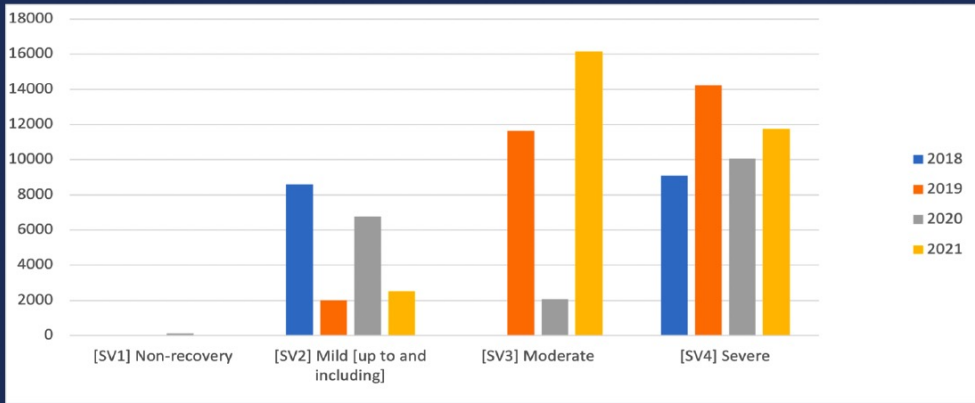
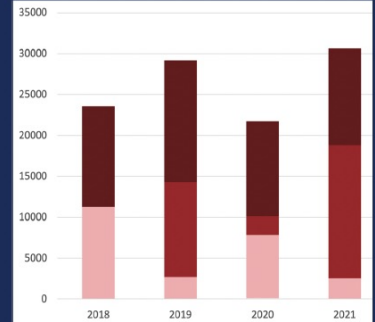
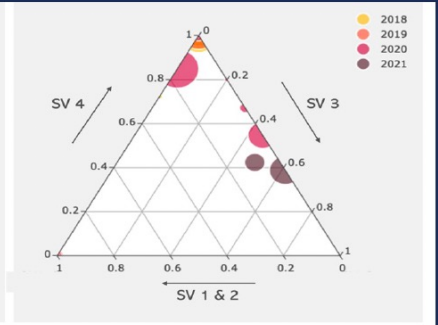
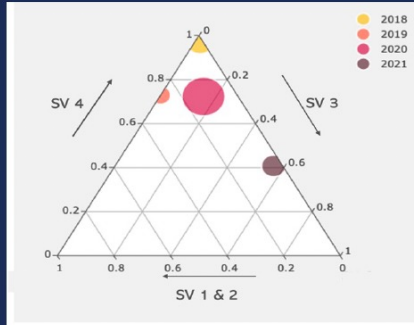


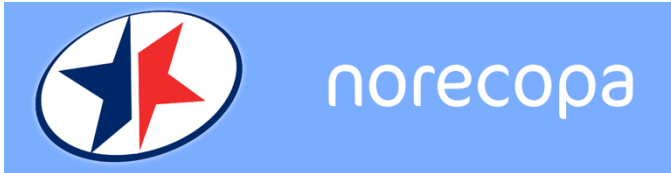


norecopa



# Annual Report for 2023

Norecopa



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## Annual Report for 2023

<i>About Norecopa</i> .....	3
<i>What have we achieved in 2023?</i> .....	3
Milestone 1: We have further developed Norecopa's website .....	3
Milestone 2: We co-founded a Nordic Zebrafish Network .....	6
Milestone 3: We held 19 presentations in 9 countries .....	6
Milestone 4: We have written a report about the use of animals in Norway .....	7
Milestone 5: We hosted the FRAME Training School in Experimental Design .....	7
Other highlights of 2023 .....	8
<i>Where does the money come from?</i> .....	8
<i>What has the money been used for?</i> .....	9
Appendix .....	10
<b>1) About the organisation</b> .....	10
Norecopa's structure and goals .....	10
Norecopa's Board and Annual General Meeting .....	11
The Secretariat .....	12
Occupational safety and health, equality and environmental impact .....	12
Norecopa's members .....	12
<b>2) Finances</b> .....	13
2023 accounts .....	13
Overview of external funding in 2023 .....	15
<b>3) Activities designed to further Norecopa's goals</b> .....	16
Network of European 3R centres .....	16
PREPARE guidelines for planning animal research and testing .....	16

<b>Presentations of Norecopa’s resources at scientific meetings</b> .....	16
<b>Further development of Norecopa’s website</b> .....	18
<b>Further development of Norecopa’s Refinement Wiki</b> .....	19
<b>Norecopa’s 3R prize</b> .....	19
<b>Norecopa’s publications during 2023</b> .....	22
<b>Newsletters</b> .....	22
<b>Scientific papers</b> .....	23
<b>Opinion pieces and other articles</b> .....	24
<b>Norecopa and social media</b> .....	24

## **About Norecopa**

Norecopa is a National Consensus Platform<sup>1</sup> working to promote ‘**the 3Rs**’ (**Replacement, Reduction, Refinement**)<sup>2</sup> within animal research. The 3Rs refer to a variety of methods to avoid animal experimentation, or to reduce the burden on animals to an absolute minimum.

Norecopa’s structure and goals are described in greater detail in the Appendix to this Report. Norecopa’s slogan, which expresses its core goals and values, is:

### ***PREPARE for better Science***

Norecopa turned 16 on 10 October 2023. Even though we did not manage to generate political interest in more resources for 3R work in Norway, the organisation made great strides ahead throughout the year. The progress we made was due, to a large extent, to international interest in Norecopa’s web-based resources.

### ***What have we achieved in 2023?***



Norecopa has, among other things:

1. further developed its comprehensive website
2. co-founded a Nordic Zebrafish Network
3. held 19 presentations in 9 countries
4. written a report about research animal use in Norway from 2018 to 2021
5. hosted the FRAME Training School in Experimental Design

More details and Norecopa’s other activities are described in the Appendix.

### **Milestone 1: We have further developed Norecopa's website**

The [norecopa.no](https://norecopa.no) website is Norecopa’s greatest resource, which is freely available to everyone. The website is organised as a single large database, with 9,800 individual pages by the end of 2023.

On 18 June 2023 Norecopa transferred the collection of site statistics from Google Analytics to Matomo. The number of registered hits on the website is probably not totally comparable

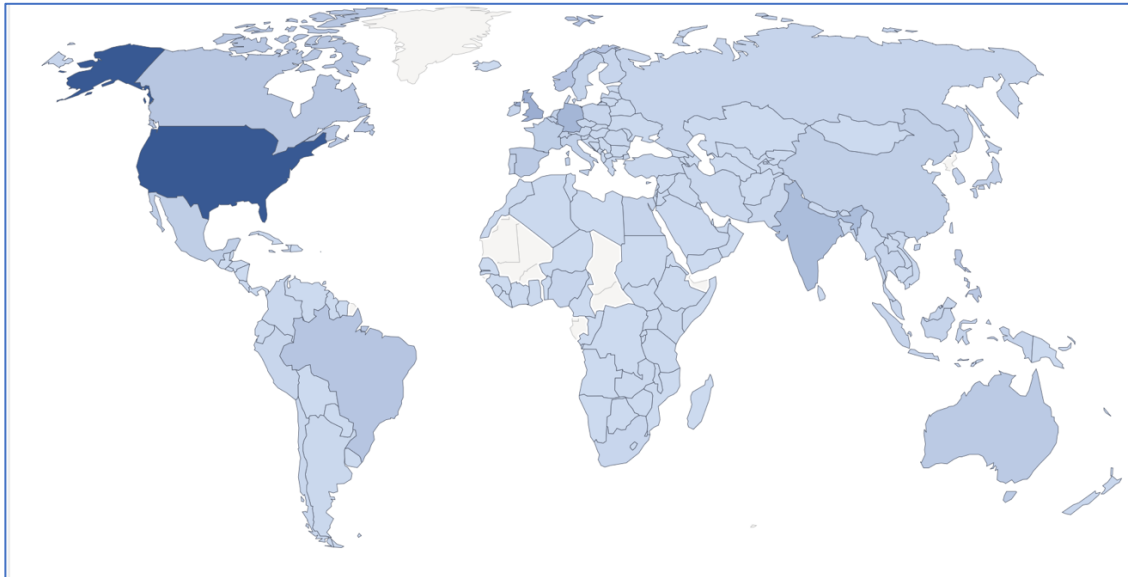
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<sup>1</sup> <https://norecopa.no/about-norecopa/consensus>

<sup>2</sup> <https://norecopa.no/alternatives/the-three-rs>

after the transfer and after instalment of an app allowing users to block cookies. An average of approximately 6,000 hits were registered in 2023, making a total of approximately 350,000 for the year from approximately 220,000 users. Figures for 2022, using Google Analytics alone, were 343,754 hits from 186,372 unique users.

