classify severity. For example, the new Directive regulating animal use within the European Union, which must be implemented within all Member States by January 2013, requires the severity of each procedure to be classified on the basis of the 'degree of pain, suffering, distress or lasting harm expected to be experienced by an individual animal during the course of the procedure', with the aim of enhancing transparency, facilitating the project authorization process and providing tools for monitoring compliance.[2] Member States will have to ensure that all procedures are classified as 'non-recovery', 'mild', 'moderate' or 'severe' on a case-by-case basis, using the assignment

AVMA Guidelines for the Euthanasia of Animals: 2020 Edition*

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*The AVMA Panel on Euthanasia develops the content of the guidelines, with support from its working groups. The panel is required to do a comprehensive review and update of the report at least every 10 years, although more frequent major revisions are possible based on substantive information gleaned from new research and experience with practical implementation. To ensure the guidelines remain as up-to-date as possible, interim revisions (ie, those addressing substantive updates but of a less extensive nature than a major revision) are also recommended

A Gold Standard Publication Checklist to Improve the Quality of Animal Studies, to Fully Integrate the Three Rs, and to Make Systematic Reviews More Feasible

Carlijn R. Hooijmans, Marlies Leenaars and Merel Ritskes-Hoitinga

Radboud University Nijmegen Medical Centre, Central Animal Laboratory and 3R Research Centre, Nijmegen, The Netherlands

Summary — Systematic reviews are generally regarded by professionals in the field of evidence-based medicine as the highest level of medical evidence, and they are already standard practice for clinical studies. However, they are not yet widely used nor undertaken in the field of animal experimentation, even though there is a lot to be gained from the process. Therefore, a gold standard publication checklist (GSPC) for animal studies is presented in this paper. The items on the checklist have been selected on the basis of a literature analysis and the resulting scientific evidence that these factors are decisive in determining the outcome of animal studies. In order to make future systematic reviews and meta-analyses of animal studies possible, to allow others to replicate and build on work previously published, diminish the number of animals needed in animal experimentation (reduction), improve animal welfare (refinement) and, above all, improve the quality of scientific papers on animal experimentation, this publication checklist needs to be used and followed. We have discussed and optimised this GSPC through feedback from interviews with experts in the field of animal experimentation. From these interviews, it became clear that scientists will adopt this GSPC when journals demand it. The GSPC was compared with the current instructions for authors from nine different journals, selected on the basis that they featured a high number of publications on animal studies. In general, the journals' demands for the description of the animal studies are so limited that it is not possible to repeat the studies, let alone carry out a systematic review. By using the GSPC for animal studies, the quality of scientific papers will be improved. The use of the GSPC and the concomitant improvement in the quality of scientific papers will also contribute to decreased variation and increased standardisation and, as a consequence, a reduction in the numbers of animals used and a more reliable outcome of animal studies. It is of major importance that journal editors become convinced of and adopt these recommendations, because only then will scientists follow these guidelines to the full extent.

Key words: *animal experimentation, meta-analysis, publication checklist, scientific quality, systematic review*

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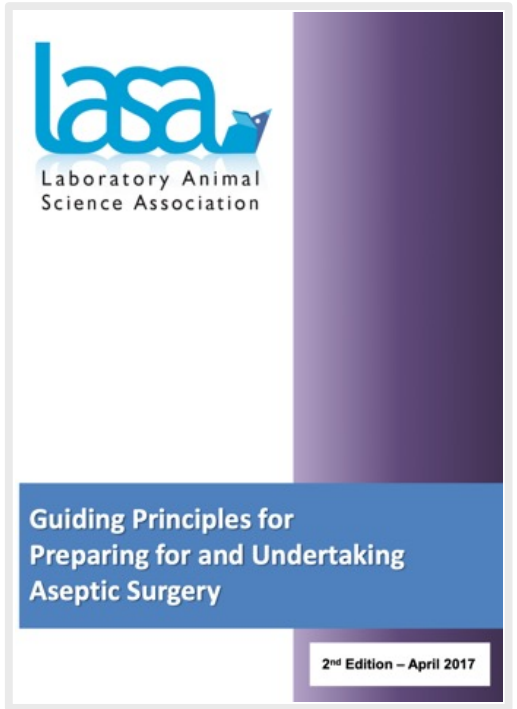
Introduction

