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# PREPARE



## The PREPARE Guidelines Checklist

Planning Research and Experimental Procedures on Animals: Recommendations for Excellence  
Adrian J. Smith, R. Eddie Cuthbert, Elliot Liley, Kirstine E. Aa. Hansen & Trond Bratberg  
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PREPARE consists of planning guidelines which are complementary to reporting guidelines such as ARRIVE<sup>1</sup>. 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 adapted to meet special needs, such as field studies. PREPARE includes guidance on the management of animal facilities, since in-house experiments are dependent upon their quality. The full version of the guidelines is available on the Norecopa website, with links to global resources, at <https://norecopa.no/PREPARE>. The PREPARE guidelines are a dynamic set which will receive as more species- and situation-specific guidelines are produced, and as best practice within Laboratory Animal Science progresses.

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"/> Decide upon databases and information specialists to be consulted, and construct search terms. <input type="checkbox"/> Assess the relevance of the species to be used, its biology and suitability to answer the experimental questions with the least suffering, and its welfare needs. <input type="checkbox"/> Assess the reproducibility and transferability 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"/> Local relevant guidance documents (e.g. EU 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 the type of research have already been produced. <input type="checkbox"/> Address the 3Rs (replacement, reduction, refinement) and the 3Gs (good science, good sense, good sensibilities). <input type="checkbox"/> Consider pre-registration 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"/> Allocate a severity classification to the project. <input type="checkbox"/> Define objective, easily measurable and unequivocal 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 pilot studies, 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 timelines, 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 approximate timescale for the project, indicating the need for assistance with preparation, animal care, procedures and waste disposal/contamination. <input type="checkbox"/> Discuss and disclose 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 evaluation	<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 times of extra risk.
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 all 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. <input type="checkbox"/> Avoid generation of surplus animals.
11. Quarantine and health monitoring	<input type="checkbox"/> Discuss the animals' likely 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 instincts and needs, in collaboration with expert staff. <input type="checkbox"/> Discuss acclimatisation, 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, sedation and anaesthesia, surgery and other techniques.
14. Humane killing, release, reuse or rehoming	<input type="checkbox"/> Consult relevant legislation and guidelines well 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, Cuthbert RE, Liley E, Hansen KEA & Bratberg T. PREPARE Guidelines for Planning Animal Research and Testing. *Laboratory Animals*, 2017; 20(8): 10.1177/0020717217726823.  
2. Kilkenny C, Browne WJ, Cuthbert R, et al. Improving Biomedical Research Reporting: The ARRIVE Guidelines for Reporting Animal Research. *PLoS Biology*, 2010; 8(10): 113.12717 (journal.pbio.1000842).

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

Norecopa: PREPARE for better Science

# Annual Report for 2022

# Norecopa



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## **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 15 on 10 October 2022. 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 2022?***



Norecopa has, among other things:

1. taken active part in the European 3R network
2. further developed the PREPARE guidelines
3. held 35 presentations in 16 countries
4. produced a major presentation of the 3R concept
5. further developed Norecopa’s website and Refinement Wiki

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

### **Milestone 1: We have taken active part in the European 3R network, EU3Rnet**

Norecopa takes active part in the network of European 3R centres, EU3Rnet<sup>3</sup>, which applied for and was awarded a grant for a “COST<sup>4</sup> Action” titled IMPROVE (“3Rs concepts to improve the quality of biomedical science”).

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

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

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


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

## Milestone 2: We have further developed the PREPARE guidelines

PREPARE is 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 stands for *Planning Research and Experimental Procedures on Animals: Recommendations for Excellence*.

PREPARE consists of a 2-page checklist<sup>5</sup> with 15 main topics, and webpages<sup>6</sup> which explain and expand upon the checklist. The checklist has been translated into 9 additional languages in 2022, so it is now available in a total of 34 languages. The webpages are continuously updated, as new guidelines and relevant scientific discoveries are published.

[norecopa.no/PREPARE/prepare-checklist](https://norecopa.no/PREPARE/prepare-checklist)



**The PREPARE Guidelines Checklist**  
Planning Research and Experimental Procedures on Animals: Recommendations for Excellence


Adrian J. Smith, R. Eddie Cutler, Elliot Leary, Kirsten E. A. Hansen & Trond Brattli<sup>1</sup>  
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PREPARE consists of planning guidelines which are complementary to existing 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
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The topics set out above are addressed in the order in which they are presented here, and some topics overlap. The PREPARE checklist can be adapted to meet special needs, such as field studies. PREPARE includes guidance on the management of animal facilities, since in-house experiments are dependent upon their quality. The full version of the guidelines is available on the Norecopa website, with links to global resources, at <https://norecopa.no/PREPARE>.  
The PREPARE guidelines are a dynamic set which will receive ad hoc updates and situation-specific guidelines are produced, and as best practice within Laboratory Animal Science progresses.