The 2023 statistics from Matomo indicate that the website is in use in most of the world's countries:



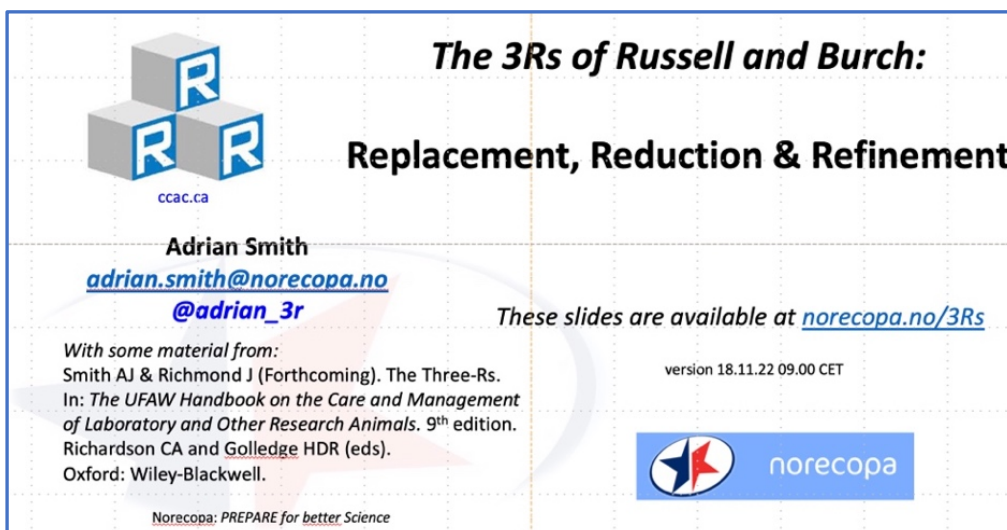
The website also contains several other established “databases” that require regular updating. Norecopa hires help for the updating of two of these: NORINA (3,000 pages) and TextBase (1,500 pages), which provide alternatives to using animals for educational purposes and textbooks on laboratory animals, respectively. Information on discontinued products is removed from the databases, and information on new products is added. Norecopa’s Secretary also invests a lot of time in maintaining the sections of the website.

Norecopa’s website is driven by programs on external servers in several European countries. These share the work between them and take backups, under licence and with company support agreements. The software needs continuous updates, and the system is regularly checked for functionality. Such routine maintenance tasks cost Norecopa at least NOK 100,000 per year. An advantage of Norecopa’s solution is that the website is extremely reliable and is virtually never offline. Moreover, upgrade work can be done on a copy of the website. This means that we do not have to take the website offline when doing work on it.

Towards the end of 2022 Norecopa published a comprehensive presentation in PowerPoint, illustrating the development of the 3R principle and the current interpretation of the concept.

The presentation consists of some 40 images, which are available to download in PDF format from Norecopa's website: [norecopa.no/3R](https://norecopa.no/3R). *Bona fide* teachers can obtain the PowerPoint file from Norecopa and use it in their teaching.

In 2023 the presentation was translated into French and Spanish, and work was started on a German version (which was subsequently released in 2024).



**The 3Rs of Russell and Burch:**  
**Replacement, Reduction & Refinement**

ccac.ca

**Adrian Smith**  
[adrian.smith@norecopa.no](mailto:adrian.smith@norecopa.no)  
[@adrian\\_3r](#)

These slides are available at [norecopa.no/3Rs](https://norecopa.no/3Rs)

version 18.11.22 09.00 CET

With some material from:  
Smith AJ & Richmond J (Forthcoming). The Three-Rs.  
In: *The UFAW Handbook on the Care and Management of Laboratory and Other Research Animals*. 9<sup>th</sup> edition.  
Richardson CA and Golledge HDR (eds).  
Oxford: Wiley-Blackwell.

Norecopa: PREPARE for better Science

Norecopa also hosts PREPARE (*Planning Research and Experimental Procedures on Animals: Recommendations for Excellence*), a set of guidelines that help scientists remember all the factors which they should consider when planning experiments which can involve the use of animals. An article about PREPARE was first published in 2017, and Norecopa has upgraded the resource many times since then.

PREPARE consists of a 2-page checklist<sup>3</sup> with 15 main topics, and webpages<sup>4</sup> which explain and expand upon the checklist. The checklist was translated into one additional language in 2023 (Serbian), so it is now available in a total of 35 languages. The webpages are continuously updated, as new guidelines and relevant scientific discoveries are published.

<sup>3</sup> <https://norecopa.no/PREPARE/prepare-checklist>

<sup>4</sup> <https://norecopa.no/PREPARE>



Norecopa: PREPARE for better Science

**PREPARE**

**The PREPARE Guidelines Checklist**  
 Planning research and experimental procedures on animals: recommendations for excellence

Adrian J. Smith, R. Eddie Oulhaj, Ethel Levy, Kristin E. A. Hansen & Trond Stubhaug  
 Norecopa, 2023. Norecopa is a non-profit organization established in 2012. Norecopa is a non-profit organization established in 2012. Norecopa is a non-profit organization established in 2012.

PREPARE consists of planning guidelines which are complementary to reporting guidelines such as ARRIVE.  
 PREPARE covers the three broad areas which determine the quality of the preparation for animal studies:

1. Formulation of the study
2. Dialogue between scientists and the animal facility
3. Quality control of the components in the study

The topics will not always be addressed in the order in which they are presented here, and some topics overlap. The PREPARE checklist can be applied to broad-spectrum needs, such as field studies. PREPARE includes guidance on the management of animal facilities, and in-house experiments are dependent upon their quality. The full version of the guidelines is available on the Norecopa website, with links to related resources. <https://norecopa.no/PREPARE>.  
 The PREPARE guidelines are a dynamic self which will evolve as more species- and situation-specific guidelines are produced, and as best practices within laboratory animal science progress.

Topic	Recommendation
<b>(A) Formulation of the study</b>	
1. Literature searches	<input type="checkbox"/> Form a clear hypothesis, with primary and secondary outcomes. <input type="checkbox"/> Consider the use of systematic reviews. <input type="checkbox"/> Search open databases and reference specialists to be consulted, and construct search terms. <input type="checkbox"/> Assess the relevance of the queries to be used, its biology and suitability to answer the experimental questions with the least suffering, and to welfare needs. <input type="checkbox"/> Assess the reproducibility and translatability of the project.
2. Legal issues	<input type="checkbox"/> Consider how the research is affected by relevant legislation for animal research and other areas, e.g. animal transport, occupational health and safety. <input type="checkbox"/> Locate relevant guidance documents, e.g. OfP guidance on project evaluation.
3. Ethical issues, harm/benefit assessment and humane endpoints	<input type="checkbox"/> Construct a lay summary. <input type="checkbox"/> In dialogue with ethics committees, consider whether statements about this type of research have already been produced. <input type="checkbox"/> Address the 3Rs (replacement, reduction, refinement) and the 2S (signed science, good sense, good opportunities). <input type="checkbox"/> Consider pain-relief and the publication of negative results. <input type="checkbox"/> Perform a harm-benefit assessment and justify any likely animal harm. <input type="checkbox"/> Discuss the learning objectives, if the animal use is for educational or training purposes. <input type="checkbox"/> Address a severity classification to the project. <input type="checkbox"/> Define objective, easily measurable and unambiguous humane endpoints. <input type="checkbox"/> Discuss the justification, if any, for death as an end-point.
4. Experimental design and statistical analysis	<input type="checkbox"/> Consider animal welfare, statistical power and significance levels. <input type="checkbox"/> Define the experimental unit and decide upon animal numbers. <input type="checkbox"/> Choose methods of randomisation, prevent observer bias, and decide upon inclusion and exclusion criteria.