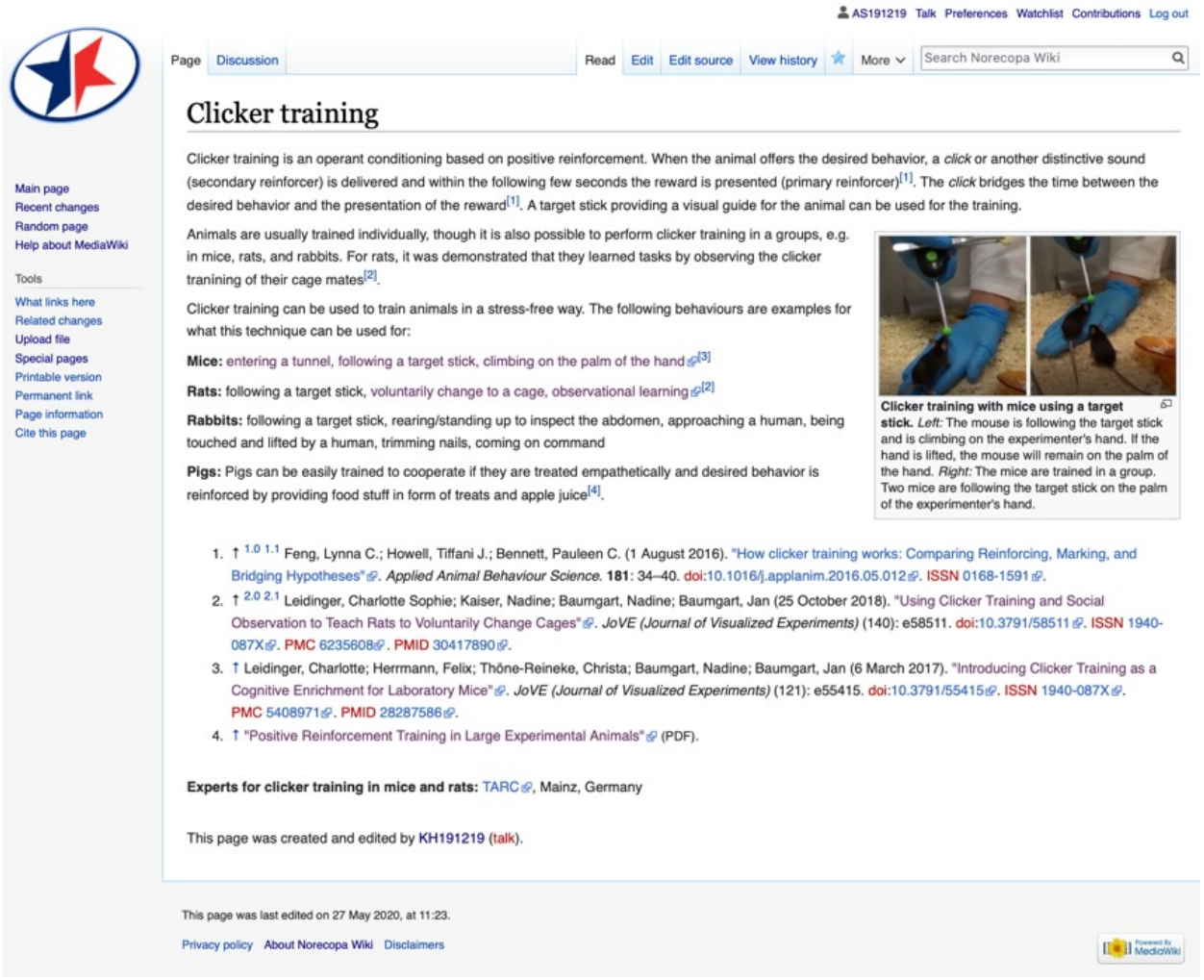
A systematic review (SR) is a literature review focused on a single question which tries to identify, appraise, select and synthesise all available high-quality research evidence relevant to that question (1). SRs are generally regarded by evidence-based medicine professionals as the highest level of medical evidence, and they are already standard practice in clinical studies. However, SRs are not yet widely used nor undertaken in the animal experimentation field, although there would be a lot to be gained from the process. A systematic approach to incorporate all available relevant literature into the design of an animal experiment is a prerequisite for research which is of high scientific quality. Good science, from a scientific as well as an animal welfare point of view, is the basis of the book. *The Principles of Humane Experimental Technique*, by Russell and Burch (2). In this book, they recommend that the Three Rs principles (*Refinement, Reduction* and *Replacement*) should be applied whenever possible in animal studies. Besides producing high-quality research, SRs of animal experiments will result in direct implementation of the Three Rs. SRs may provide the proper argumentation to decide which animal model will give the best answer to the (clinical) research question (3, 4) and to detect whether there are gaps in scientific knowledge that require new animal experiments (*replacement* and *refinement*). This will also aid in preventing unnecessary duplication of animal experiments (*reduction*), and thus discourage unnecessary animal use and time loss. A SR of animal studies will also lead to a better interpretation of the already existing scientific results from animal experiments, through which a better



Norecopa: PREPARE for better Science

Refinement Wiki

wiki.norecopa.no



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Clicker training

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Clicker training is an operant conditioning based on positive reinforcement. When the animal offers the desired behavior, a *click* or another distinctive sound (secondary reinforcer) is delivered and within the following few seconds the reward is presented (primary reinforcer)[1]. The *click* bridges the time between the desired behavior and the presentation of the reward[1]. A target stick providing a visual guide for the animal can be used for the training.

Animals are usually trained individually, though it is also possible to perform clicker training in a groups, e.g. in mice, rats, and rabbits. For rats, it was demonstrated that they learned tasks by observing the clicker tranining of their cage mates[2].

Clicker training can be used to train animals in a stress-free way. The following behaviours are examples for what this technique can be used for:

Mice: entering a tunnel, following a target stick, climbing on the palm of the hand[3]

Rats: following a target stick, voluntarily change to a cage, observational learning[2]

Rabbits: following a target stick, rearing/standing up to inspect the abdomen, approaching a human, being touched and lifted by a human, trimming nails, coming on command

Pigs: Pigs can be easily trained to cooperate if they are treated empathetically and desired behavior is reinforced by providing food stuff in form of treats and apple juice[4].

Clicker training with mice using a target stick. *Left:* The mouse is following the target stick and is climbing on the experimenter's hand. If the hand is lifted, the mouse will remain on the palm of the hand. *Right:* The mice are trained in a group. Two mice are following the target stick on the palm of the experimenter's hand.

1. ↑ [1.0] [1.1] Feng, Lynna C.; Howell, Tiffani J.; Bennett, Pauleen C. (1 August 2016). "How clicker training works: Comparing Reinforcing, Marking, and Bridging Hypotheses". *Applied Animal Behaviour Science*. **181**: 34–40. doi:10.1016/j.applanim.2016.05.012. ISSN 0168-1591.
2. ↑ [2.0] [2.1] Leidinger, Charlotte Sophie; Kaiser, Nadine; Baumgart, Nadine; Baumgart, Jan (25 October 2018). "Using Clicker Training and Social Observation to Teach Rats to Voluntarily Change Cages". *JoVE (Journal of Visualized Experiments)* (140): e58511. doi:10.3791/58511. ISSN 1940-087X. PMC 6235608. PMID 30417890.
3. ↑ Leidinger, Charlotte; Herrmann, Felix; Thöne-Reineke, Christa; Baumgart, Nadine; Baumgart, Jan (6 March 2017). "Introducing Clicker Training as a Cognitive Enrichment for Laboratory Mice". *JoVE (Journal of Visualized Experiments)* (121): e55415. doi:10.3791/55415. ISSN 1940-087X. PMC 5408971. PMID 28287586.
4. ↑ "Positive Reinforcement Training in Large Experimental Animals" (PDF).

Experts for clicker training in mice and rats: TARC, Mainz, Germany

This page was created and edited by KH191219 (talk).

This page was last edited on 27 May 2020, at 11:23.

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Norecopa er med i flere europeiske nettverk og forskningsprosjekter

The International Culture of Care Network

norecopa.no/coc

A demonstrable commitment, throughout the establishment, to improving:

- animal welfare
- scientific quality
- care of staff
- transparency for all stakeholders, including the public

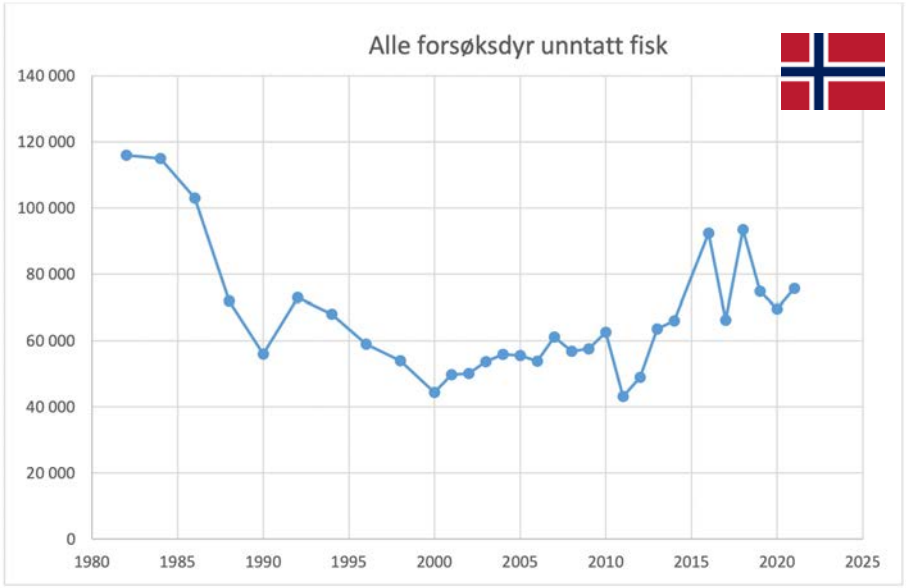
Bruk av forsøksdyr i Norge (2021)

Antallet forsøksdyr er innrapporterte tall fra forskere og forsøksdyrvirksomheter.

Art	Antall
[A1] Mice (Mus musculus)	52 554
[A2] Rats (Rattus norvegicus)	4 498
[A3] Guinea-Pigs (Cavia porcellus)	120
[A4] Hamsters (Syrian) (Mesocricetus auratus)	30
[A7] Other Rodents (other Rodentia)	1 174
[A8] Rabbits (Oryctolagus cuniculus)	20
[A10] Dogs (Canis familiaris)	41
[A12] Other carnivores (other Carnivora)	139
[A13] Horses, donkeys & cross-breeds (Equidae)	92
[A14] Pigs (Sus scrofa domesticus)	705
[A15] Goats (Capra aegagrus hircus)	404
[A16] Sheep (Ovis aries)	569
[A17] Cattle (Bos primigenius)	294
[A27] Other Mammals (other Mammalia)	678
[A28] Domestic fowl (Gallus gallus domesticus)	867
[A29] Other birds (other Aves)	12 992
[A30] Reptiles (Reptilia)	10
[A33] Other Amphibians (other Amphibia)	500
[A34] Zebra fish (Danio rerio)	29 574
[A35] Other Fish (other Pisces)	2 186 386
SUM	**2 291 647**