Topic	Recommendation
<b>(B) Dialogue between scientists and the animal facility</b>	
5. Objectives and scientific, funding and division of labour	<input type="checkbox"/> Arrange meetings with all relevant staff when early plans for the project exist. <input type="checkbox"/> Construct an agreement template for the project, indicating the need for assistance with preparation, animal care, procedures and waste disposal/contaminated. <input type="checkbox"/> Discuss and discuss all expected and potential costs. <input type="checkbox"/> Construct a detailed plan for division of labour and expenses at all stages of the study.
6. Facility provision	<input type="checkbox"/> Conduct a physical inspection of the facilities, to evaluate building and equipment standards and needs. <input type="checkbox"/> Discuss staffing levels at all stages of the study.
7. Education and training	<input type="checkbox"/> Assess the current competence of staff members and the need for further education or training prior to the study.
8. Health risks, waste disposal and decontamination	<input type="checkbox"/> Perform a risk assessment, in collaboration with the animal facility, for all persons and animals affected directly or indirectly by the study. <input type="checkbox"/> Assess, and if necessary produce, specific guidance for all stages of the project. <input type="checkbox"/> Discuss means for containment, decontamination, and disposal of items in the study.
<b>(C) Quality control of the components in the study</b>	
9. Test substances and procedures	<input type="checkbox"/> Provide as much information as possible about test substances. <input type="checkbox"/> Consider the feasibility and validity of test procedures and the skills needed to perform them.
10. Experimental animals	<input type="checkbox"/> Decide upon the characteristics of the animals that are essential for the study and for reporting animals. <input type="checkbox"/> Avoid generation of surplus animals.
11. Quarantine and health monitoring	<input type="checkbox"/> Discuss the animals' daily health status, any needs for transport, quarantine and isolation, health monitoring and consequences for the personnel.
12. Housing and husbandry	<input type="checkbox"/> Attend to the animals' specific needs and needs, in collaboration with expert staff. <input type="checkbox"/> Discuss administration, optimal housing conditions and procedures, environmental factors and any experimental limitations on these (e.g. food deprivation, solitary housing).
13. Experimental procedures	<input type="checkbox"/> Develop refined procedures for capture, immobilisation, marking, and release or rehoming. <input type="checkbox"/> Develop refined procedures for substance administration, sampling, analgesia and anaesthesia, surgery and other techniques.
14. Humane killing, perfusion, harvest or euthanasia	<input type="checkbox"/> Consult relevant legislation and guidelines used in advance of the study. <input type="checkbox"/> Define primary and emergency methods for humane killing. <input type="checkbox"/> Assess the competence of those who may have to perform these tasks.
15. Necropsy	<input type="checkbox"/> Construct a systematic plan for all stages of necropsy, including location, and identification of all animals and samples.

References  
 1. Smith AJ, Oulhaj RE, Levy E, Hansen KE & Stubhaug T. PREPARE Guidelines for Planning Animal Research and Testing. *Laboratory Animals*. 2023; 57(1): 1-11. DOI: 10.1177/00243245231182423.  
 2. Williams C, Brown M, Cahill K, et al. Improving Biomedical Research: The ARRIVE Guidelines for Reporting Animal Research. *PLoS Biology*. 2010; 8(10): 1-6. DOI: 10.1371/journal.pbio.1000511.

Further information  
<https://norecopa.no/PREPARE/> | [pre@norecopa.no](mailto:pre@norecopa.no) | [@norecopa](https://www.instagram.com/norecopa)

More information about the website is available in the Appendix.

## Milestone 2: We co-founded a Nordic Zebrafish Network

Following initial discussions at the Scand-LAS symposium in Uppsala in 2023, between Lars Bräutigam (Karolinska Institutet, Stockholm), Cesilie Amundsen (Nord University) and Adrian Smith (Norecopa), an initiative was taken to arrange a 3-day practical course in zebrafish husbandry and techniques followed by a 2-day networking event to discuss the foundation of a Nordic Zebrafish Network. These events took place at Karolinska Institutet on 13-17 November 2023.

The practical course was limited to 10 participants and gave them insight into good management practices for the care and use of zebrafish in research.

The networking event resulted in the formation of a Nordic Zebrafish Network, with a Steering Committee representing all the Nordic countries (except Iceland, which subsequently joined the Network in 2024).

The Committee hope that the course and networking meeting will become annual events. A website for the Network is under construction.

## Milestone 3: We held 19 presentations in 9 countries

In 2023, Norecopa's resources were presented in the following countries:

*India, Iran, Italy, the Netherlands, Norway, Slovenia, Sweden, United Kingdom & USA*



Of the 19 presentations, 18 took the form of lectures, of which 15 were invited lectures. You can find an overview of the presentations in the Appendix.

#### **Milestone 4: We have written a report about the use of animals in Norway**

Norway is among those countries in Europe that use most animals in research and testing. Norecopa obtained detailed official data from the regulatory authorities, in order to describe this use. The authorities provided detailed data for the years 2018-2021 (data before 2018 was not considered sufficiently reliable for comparison). The data was combined into one large Excel file, which was then used to produce bar charts and figures showing the major findings, with emphasis on the severity of the procedures and the purpose for which the animals were used. This work was performed by Antoine Champetier, Swiss 3R Competence Center, University of Bern.

The report is available at <https://norecopa.no/statistics>

The work of producing this report was funded by a grant from the Research Fund of the Norwegian Animal Protection Alliance (*Dyrevernalliansen*)<sup>5</sup>.

Norecopa then applied for further funds from the Fund to perform a closer inspection of the reasons for the trends observed in this preliminary report, which necessitates obtaining permission for access to details of those projects that had the greatest influence on the statistics. Norecopa received funding and will conduct this work in 2024.

#### **Milestone 5: We hosted the FRAME Training School in Experimental Design**

Norecopa has collaborated with FRAME for several years by providing presentations at their annual Training Schools in Experimental Design<sup>6</sup>. In 2023 the School, the 16th of its kind, was arranged in Bergen, Norway from 27 to 29 March, in collaboration with the University of Bergen. The 33 participants were from Norway, Belgium, Switzerland, Luxembourg, Sweden, Italy, Denmark, Saudi Arabia and the UK.

Adrian Smith also presented at FRAME's course on "3Rs and Ethics by Design Training" for early career researchers on 28 November 2023.

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<sup>5</sup> <https://dyrevern.no>

<sup>6</sup> <https://frame.org.uk/what-we-do/training-school>



## Other highlights of 2023

Norecopa has also taken part in the network of European 3R centres, EU3Rnet<sup>7</sup>, which applied for and was awarded a grant for a “COST<sup>8</sup> Action” entitled IMPROVE (“3Rs concepts to improve the quality of biomedical science”).

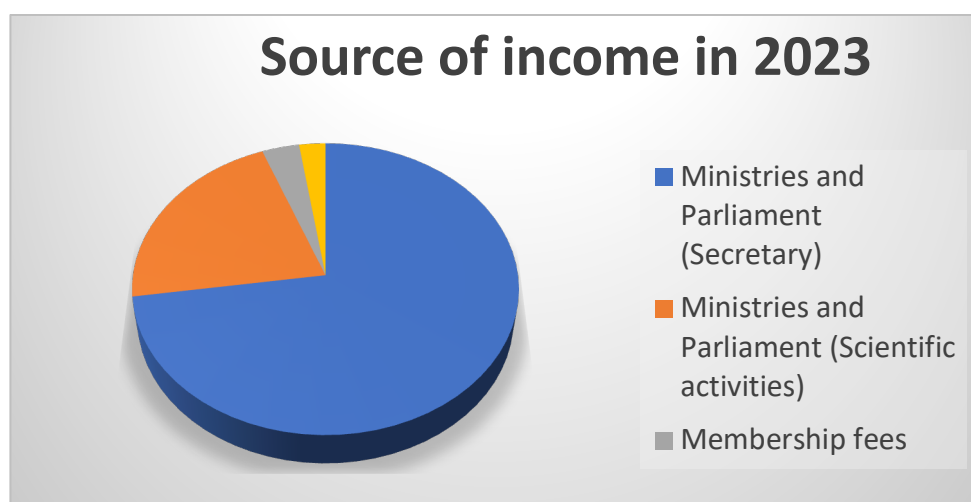
Norecopa donated NOK 8,000 to Cesilie Amundsen so that she could attend the Scand-LAS symposium in Uppsala. Participation in this event led to the foundation of the Nordic Zebrafish Network described elsewhere in this Report.

Norecopa became a Member Organisation of AAALAC International<sup>9</sup> in August 2023. AAALAC International is a private, nonprofit organization that operates voluntary evaluation and accreditation programs for research animal facilities worldwide. Adrian Smith was appointed as Norecopa's Member Organisation Delegate until December 2025.