Vaksineutvikling og testing
Utprøving av nye systemer for oppdrett
Forskning på dyrevelferd
Bekjempelse av lakselus

mattilsynet.no/dyr_og_dyrehold/dyrevelferd/forsoksdyr/bruk_av_dyr_i_forsok_i_2021.47085/binary/Bruk%20av%20dyr%20i%20forsøk%20i%202021



https://www.mattilsynet.no/dyr_og_dyrehold/dyrevelferd/forsoksdyr/bruk_av_dyr_i_forsok_i_2021.47085/binary/Bruk%20av%20dyr%20i%20forsøk%20i%202021

Norge rapporterer til EU

	2015	2016	2017	2018 (EU-28 incl. NO) [2]	2019 (EU-28 incl. NO)[2]
Total	9,590,379	9,817,946	9,388,162	10,572,305	**10,401,673**

Table 1: Total numbers of animals used for the first time for research, testing, routine production and education purposes in the Union between 2015 and 2019 with the inclusion of data from Norway in 2018 and 2019

År	Sebrafisk	Alle fisk (inkl. sebrafisk)	Andre arter	Total
2003		796 497	53682	850 179
2004		267 375	55415	322 790
2005	2160	944 874	55552	1 000 426
2006	6049	670 235	53858	724 093
2007	4906	3 400 694	61170	3 461 864
2008	960	1 865 090	56862	1 921 952
2009	922	1 730 594	57579	1 788 173
2010	3355	1 357 795	62590	1 420 385
2011	1990	1 579 589	43125	1 622 714
2012	889	161 380	48986	210 366
2013	1551	5 458 434	63557	5 521 991
2014		4 823 202	65989	4 889 191
2015		1 140 975	89857	1 230 832
2016	8778	11 513 785	92383	11 606 168
2017	20724	1 093 413	66254	1 159 667
2018	38218	1 593 191	93467	1 686 658
2019	41148	1 206 789	74806	1 281 595
2020	38867	2 213 101	69609	2 282 710
2021	29574	2 215 960	75687	2 291 647
f.o.m. 2003		**44 032 973**	**1240428**	**45 273 401**

Norge bruker en femtedel av antallet forsøksdyr i hele EU

45 millioner forsøksdyr *siden den forrige dyrevelferdsmeldingen:*

- *44 millioner fisk*
- *1,24 millioner landdyr*

Dyrevelferdsmeldingen 2003

- Det norske forbruket av forsøksdyr er formidabelt. Vi må redusere denne bruken av levende dyr til eksperimenter som er strengt vitenskapelig nødvendig, sier landbruksminister Lars Sponheim til BT.

Den forrige dyrevelferdsmeldingen (2003):

Landbruksdepartementet vil derfor bidra til at det opprettes en nasjonal plattform, et kompetansesenter, for alternativer til bruk av dyr i forskning slik det nå gjøres i en rekke europeiske land.

En slik plattform vil spre informasjon om alternativer nasjonalt og internasjonalt og vil selv kunne initiere utvikling av alternative metoder og bedre oppstallingssystemer.

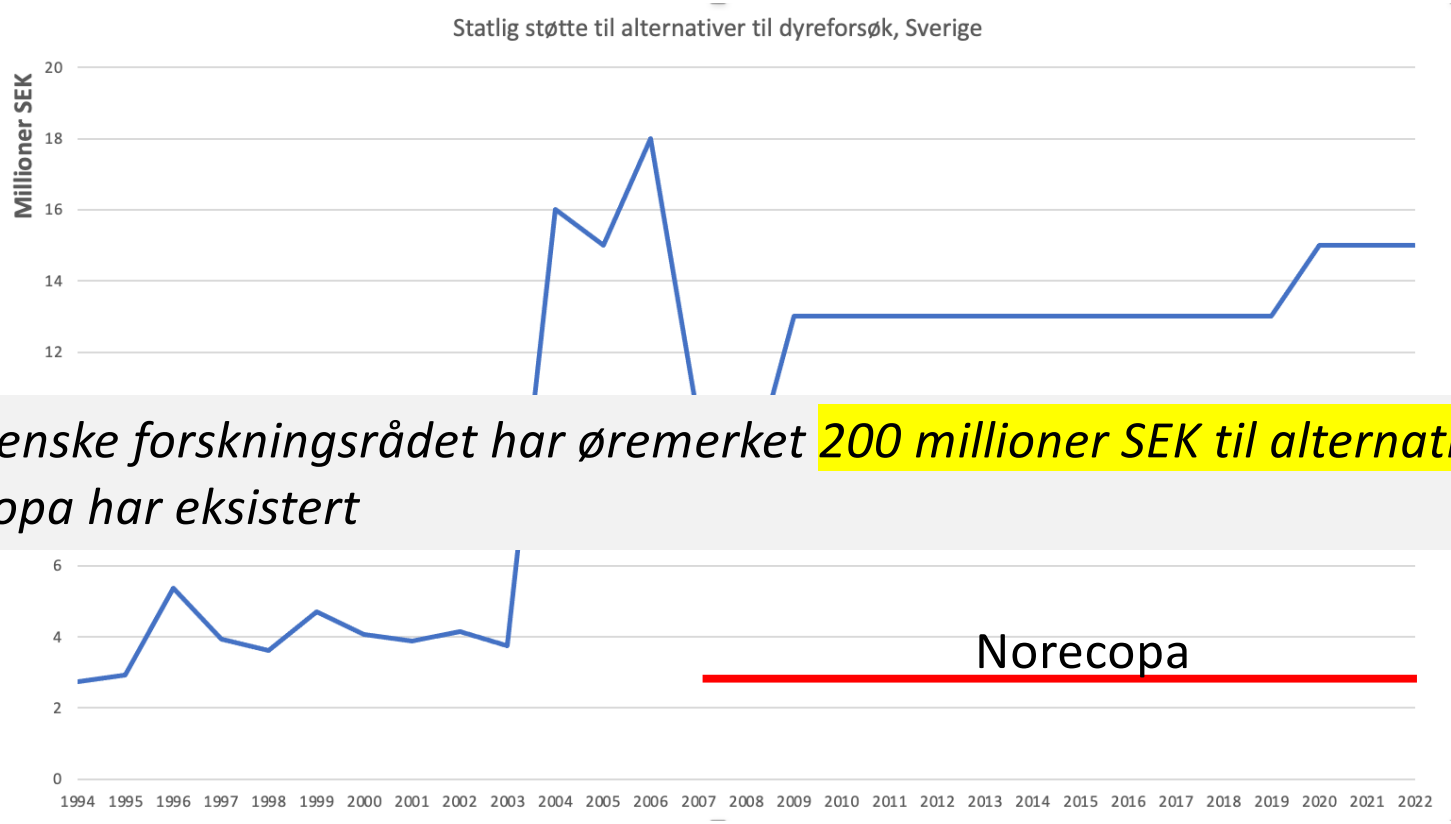
'slik det nå gjøres i en rekke europeiske land'

norecopa

Det er 30 sentre i Europa alene...

https://norecopa.no/global3r

Det svenske 3R-senteret har 9 ansatte og et årlig budsjett på 11 millioner kroner



Det svenske forskningsrådet har øremerket 200 millioner SEK til alternativer i den tiden Norecopa har eksistert

https://www.esv.se/statsliggaren/regleringsbrev/?rbid=22737 og tall fra Cecilia Børnestaf, Jordbruksverket

Saken har vært på bordet til 5 regjeringer

Norecopa ble startet med en halv stilling og 200.000 til drift...

Etter mye lobbyering på Stortinget har dette økt til én stilling og 500.000 til drift....

2000-2001	Stoltenberg I	**A**
2001-2005	Bondevik II	H, KrF, V
2005-2013	Stoltenberg II	**A**, **Sp**, SV
2013-2021	Solberg	H, FrP, V, KrF
2021-	Støre	**A**, **Sp**

***Andre saker** opptar stadig politikernes oppmerksomhet*

- *pelsdyr*
- *gris*
- *kyllinger*
- *veterinærvakten*

- *krigen i Ukraina*
- *energiprisene*
- *etc. etc.*

Standardsvar fra politikerne:

Du er for tidlig ute i forhold til budsjettet

Du er for sent ute i forhold til budsjettet

Unødig bruk av ressurser...

Timene til:

- *Lobbyvirksomhet*
- *Medieinnslag*
- *Leting etter økonomisk støtte*

Forsøksdyr er elefanten i rommet som få bryr seg om
- samtidig som det snakkes om

- *bærekraftig utvikling i produksjoner basert på dyr*
- *høykvalitetsforskning*

forbes.com/sites/rodgerdeanduncan/2014/10/14/is-there-an-elephant-in-the-room-name-it-and-tame-it/?sh=56a2804c34dd

Det er bare fisk...

Til tross for at forskerne snakker selv om en "reproducibility crisis" i forskningen

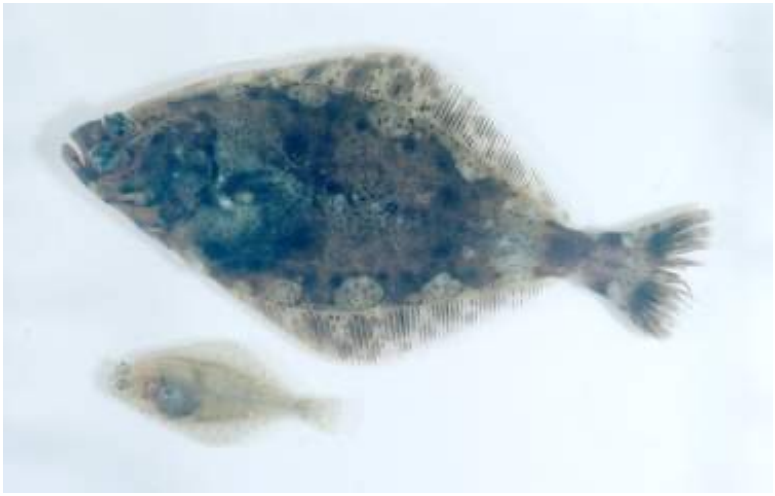
- Dårlig eksperimentelt design
  - mangel på randomisering, blinding
  - for lav statistisk styrke
- p-hacking (datamanipulering for å få p<0,05)
- Underrapportering av negative funn, dermed brukes nye dyr unødig
- HARK-ing (Hypothesising after the Results are Known)