### ***Where does the money come from?***

Norecopa’s core funding comes from the Norwegian Ministry of Agriculture and Food, as part of the administrative support subsidy (for *forvaltningsstøtte*) allocated to the Norwegian Veterinary Institute. The grant covered the cost of Norecopa’s Secretary in a full-time position, leaving NOK 500,000 aside for scientific activities, as in 2022.

The rest of Norecopa’s activity was financed by membership fees and external funds for which Norecopa had applied. These are described in the Appendix.



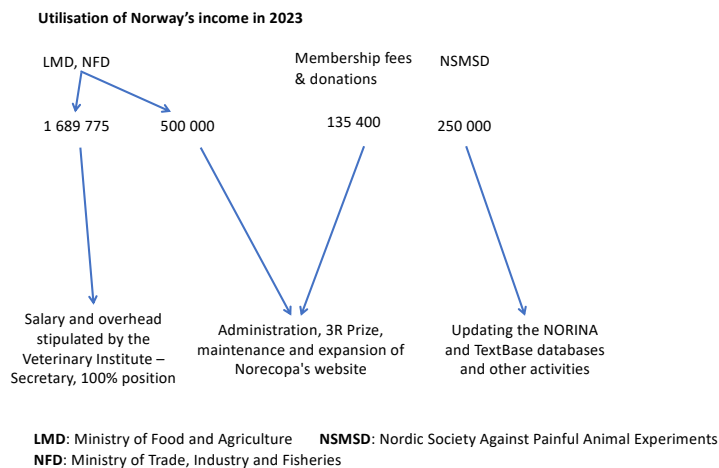
<sup>7</sup> <https://norecopa.no/3r-guide/eu3rnet>

<sup>8</sup> <https://norecopa.no/COST>

<sup>9</sup> <https://www.aaalac.org>

## What has the money been used for?

The diagram below shows a rough outline of Norecopa's income for 2023 was divided among its various work tasks.



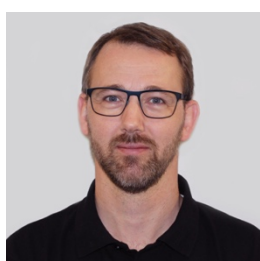
Norecopa had one employee in 2023:

Adrian Smith as Norecopa's Secretary, employed in a full-time position. Norecopa paid Elisabeth Pagels on an hourly basis to update the NORINA database<sup>10</sup>.

Less than 2% of Norecopa's income was used for office expenses and the organisation's administration, including for legal and consultancy fees.

The accounts are described in greater detail in the Appendix.

Oslo, April 2024



Chris Noble  
(Chair of the Board)

Rolf Hetlelid Olsen  
(Board Member)

Janette Maria Carlsen  
(Board Member)

Anton Krag  
(Board Member)

<sup>10</sup> <https://norecopa.no/NORINA>



Adrian Smith (Secretary)

# Appendix

## 1) About the organisation

### Norecopa's structure and goals

Norecopa is an independent member organisation, with a Board that represents four major stakeholders in animal research and testing:

- regulators
- academia
- industry
- animal welfare organisations

Norecopa is registered in the Brønnøysund Register Centre with its own statutes<sup>11</sup>, and its Annual General Meeting as its supreme governing body<sup>12</sup>.

Moreover, Norecopa is a member of the European umbrella organisation for National Consensus Platforms, *ecopa (European Consensus Platform on Alternatives)*<sup>13</sup>. Adrian Smith became Board Member of *ecopa* on 8 December 2022.

Norecopa has an Activity Plan<sup>14</sup> which is approved at its Annual General Meetings.

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<sup>11</sup> <https://norecopa.no/vedtekter>

<sup>12</sup> <https://norecopa.no/no/om-norecopa/aarsmoeter>

<sup>13</sup> <http://www.ecopa.eu>

<sup>14</sup> <https://norecopa.no/aktivitetsplan>

## Norecopa's Board and Annual General Meeting

The 2023 Meeting was held as a hybrid meeting from Bergen on 12 June. There were 19 participants in Bergen and 11 participants via the web. The Annual Report and accounts for 2022, as well as the budget proposal for 2023 and the proposal for the membership fees (no changes since 2021) were all adopted.

Until the Annual General Meeting in 2024 the Board consists of the following:

Chris Noble, Nofima Tromsø, (Board Chair)\*

deputy: Siri Kristine Gåsnes, Norwegian Veterinary Institute\*

Birgitte Fineid, Norwegian Society for Protection of Animals\*\*

deputy: Anton Krag, Norwegian Animal Protection Alliance\*\*

Rolf Hetlelid Olsen\*

deputy: Hogne Bleie, Mallard AS\*

Janette Maria Carlsen, Norwegian Veterinary Institute\*\*

deputy: Gunvor Knudsen, Norwegian Food Safety Authority\*\*

*\*elected until 2024 \*\*elected until 2026*

Deputy Board Member Siri Kristine Gåsnes was on leave from January to May 2023. Ingunn Sommerset, who has the same workplace (the Norwegian Veterinary Institute), acted as her deputy.

Anton Krag stepped in as full member of the Board at the end of 2023 since Birgitte Fineid was on leave.

At the Annual General Meeting, the Head of the Board reviewed Norecopa's Activity Plan, which was last amended in 2021 and is valid until 2025. No comments were made.

All members of the Election Committee agreed to continue in their roles until the next election in 2024:

Regulators: Vera Klafstad Rodas, Norwegian Food Safety Authority

Academia: Hege Løkslett, NINA

Industry: Renate Johansen, PHARMAQ Analytiq

Animal welfare: Live Kleveland, Norwegian Animal Protection Alliance

Norecopa's 3R Award Committee consisted of the following in 2023:

Regulators: Bjørn Groven, Norwegian Food Safety Authority

Academia: Adam Lilicrap, NIVA

Industry: Marie Løvoll, VESO

Animal welfare: Torill Malmstrøm, Dyreetikk.no

All the documents and minutes from the Annual General Meeting are available on Norecopa's website<sup>15</sup>.

Three Board Meetings were held in 2023: on 11 January, 20 June and 7 September. The minutes are available on Norecopa's website<sup>16</sup>.

### **The Secretariat**

Norecopa's secretariat is affiliated to the Norwegian Veterinary Institute, which therefore has responsibility for Norecopa's personnel and accounts. The Secretary receives office support from the Institute's Administration, among other things in connection with accounting and issue of invoices.

Adrian Smith has been permanently employed as Norecopa's Secretary since 2008. This was initially a 50% position. In consultation with Norecopa's Board of Directors, he has a permanent home office employment contract with the Norwegian Veterinary Institute. Thanks to a resolution passed by the Norwegian Parliament during the budgetary debate in December 2021, he worked in a full-time (100%) position in 2022 and in August 2023 he was given a permanent full-time position (with effect from 1 January 2023) by the Norwegian Veterinary Institute. In September 2023 he applied for an extension of his contract past the age of 70 (which he reaches in January 2025), until 31 December 2027. The application was turned down and considerations are being made regarding the impact of this decision upon Norecopa in the coming years.

### **Occupational safety and health, equality and environmental impact**

In 2023, Norecopa had one male employee in a full-time position employed as per a home office employment contract with the Norwegian Veterinary Institute. Norecopa's Board has consisted of two men and two women during the whole of 2023. No employee injuries or accidents were recorded during the reporting year, nor were there any occupational safety and health complaints filed. Norecopa's operations do not include work tasks that can exert material detrimental impact on the environment.

### **Norecopa's members**

At the end of 2023, 40 institutions or departments were full members of Norecopa, and 18 private persons were associate members. This is the same number of institutions and two people more than the previous year. Almost all major research institutions in Norway are

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<sup>15</sup> <https://norecopa.no/about-norecopa/annual-meetings>

<sup>16</sup> <https://norecopa.no/styrereferater>

members of Norecopa. No increases in membership fees were adopted during the reporting year. The membership fee for institutions or departments is NOK 2,000 and NOK 200 for private persons. Thus, fees for private persons have remained unchanged since Norecopa was founded in 2007, while institutional fees have not changed since 2018.