Dirk-Jan Hoek, CC-BY.

norecopa.no/concerns

Et enormt behov for kunnskap om selve forsøksdyret!

foto: T. Poppe



Hvordan tar vi hensyn i forsøk til:

- De fysiologiske endringer i løpet av livet
- Størrelsesvariasjoner mellom jevngamle dyr
- Oppstallingsbehov – i stim eller individuelt?
- Behovet for bedøvelse og smertestillelse
- m.m.

EU forventer at vi drar lasset sammen med dem

2021/2784(RSP)

Resolution on plans and actions to accelerate the transition to innovation without the use of animals in research, regulatory testing and education

The resolution requires the Commission to establish an inter-service taskforce, including Member States and agencies, to develop action plans (with timelines, indicators and milestones) to better achieve the objectives of Directive 2010/63/EU, to accelerate the development of the alternative animal-free methods, technologies and instruments **(paragraphs 1 and 3),** and to address implementation and enforcement issues (**paragraph 4**). The private sector should be involved. Government bodies - but also the cross-sectoral European Partnership for Alternative Approaches to Animal Testing - must improve their coordinating role (**paragraph 7**). While animal experiments are still needed in several areas (e.g. research on pharmaceuticals), alternative models could also enable new breakthroughs (**paragraph 2**).

The resolution calls for a mechanism for the preferential and targeted funding of non-animal methods across all EU research and innovation initiatives. It points out the Commission's commitment to the grouping of substances for risk assessment and the use of generic risk assessments, as they will contribute to reducing animal testing (**paragraph 5**). It also asks for reduction goals, and stresses the importance of updating test method requirements as soon as non-animal methods become available (**paragraph 6**).

https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2021/2784(RSP)&l=en

Norecopa-banen: har du lyst til å bli med?

seaworld.com/orlando/rides

Egner seg ikke for småbarnsfamilier med stort huslån: stillingsprosenten bestemmes av Stortinget, 14 dager før det neste året. Jeg er ansatt i 50% stilling.

1) Faglige oppturer:

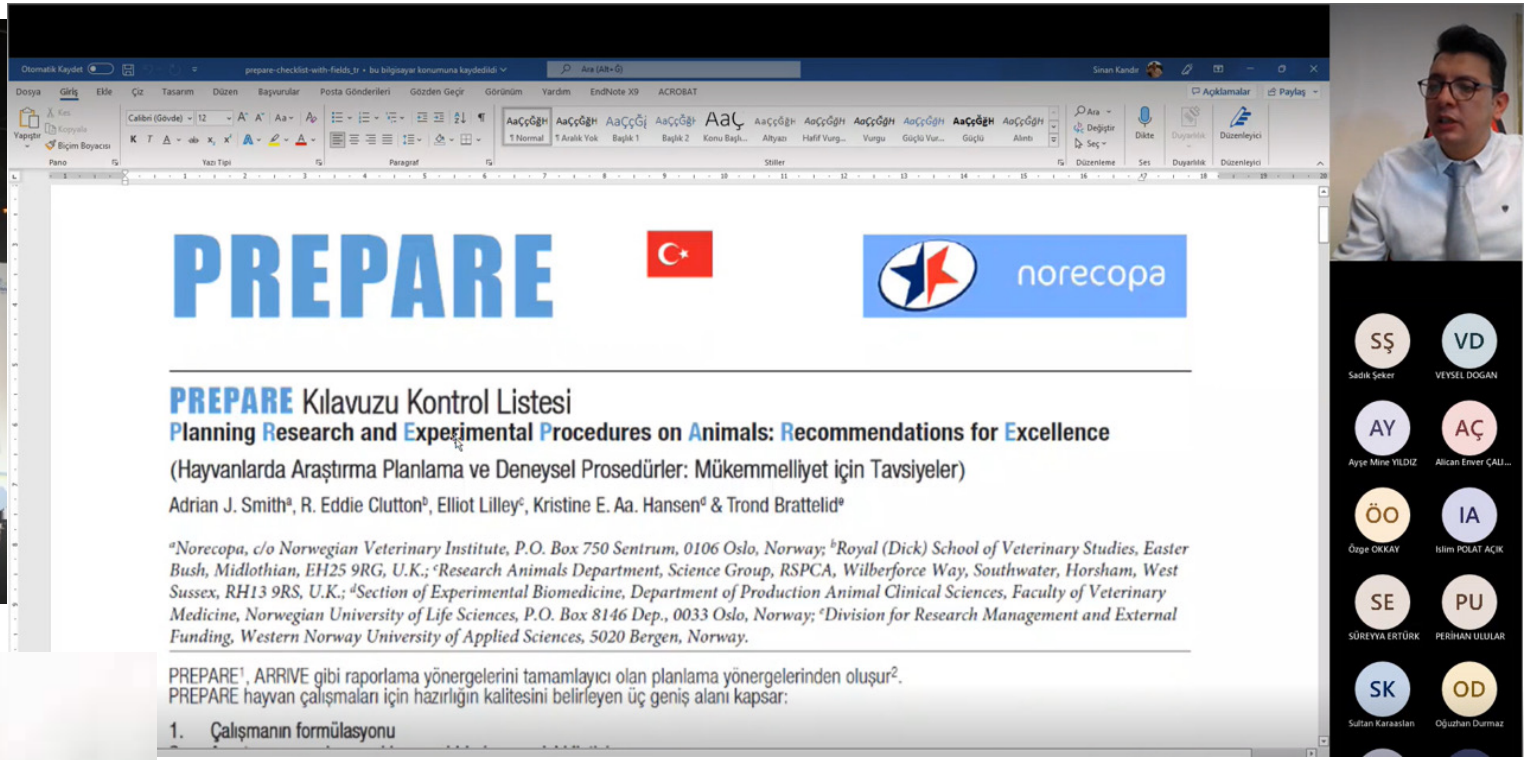
Prisbelønt internasjonal anerkjennelse

En sentral aktør i forsøksdyrmiljøet

felasa2022

FELASA juni 2022: *2.200 deltagere fra 55 land*

norecopa



PREPARE

norecopa

PREPARE Kılavuzu Kontrol Listesi

Planning Research and Experimental Procedures on Animals: Recommendations for Excellence

(Hayvanlarda Araştırma Planlama ve Deneysel Prosedürler: Mükemmelliyet için Tavsiyeler)

Adrian J. Smith[a], R. Eddie Clutton[b], Elliot Lilley[c], Kristine E. Aa. Hansen[d] & Trond Brattelid[e]

[a]Norecopa, c/o Norwegian Veterinary Institute, P.O. Box 750 Sentrum, 0106 Oslo, Norway; [b]Royal (Dick) School of Veterinary Studies, Easter Bush, Midlothian, EH25 9RG, U.K.; [c]Research Animals Department, Science Group, RSPCA, Wilberforce Way, Southwater, Horsham, West Sussex, RH13 9RS, U.K.; [d]Section of Experimental Biomedicine, Department of Production Animal Clinical Sciences, Faculty of Veterinary Medicine, Norwegian University of Life Sciences, P.O. Box 8146 Dep., 0033 Oslo, Norway; [e]Division for Research Management and External Funding, Western Norway University of Applied Sciences, 5020 Bergen, Norway.

PREPARE[1], ARRIVE gibi raporlama yönergelerini tamamlayıcı olan planlama yönergelerinden oluşur[2].
PREPARE hayvan çalışmaları için hazırlığın kalitesini belirleyen üç geniş alanı kapsar:

1. Çalışmanın formülasyonu

Er Norecopa blitt en sovepute for alle som kunne ha gjort en forskjell?

2) Politiske nedturer

Jeg er blitt skuffet gjentatte ganger av:

- **politikerne:** som nevner Norecopa i finansdebattene på Stortinget, men som ikke bevilger tilstrekkelige penger

- **embedsverket etter den forrige meldingen:**
  ‘ambisjonsnivået er en halv stilling’
  ‘irritert over at stortinget instruerer oss’
  ‘må vente på den nye dyrevelferdsmeldingen’

newlife.org

Mine konklusjoner

1. LMD skriver at dyrevelferdsmeldingen er utsatt, bl.a. fordi EU skal revidere sin dyrevelferdslovgivning*.

   **Det er vesentleg at regjeringa sitt arbeid med ei dyrevelferdsmelding tek opp i seg utviklinga i EU. EU har varsla ein heilskapleg gjennomgang av regelverket for dyrevelferd, men utkast til dette forventast ikkje å vere klart før i slutten av 2023, ein stor del av dette i form av forordningar. Gjennom EØS-avtalen kan regelverk på dette området også bli gjeldande for Noreg. Departementet legg difor til grunn at meldinga ikkje kan bli lagt fram i 2023.*
   LMD Prop. 1 S (2022-2023)

Men revisjonen gjelder ikke forsøksdyr – ***det er ingen grunn til å vente.***

Mine konklusjoner

1. LMD skriver at dyrevelferdsmeldingen er utsatt, fordi EU skal revidere sin dyrevelferdslovgivning. Men revisjonen gjelder ikke forsøksdyr – ***det er altså ingen grunn til å vente.***

2. Hurdalsplattformen sier eksplisitt at regjeringen skal støtte arbeidet med å utvikle alternativer til dyreforsøk. ***Foreløpig er det absolutt ingen tegn til dette.***