## **2) Finances**

### **2023 accounts**

Norecopa's core funding comes from the Norwegian Ministry of Agriculture and Food, in cooperation with the Norwegian Ministry of Trade, Industry and Fisheries. It is provided as a grant for administrative aid (*forvaltningsstøtte*), as part of the subsidy allocated to the Norwegian Veterinary Institute. In December 2021, the Norwegian Parliament voted to allocate a 100% position to Norecopa's Secretariat for 2022, and since then the Norwegian Veterinary Institute, where the Secretary is employed, has allocated funds for this position. This is run by the Institute as a project, which means that the cost of the secretarial position stood at NOK 1,689,775 in 2023, a slight decrease from NOK 1,696,780 in 2022. This amount covers not only the Secretary's salary, but also the Institute's overhead for the position.

In addition to covering this cost, the Norwegian Veterinary Institute allocated NOK 500,000 directly to Norecopa as a contribution towards its scientific activities. The rest of Norecopa's activities funded via the Norwegian Veterinary Institute's accounts were financed by membership fees, to the amount of NOK 79,400 in 2023 and donations from the RSPCA, UK (NOK 26,000), Scanbur (NOK 25,000) and Aivero AS (NOK 5,000). The accounts for 2022 showed a deficit of NOK 12,088, but after revision of the accounts by Norecopa's auditor this amount was changed by the Veterinary Institute to a deficit of NOK 25,868, which was carried over to Norecopa's budget for 2023.

Norecopa also has an external bank account with Sparebanken Sør. The account is used for donations that Norecopa receives from external sources and for paying Elisabeth Pagels, who maintains the NORINA and TextBase databases. This account is monitored by an independent accounting firm (SALDO Regnskap, Risør). In 2023, the Nordic Society Against Painful Experiments on Animals (NSMSD)<sup>17</sup> donated a total of NOK 250,000 to this account, and the amount can be used freely by Norecopa. At year-end, the balance in the account stood at NOK 335,769.

Norecopa's full accounts were audited by Norecopa's auditor, Jon Li Tjørsvaag, at the level of supporting documents, and the audit report is available on Norecopa's website<sup>18</sup>. Norecopa's

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<sup>17</sup> <http://www.nsmsd.no>

<sup>18</sup> <https://norecopa.no/media/ktoaajih/revident-regnskap-2022.pdf>

funding allocated by the Parliament is part of the Norwegian Veterinary Institute's accounts, which means that it is subject to the oversight of the Office of the General Auditor of Norway. The necessary conditions for the going concern of Norecopa are present.

### Regnskap og budsjett, Norecopa

	Regnskap 2023	Budsjett 2023	Regnskap 2022
<b>Utgifter</b>			
1 Deltagelse på ecopas årsmøte	0,00		6,00
<b>Drift av sekretariatet</b>			
2 Driftens utgifter til sekretariatet (Adrian Smith)	1 689 775,00	1 696 300,00	1 696 780,00
3 Driftens utgifter til konsulent	6 619,20	3 000,00	1 788,80
4 Kontingentsutgifter	18 954,83	18 415,00	48 030,01
4a Kassekostnader	7 819,74	8 410,00	8 606,04
4b Kjøp og oppfølging av datamaskin og programvare	11 144,20	10 000,00	31 421,07
<b>Trykningsutgifter</b>			
5 Materiale til årsrapport		10 000,00	3 573,00
6 Øvrig informasjonsmateriale	17 602,84	10 000,00	7 591,44
7 Medlemsavgift ecopa	1 790,04	1 156,00	1 542,00
8 Faglige møter og reiser	130 380,98	130 000,00	125 810,00
<b>Nettsider</b>			
9 Lisiser og supportavtaler	153 942,89	130 000,00	122 590,91
10 Videreutvikling og reparasjoner av nettsidene	157 662,50	250 000,00	213 585,00
11 Domenerregistrering	9 086,00	8 000,00	6 500,00
<b>Styremøter, årsmøte, høringer</b>			
12 Årsmøte (deltakerkostnader og Norecopa personale)	5 757,11	6 000,00	1 611,58
13 Høringer og spørsmål	0,00	6 000,00	1 611,58
14 Annet årlig møte (hvis det er mulig å avregne det)	18 292,00	0,00	0,00
<b>Øvrig faglig aktivitet</b>			
15 Lønning av DR jobb	30 459,00	31 000,00	30 267,50
16 Annet faglig arbeid	26 284,15	0,00	39 987,50
16a Fiskeris-Dag		0,00	
16b PREPARE for åretsrapport (2022: juleavstemning)		60,00	
16c Øvrige utgifter (2022: AGRIST; 2023: AALAC+relat rapport)	26 284,15	0,00	39 987,50
17 Oppdatering av NORINA		0,00	
18 ENRICH+Fin		300,00	
19 Oppdatering av nettsidene	lagt til pkt. 10 ovenfor	lagt til pkt. 10 ovenfor	lagt til pkt. 10 ovenfor
20 PREPARE		10 000,00	18 181,10
21 Kassekostnader		0,00	
22 Sum utgifter uten midlene til administrasjonen	576 190,65	612 912,00	602 637,22
23 Reduksjoner i lønningene med tilfelle foredrag ikke bokført ovenfor	-30 463,25		
<b>Sum utgifter</b>	<b>2 245 582,48</b>	<b>2 309 262,00</b>	<b>2 298 817,22</b>
<b>Inntekter</b>			
22 Tildelinger	-2 189 775,00	-2 196 350,00	-2 186 780,00
23 Memorkompassagen	0,00	0,00	0,00
24 Tilskudd fra Statens KAL/SA/Øyetsvaskytilskudds Faglig Samarbeid	0,00	0,00	0,00
25 Tilskudd fra Nordisk Samfunn	0,00	0,00	0,00
26 ESR/CR/FA	0,00	0,00	0,00
27 Norsk Helse- + NSMAD + SAE-LAL+USDA+GFAW+ Rabona+Beneff+Sci	-90 000,00	0,00	0,00
28 PREPARE	0,00	0,00	0,00
29 Medlemsavgift, fullt medlemskap	-74 000,00	-120 000,00	-82 000,00
30 Medlemsavgift, assosiert medlemskap	-3 460,00	-5 000,00	-3 200,00
31 Resultatet fra året før	20 868,00	12 000,00	-6 740,00
<b>Sum inntekter</b>	<b>-2 297 367,00</b>	<b>-2 309 262,00</b>	<b>-2 298 720,00</b>
<b>Resultat</b>	<b>51 744,68</b>	<b>0,00</b>	<b>-12 088,22</b>

#### Donorkonto

I tillegg til disse midlene opprettet Norecopa i 2019 en konto i Sparebanken Sør. Kontoen brukes til å ta i mot donasjoner, honorarer o.l. til Norecopa.

Ved inngangen til 2023 var det følgende beløp på kontoen:

- 1) 168 935 kr til oppdatering av NORINA-databasen
- 2) 100 000 kr fra Dyrevelferdsens Forskningsfond
- 3) 15 200 kr fra diverse kilder
- 4) 197 908 kr (100.000 i donasjon fra Nordisk Samfunn Mot Smertevoldende Dyreforsk samt forelesningshonorarer fra Karolinska Institutet og Göteborgs Universitet) til sammen 391 643 kr

Ved utgangen av 2023 var det følgende beløp på kontoen:

- 1) 100 473 kr til oppdatering av NORINA-databasen
- 2) 100 000 kr fra Dyrevelferdsens Forskningsfond
- 3) 90 465 kr fra diverse kilder
- 4) 44 831 i refusjon av medgått tid til forskningsprosjektet Welfare Severity

Forskjellen i resultat fra 2022 mellom Budsjett og Regnskap for 2023 skyldes en interntjustering gjort av Veterinærinstituttet etter revisjon av Norecopas 2022-regnskap

Erklæring for regnskapet til Norecopa for 2023

Jeg har gjennomgått regnskapet til Norecopa for 2023 og har ikke funnet noe å utsette på det oppsatte regnskapet.

Gule 26. mars 2024

  
Jon Li Tjømsvåg



In Norecopa's experience, it is extremely difficult to run the organisation effectively with the 50% position that was originally covered by the Ministry's grant when Norecopa was founded. The fact that Norecopa had a full-time secretarial position and NOK 500,000 for operating costs in 2023 gave the organisation the necessary leeway for achieving the milestones described in the first part of this Report.

### **Overview of external funding in 2023**

1. Norecopa's agreement with the Nordic Society Against Painful Animal Experiments<sup>19</sup> (NSMSD) for financing of the work on further developing the NORINA database<sup>20</sup> expired in 2020, but the Society continues to donate considerable amounts to Norecopa. In 2023 this amounted to a total of NOK 250,000. The funds were deposited in the donor account and are used to pay the fees of Elisabeth Pagels, who updates the NORINA and TextBase databases.
2. In 2023, Norecopa applied for funding from the Research and Development Fund of the Norwegian Animal Protection Alliance<sup>21</sup> in order to continue its analysis of the statistics concerning the use of animals in research and testing in Norway. The Fund granted Norecopa's application for NOK 100,000. The funds were deposited in the donor account at the end of the year and will be used in early 2024 when a colleague from the Swiss 3R Center is available.
3. Norecopa's members contributed a total of NOK 79,400 in membership fees, a reduction of NOK 2,800 compared to 2022.
4. Norecopa's Secretary also received the amount of NOK 3,300 in fees for web-based lectures (in Germany and Sweden, respectively). This money was also deposited into the donor account.

Norecopa is extremely grateful for all of this aid.

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<sup>19</sup> <http://www.nsmsd.no>

<sup>20</sup> <https://norecopa.no/NORINA>

<sup>21</sup> <https://dyrevern.no/dyrevern/the-norwegian-animal-protection-fund>

### **3) Activities designed to further Norecopa's goals**

#### **Network of European 3R centres**

Norecopa participates in a network of European 3R centres, referred to as *EU3Rnet*<sup>22</sup>, which was established in 2019. EU3Rnet runs a COST Action<sup>23</sup>, called IMPROVE<sup>24</sup>, which is meant to finance the building of the network of 3R centres in Europe. The action group held its first meeting on 21 October 2022.

#### **PREPARE guidelines for planning animal research and testing**

In 2023, the PREPARE checklist was translated into one further language, Serbian. By the end of the year, the PREPARE checklist was therefore available in a total of 35 languages. Norecopa thanks its colleagues in these countries for their invaluable help with the translations.

The original article about PREPARE has now been read and/or downloaded from the journal website more than 33,000 times from its publication in 2017<sup>25</sup> and until the end of 2023, of which approx. 5,000 times during the reporting year.

PREPARE is also mentioned in the annual report of *Concordat on Openness on Animal Research*<sup>26</sup> for 2022. This is a statement signed by more than 120 research institutions in the UK. The annual report states that 80 of the institutions that signed the declaration recognise and support PREPARE. 46 institutions further announced that they were using PREPARE to support the ARRIVE guidelines for reporting animal testing. In addition, 19 research institutions have drawn up routines to ensure that the guidelines are followed by their researchers.

#### **Presentations of Norecopa's resources at scientific meetings**

Norecopa's Secretary held the following presentations in 2023:

1. *PREPARE and ARRIVE: How can we improve both our scientific output and animal welfare?*<sup>27</sup> Invited lecture at Karolinska Institutet, 27 January

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<sup>22</sup> <https://norecopa.no/3r-guide/eu3rnet>

<sup>23</sup> <https://www.cost.eu/about/about-cost>

<sup>24</sup> <https://www.cost.eu/actions/CA21139>

<sup>25</sup> <https://journals.sagepub.com/doi/metrics/10.1177/0023677217724823>

<sup>26</sup> <https://concordatopenness.org.uk/wp-content/uploads/2022/12/Concordat-on-Openness-Annual-Report-2022.pdf>

<sup>27</sup> <https://norecopa.no/270123>

2. Practical online demonstration of Norecopa's refined scruffing technique for rodents<sup>28</sup>, to technicians at a European University, 2 February
3. *PREPARE guidelines: How to Plan Experiments from Day One*<sup>29</sup>. Invited lecture at the FGB conference on The multifaced universe of alternative methods in the day-to-day experimental work, 1 March
4. *The PREPARE guidelines: for better science*<sup>30</sup>. Invited lecture at the FRAME Training School, Bergen, 29 March\*
5. *Norway's National Consensus Platform for the Three Rs: Replacement, Reduction and Refinement and a source of global 3R resources*<sup>31</sup>. Invited lecture at the Scand-LAS symposium, Uppsala, 25 April\*
6. *Models and simulators that can replace use of live animals in education*<sup>32</sup>. Invited lecture at the Scand-LAS symposium, Uppsala, 26 April\*
7. *PREPARE for Better Science: Guidelines for animal Research and Testing*<sup>33</sup>. Invited lecture for the DR.MGR Educational and Research Institute, Chennai, 3 May
8. *The PREPARE and ARRIVE guidelines: PREPARE for Better Science*<sup>34</sup>. Invited lecture at Karolinska Institutet, Stockholm, 11 May
9. *Norecopa og arbeidet med å redusere Norges forbruk av forsøksdyr*<sup>35</sup>. Invited lecture for the Norwegian Radium Hospital, 9 June\*
10. *PREPARE for Better Science: Guidelines for animal research and teaching*<sup>36</sup>. Invited lecture at 3rd joint SLAS-CroLASA meeting, Ljubljana, 15 June\*
11. *Norecopa and the 3Rs*<sup>37</sup>. Invited lecture for the Medical Research Council, UK, 20 July
12. *Norecopa: A one-stop-shop for global 3R resources*<sup>38</sup>. World Congress on Alternatives and Animal Use in the Life Sciences, Niagara Falls, 28 August\*
13. *The Path to Better Science: 3Rs and more*<sup>39</sup>. World Congress on Alternatives and Animal Use in the Life Sciences, Niagara Falls, 29 August\*
14. *Reduction og replacement: Hva skjer innen alternativer til dyreforsøk?*<sup>40</sup> Invited lecture for the University of Oslo, 18 October\*
15. *What can we do to advance the 3Rs in preclinical studies?*<sup>41</sup> Invited lecture at the 6th International Preclinical Imaging Symposium, Tehran, 8 November\*

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<sup>28</sup> <https://norecopa.no/scruff>

<sup>29</sup> <https://norecopa.no/FGB>

<sup>30</sup> <https://norecopa.no/290323>

<sup>31</sup> <https://norecopa.no/ScandLAS2023>

<sup>32</sup> <https://norecopa.no/Uppsala>

<sup>33</sup> <https://norecopa.no/030523>

<sup>34</sup> <https://norecopa.no/110523>

<sup>35</sup> <https://norecopa.no/090623>

<sup>36</sup> <https://norecopa.no/Ljubljana>

<sup>37</sup> <https://norecopa.no/MRC>

<sup>38</sup> <https://norecopa.no/WC12>

<sup>39</sup> <https://norecopa.no/path>

<sup>40</sup> <https://norecopa.no/KPM>

<sup>41</sup> <https://norecopa.no/TPIS2023>

16. *PREPARE for Better Science: The PREPARE and ARRIVE guidelines*<sup>42</sup>. Invited lecture at Karolinska Institute, Stockholm, 16 November\*
17. *PREPARE for Better Science: the PREPARE and ARRIVE guidelines*, Nordic Zebrafish Network inaugural meeting, Stockholm, 17 November\*
18. *How to use the 3Rs to plan for better Science*<sup>43</sup>. Invited lecture at the 6th International Conference of SAAE-India, 20 November
19. *Improving Our Scientific Output and Animal Welfare? the PREPARE Guidelines for Planning Animal Studies*<sup>44</sup>. Invited lecture on the University of Nottingham/FRAME course for early career researchers, 28 November

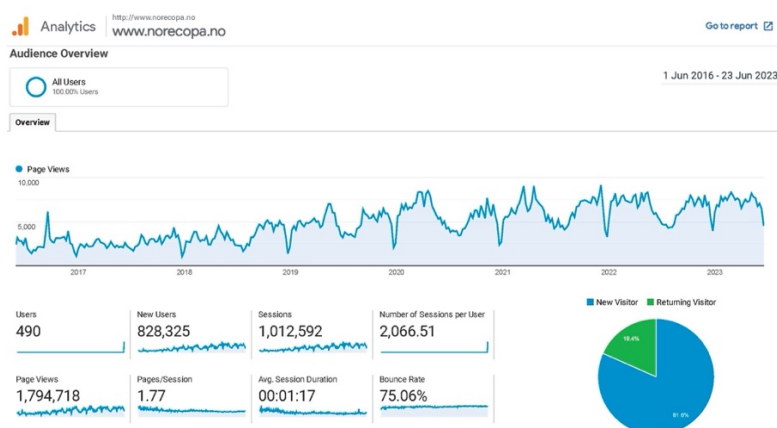
Apart from meetings marked with an asterisk (\*), participation in meetings was online.