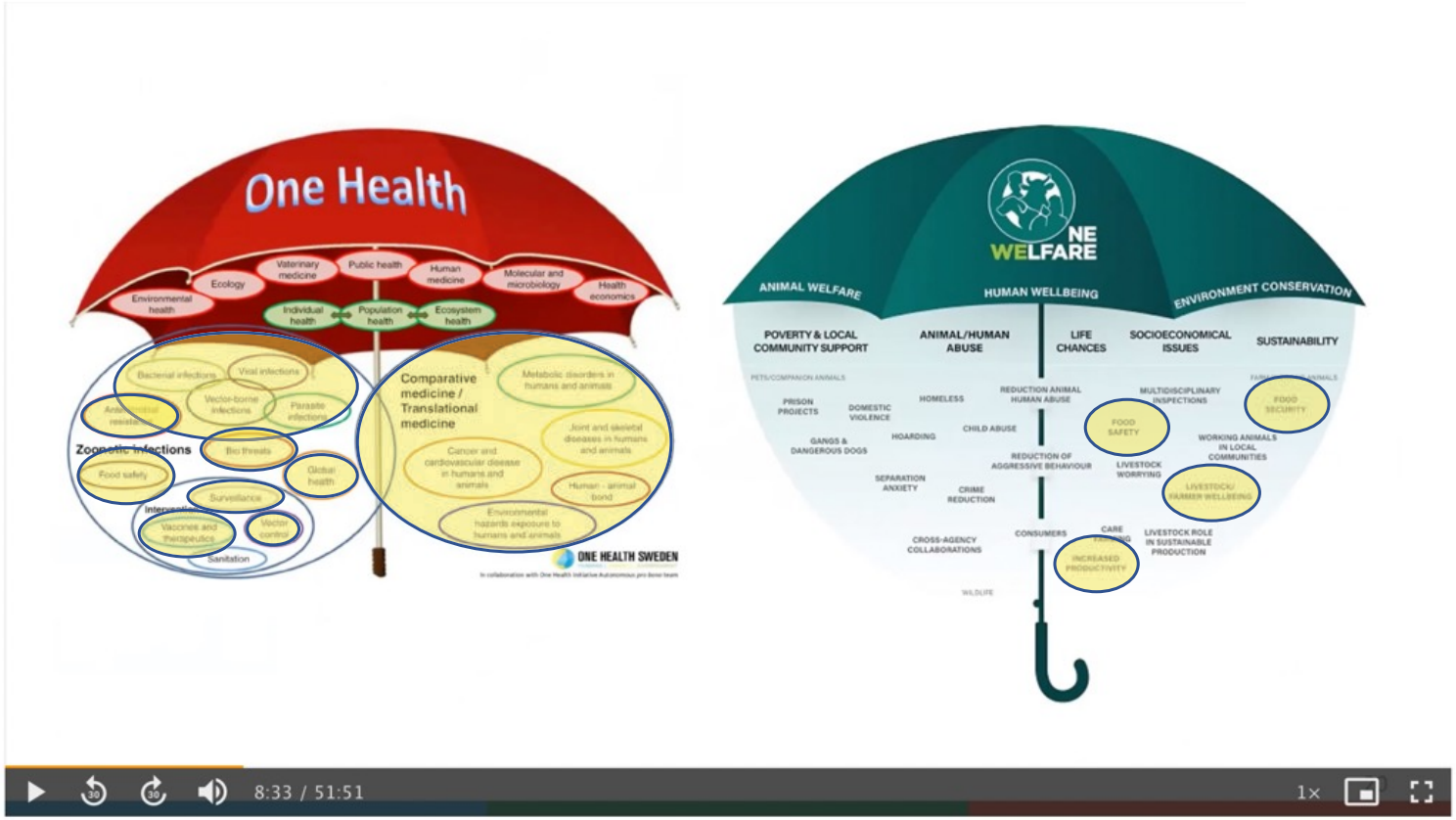
Mine konklusjoner

1. LMD skriver at dyrevelferdsmeldingen er utsatt, fordi EU skal revidere sin dyrevelferdslovgivning. Men revisjonen gjelder ikke forsøksdyr – ***det er altså ingen grunn til å vente.***

2. Hurdalsplattformen sier eksplisitt at regjeringen skal støtte arbeidet med å utvikle alternativer til dyreforsøk. ***Foreløpig er det absolutt ingen tegn til dette.***

3. Jeg mener det er ***dobbeltmoralsk*** å snakke om bærekraftige næringer og moderne helsetilbud ***uten å redusere prisen som dyrene betaler for disse***.

Én-Helse og Én Velferd – forsøksdyr er sjeldent nevnt



VPHI Webinar – 14.06.2022 – Carlos Gonçalo das Neves
2022-08, VPHI Webinar

https://tube.switch.ch/videos/ZGKbjGJkRT

Hvilke fordeler får Norge av å satse på 3R?

- ✓ mer gyldige data fra dyreforsøk som må gjennomføres
- ✓ økt dyrevelferd
- ✓ færre forsøksdyr
- ✓ anerkjennelse fra EU om at vi drar lasset

Vi trenger *et fysisk 3R-senter*

som samarbeider med Norecopa og øker Norges 3R-innsats

Apropos en NoU om forsøksdyr:

Et 3R-senter, med sine internasjonale kontakter, vil være *den opplagte kandidaten* til å gjøre den jobben – mens senteret skaffer seg oversikt over status i Norge.

Takk for meg!

Engelskspråklige nyhetsbrev