### Further development of Norecopa's website

Norecopa has had its own website, <https://norecopa.no>, since February 2008. In addition, the suffices .info, .com, .eu, .net, .org og .cn are registered for the domain name.

Norecopa has engaged Bitfarm to maintain and develop the website. Norecopa has an operating and maintenance agreement with the company, and has spent considerable time and resources in 2023 on technical upgrades and backup routines. The company Webhuset is used to register Norecopa's domains, and Getonnet provides the software for a discussion forum run by Norecopa (see below).

In June 2023 Norecopa replaced Google Analytics with another program for analysis of site users, Matomo. This makes it difficult to compare site use in 2023 with previous years. The statistics from Google Analytics, from the launch of the present website on 1 June 2016 until June 2023 are presented here:



<sup>42</sup> <https://norecopa.no/161123>

<sup>43</sup> <https://norecopa.no/SAAE-I>

<sup>44</sup> <https://norecopa.no/281123>

In 2022 the website had 343,754 visits from 186,372 unique users, who represented most countries in the world. In 2023 the figures are less reliable, because of the change from Google to Matomo, but the corresponding figures are in the order of 350,000 visits for the year and 220,000 users.

Norecopa's website contains several databases. These include NORINA<sup>45</sup>, which holds information on products that can replace or supplement the use of animals in education and training, and TextBase<sup>46</sup>, which contains information on literature within laboratory animal science. In 2023, the Nordic Society Against Painful Experiments on Animals (NSMSD) continued to fund the work on maintaining and further developing these databases. Most of the work on updating NORINA and TextBase in 2023 was done by Elisabeth Pagels (employed by Bitfarm, Kristiansand). The work this year largely consisted of deleting information about old products that are no longer available and adding information about new products. Thus, the total number of entries in the databases is a product of these two processes. At the end of 2023, NORINA contained information about approx. 3,000 products, whereas TextBase had some 1,500 entries. These net figures are slightly higher than those in 2022.

In addition to the website, Norecopa runs a closed discussion forum by email for those with special responsibility for the country's animal research facilities. As of today's date, this forum is the only channel whereby this group can discuss matters of common interest. In 2023, the forum had 45 members, the same as in 2022.

Norecopa continues to fund the operation of the website of the ENRICH Fish project<sup>47</sup>, which was officially ended in 2017.

### **Further development of Norecopa's Refinement Wiki**

In collaboration with colleagues in Norway and abroad, Norecopa has greatly expanded its user-managed website (*Refinement Wiki*, [wiki.norecopa.no](http://wiki.norecopa.no)) that was launched in 2020. At the end of 2023, there were 71 topics in the Wiki.

### **Norecopa's 3R prize**

Norecopa received 3 nominations for its 3R prize<sup>48</sup> in 2023. The prize, which consists of NOK 30,000 and a diploma, was awarded for the 12th time, after the Annual General Meeting held on 12 June. The winner was Linda Andersen at the Industrial and Aquatic Laboratory (Stiftelsen ILAB) in Bergen, for her long-standing work within health and welfare of research

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<sup>45</sup> <https://norecopa.no/norina-database>

<sup>46</sup> <https://norecopa.no/textbase-database>

<sup>47</sup> <https://norecopa.no/fish/projects/enrich-fish>

<sup>48</sup> <https://norecopa.no/about-norecopa/3r-prize>

animals, in particular fish. Presentations of the nominees<sup>49</sup> and the winners' lecture<sup>50</sup> can be found on Norecopa's website.



Linda Andersen, winner of the 3R Prize for 2023, receives the diploma from Norecopa's Secretary  
photo: Norecopa

## Contact meetings

### The Parliament and the Ministries

Norecopa's Secretary participated as usual in the annual budgetary hearing on 17 October organised by the Standing Parliamentary Committee on Business and Industry (*Næringskomitéen*), and presented Norecopa's views on the budget for 2024 (speech<sup>51</sup> and written statement<sup>52</sup>, in Norwegian).



<sup>49</sup> <https://norecopa.no/media/xgipyzev/3r-prisutdeling-2023.pdf>

<sup>50</sup> <https://norecopa.no/media/elkhv4tz/linda-andersen-120623.pdf>

<sup>51</sup> <https://norecopa.no/media/3bvdozvt/innsjell-til-naeringskomiteen-171023.pdf>

<sup>52</sup> <https://norecopa.no/media/5vslb0t/norecopa-notat-naeringskomiteen-2023.pdf>



It is this Committee that deals with the budget chapter for the Norwegian Veterinary Institute, which is where the government subsidy to Norecopa comes from.

### ***Work to establish a physical 3R centre in Norway***

Norecopa continues to liaise with Members of Parliament and staff at the relevant Ministries to increase awareness of the need for a larger, physical 3R centre in Norway. On 10 October Norecopa delivered a 21-page document to the Ministry of Agriculture and Food and the Ministry of Trade, Industry and Fisheries<sup>53</sup>.

The MDG Party presented a private motion in 2023 to establish such a Centre (photo), based upon models from Sweden and other European countries<sup>54</sup>. The motion was handled by the Standing Parliamentary Committee on Business and Industry (*Næringskomitéen*), who invited interested parties to submit written comments. Over 40 submissions were received, all positive to the motion<sup>55</sup>. The Committee<sup>56</sup> and the debate that followed in Parliament<sup>57</sup>, concluded, however, to reject the motion, on the grounds that the Government plan to discuss this in connection with the Report on Animal Welfare which they plan to present in 2024.



More information about these events is available in Norwegian on Norecopa's website<sup>58</sup>.

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<sup>53</sup> <https://norecopa.no/media/xwhj14y2/notat-nfd-om-3r-senter-101023.pdf>

<sup>54</sup> <https://www.stortinget.no/no/Saker-og-publikasjoner/Publikasjoner/Representantforslag/2023-2024/dok8-202324-020s>

<sup>55</sup> <https://www.stortinget.no/no/Hva-skjer-pa-Stortinget/Horing/horing/?h=10004977>

<sup>56</sup> <https://www.stortinget.no/no/Saker-og-publikasjoner/Publikasjoner/Innstillinger/Stortinget/2023-2024/inns-202324-098s>

<sup>57</sup> <https://www.stortinget.no/no/Saker-og-publikasjoner/Publikasjoner/Referater/Stortinget/2023-2024/refs-202324-12-08?m=9>

<sup>58</sup> <https://norecopa.no/no/om-norecopa/politisk-aktivitet>



## **The Norwegian National Experimental Animals Committee**

Norecopa's Secretary has had sporadic contact with the National Committee for the Protection of Animals used for Scientific Purposes during the year, in order to discuss matters of common interest. He attended the Committee's meeting for Animal Welfare Organisations in Oslo on 23 November.

## **Projects funded by the Norwegian Research Council**

Norecopa's Secretary is taking part in two projects funded by the Norwegian Research Council:

- A project led by the Institute of Marine Research and titled WELFARE SEVERITY (Frameworks for classifying the welfare of farmed Atlantic salmon based upon the principles of severity assessment)<sup>59</sup>
- A project led by the Norwegian Institute for Water Research (NIVA) titled SPHERTOX (Hepatic 3D spheroids: the next generation of testing in toxicology)<sup>60</sup>

## **Other activities during 2023**

Norecopa's Secretary has:

1. participated in the International Culture of Care Network, which was established after the FELASA congress in June 2016. He also maintains the website of the Network on Norecopa's platform ([norecopa.no/coc](http://norecopa.no/coc)).
2. been a Board Member of *ecopa* since 8 December 2022. During the reporting year, he has also assisted with the website of the organisation.

## **Norecopa's publications during 2023**

### **Newsletters**

Norecopa's Secretary published seven electronic newsletters in English for Norecopa's members as well as other interested parties. All of these are archived on Norecopa's website<sup>61</sup> and their content is searchable, which increases their value. The number of subscribers increased by 10% in 2023: from 1,287 subscribers to the first newsletter on 21 February to 1,421 subscribers to the last newsletter on 21 December.

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<sup>59</sup> <https://norecopa.no/species/fish/projects/severity-assessment-and-salmon-welfare>

<sup>60</sup> <https://norecopa.no/species/fish/projects/sphertox>

<sup>61</sup> <https://norecopa.no/news/newsletters>



### Scientific papers

Norecopa's Secretary was co-author of the following scientific papers published in 2023:

1. Fausak E, Funaro MC, Kepsel AC, Eldermire ERB, Foster M, Mears K, Crews ME, Brennan M, Currie GL, LaFollette MR, O'Connor A, **Smith AJ**, Wever KE & Fricke S (2023): Systematic reviews of animal studies - Report of an international symposium. *Veterinary Evidence*, 8(3).<sup>62</sup>
2. Janssens M, Gaillard S, de Haan JJ, de Leeuw W, Brooke M, Burke M, Flores J, Kruijen I, Menon JML, **Smith A**, Tiebosch IACW & Weijdema F (2023): How open science can support the 3Rs and improve animal research. *Research Ideas and Outcomes* 9:e105198.<sup>63</sup>
3. Naik N, Vadloori B, Poosala S, Srivastava Pratima, Coecke S, **Smith AJ**, Akhtar A, Clive R, Radhakrishnan S, Bhyravbhatla B, Damle M, Pulla VK, Hackethal J, Horland R, Li AP, Pati F, Singh MS, Occhetta P, Bisht R, Dandekar P, Bhagavatula K, Pajkrt D, Johnson M, Weber T, Huang J, Hysenaj L, Mallar B, Ramray B, Dixit S, Joshi S & Kulkarni M (2023): Advances in Animal Models and Cutting-Edge Research in Alternatives: Proceedings of the Third International Conference on 3Rs Research and Progress, Vishakhapatnam, 2022. *Alternatives to Laboratory Animals* 2023. doi:10.1177/02611929231180428.<sup>64</sup>
4. **Smith AJ** (2023): Norecopa: A global knowledge base of resources for improving animal research and teaching. *Frontiers in Veterinary Science*, 10.<sup>65</sup>
5. **Smith AJ** (2023): Bruk av forsøksdyr i Norge fra 2018 til 2021. En analyse. Norsk veterinærtidsskrift nr. 5, 135, 302-309.<sup>66</sup>

<sup>62</sup> <https://doi.org/10.18849/ve.v8i3.653>

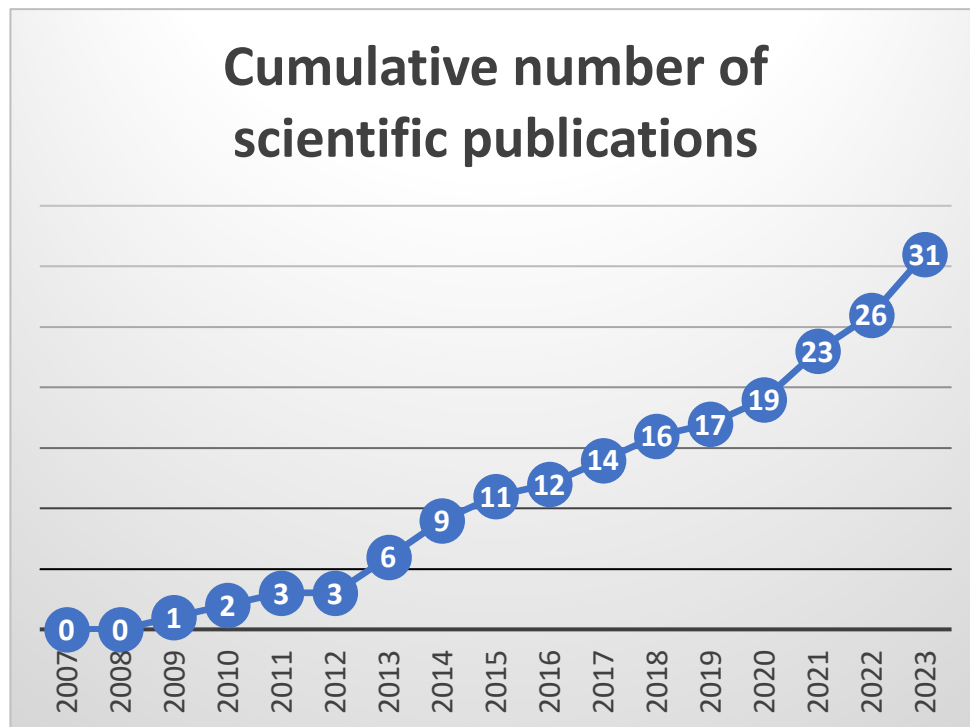
<sup>63</sup> <https://riojournal.com/article/105198>

<sup>64</sup> <https://journals.sagepub.com/doi/full/10.1177/02611929231180428>

<sup>65</sup> <https://www.frontiersin.org/articles/10.3389/fvets.2023.1119923>

<sup>66</sup> [https://nvt.vetnett.no/journal/2023/5/m-285/Bruk\\_av\\_forsoksdyr\\_i\\_Norge\\_fra\\_2018\\_til\\_2021](https://nvt.vetnett.no/journal/2023/5/m-285/Bruk_av_forsoksdyr_i_Norge_fra_2018_til_2021)

A chapter on the 3Rs, co-authored with Dr. Jon Richmond from the UK, for the next edition of UFAW's textbook *Handbook on the Care and Management of Laboratory and Other Research Animals*<sup>67</sup> was due to be published in the Spring of 2023, but was delayed until the Spring of 2024.



### Opinion pieces and other articles

Adrian Smith was interviewed for an article published by Dyrebeskyttelsen Norge on 24 April 2023 entitled *Er det behov for et 3R-senter for å forbedre dyreforsøk i Norge?*<sup>68</sup>

### Norecopa and social media

Norecopa has a brochure describing the organisation and its activities. This can be downloaded as pdf files in English<sup>69</sup> and Norwegian<sup>70</sup> and can be used freely.

<sup>67</sup> <https://www.ufaw.org.uk/animal-welfare-publications/the-ufaw-handbook-on-the-care-and-management-of-laboratory-and-other-research-animals>

<sup>68</sup> <https://www.dyrebeskyttelsen.no/2023/04/24/er-det-behov-for-et-3r-senter-for-a-forbedre-dyreforsok-i-norge>

<sup>69</sup> <https://norecopa.no/media/cpgprhp5/norecopa-brochure.pdf>

<sup>70</sup> <https://norecopa.no/media/p0jhcurq/norecopa-brosjyre.pdf>

Norecopa works with all research species

Norecopa's administration is affiliated to the Norwegian Veterinary Institute, but Norecopa is an independent member organisation with its own Board that represents four stakeholders:

- Regulators
- Research
- Industry
- Animal welfare

We issue an English-language newsletter 7-8 times a year about the latest developments within alternatives to animal use in science.

Join us! Individuals and Institutions can be members of Norecopa.

**norecopa**  
PREPARE for Better Science

We work to advance the Three Rs in animal research and testing:

- ✓ Replacement
- ✓ Reduction
- ✓ Refinement

**norecopa.no**

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linkedin.com/company/23545108

Norecopa's staff have had over 30 years' experience of producing databases with resources designed to replace, reduce or refine animal research.

Norecopa also maintains a Refinement Wiki, where others can contribute resources to improve animal research:

**How can we improve animal studies?**

In collaboration with UK experts we have produced guidance for planning studies which might involve animals: **The PREPARE Guidelines**

The checklist in PREPARE is available in over 30 languages:

Norecopa's free website also contains many other resources, including links to over 400 guidelines for planning, conducting and reporting animal research.

For more information, go to **norecopa.no**

Experimental Design and Reproducibility in Preclinical Animal Studies

Norecopa also maintains a Refinement Wiki, where others can contribute resources to improve animal research.

Experimental Design and Reproducibility in Preclinical Animal Studies

For more information, go to **norecopa.no**

## Norecopa in social media

Norecopa does not have sufficient resources to play an active role within social media.

Approximately 760 persons follow Norecopa's Facebook profile.<sup>71</sup>

Norecopa has used Twitter more than Facebook this year. Norecopa's Twitter account (@norecopa)<sup>72</sup> has 1,025 followers. In addition, Adrian Smith has his own Twitter account with 770 followers, where the majority of posts deal with Norecopa.

Norecopa has a LinkedIn page<sup>73</sup>, and the Secretary also posts information about Norecopa on his own LinkedIn page<sup>74</sup>.

<sup>71</sup> <https://www.facebook.com/Norecopa>

<sup>72</sup> <https://twitter.com/norecopa>

<sup>73</sup> <https://www.linkedin.com/company/23545108>

<sup>74</sup> <https://www.linkedin.com/in/adrian-smith-bb567b5a>

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