Topic	Recommendations
<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"/> Decide upon databases and information specialists to be consulted, and construct search terms. <input type="checkbox"/> Assess the relevance of the species to be used, its biology and suitability to answer the experimental questions with the least suffering, and its welfare needs. <input type="checkbox"/> Assess the responsibility and transparency 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. EU guidance on project evaluation).
3. Ethical issues, human health 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 3Gs (good science, good sense, good animals). <input type="checkbox"/> Consider pre registration 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"/> Assign 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 pilot studies, 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 timelines, staffing 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 approximate timescale for the project, indicating the need for assistance with preparation, animal care, procedures and needs deployment/contamination. <input type="checkbox"/> Discuss and disclose 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 evaluation	<input type="checkbox"/> Conduct a physical inspection of the facilities, to evaluate building and equipment standards and needs. <input type="checkbox"/> Discuss staffing levels in terms of extra risk.
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 record any produce, specific guidance for all stages of the project. <input type="checkbox"/> Discuss means for containment, decontamination, and disposal of all 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. <input type="checkbox"/> Avoid generation of surplus animals.
11. Quarantine and health monitoring	<input type="checkbox"/> Discuss the animals' likely 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 instincts and needs, in collaboration with expert staff. <input type="checkbox"/> Discuss acclimatisation, 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 returning. <input type="checkbox"/> Develop refined procedures for substance administration, sampling, sedation and anaesthesia, surgery and other techniques.
14. Humane killing, release, reuse or rehoming	<input type="checkbox"/> Consult relevant legislation and guidelines with 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.

Norecopa: PREPARE for better Science

In 2022 Norecopa has also produced two electronic versions of the PREPARE checklist, which makes it easier for scientists and animal facility personnel to operationalise the content:

1. a Word file<sup>7</sup> that can be filled in with text about specific experiments and then stored in a secure location, as decided by the research team

<sup>5</sup> <https://norecopa.no/PREPARE/prepare-checklist>

<sup>6</sup> <https://norecopa.no/PREPARE>

<sup>7</sup> <https://norecopa.no/PREPARE-Word>

4

2. a web-based version<sup>8</sup>, uniquely generated for each research team. For security reasons, text in checklist fields is stored locally on the researcher's computer, but everyone on the team can access the web version and see the fields their colleagues have worked on.

### **Milestone 3: We held 35 presentations in 16 countries**

In 2022, Norecopa's resources were presented in the following countries:

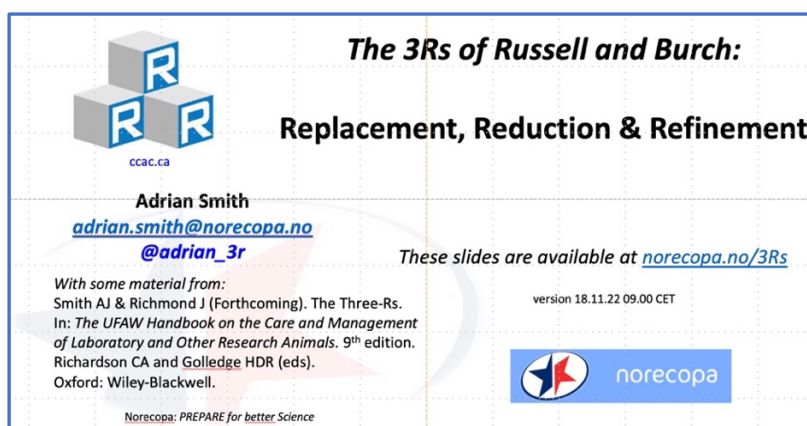
*Australia, Austria, Belgium, Croatia, Denmark, Finland, France, India, Italy, the Netherlands, Nigeria, Norway, Portugal, Sweden, the United Kingdom and the USA*

Out of 35 presentations, 33 took the form of lectures (whereof 30 were invited lectures) and 2 the form of posters. You can find an overview of the presentations in the Appendix.

### **Milestone 4: We produced a major presentation of the 3R concept**

Norecopa prepared 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.

The presentation shows, among other things, how today's definitions of 3R have changed in relation to Russell and Burch's original definitions. This may have consequences, in particular, for those working within the framework of EU legislation where, for example, procedures that they would refer to as *Partial Replacement* are considered to be Refinement by the EU. The Gircor organisation has prepared a description of the presentation in French<sup>9</sup>.



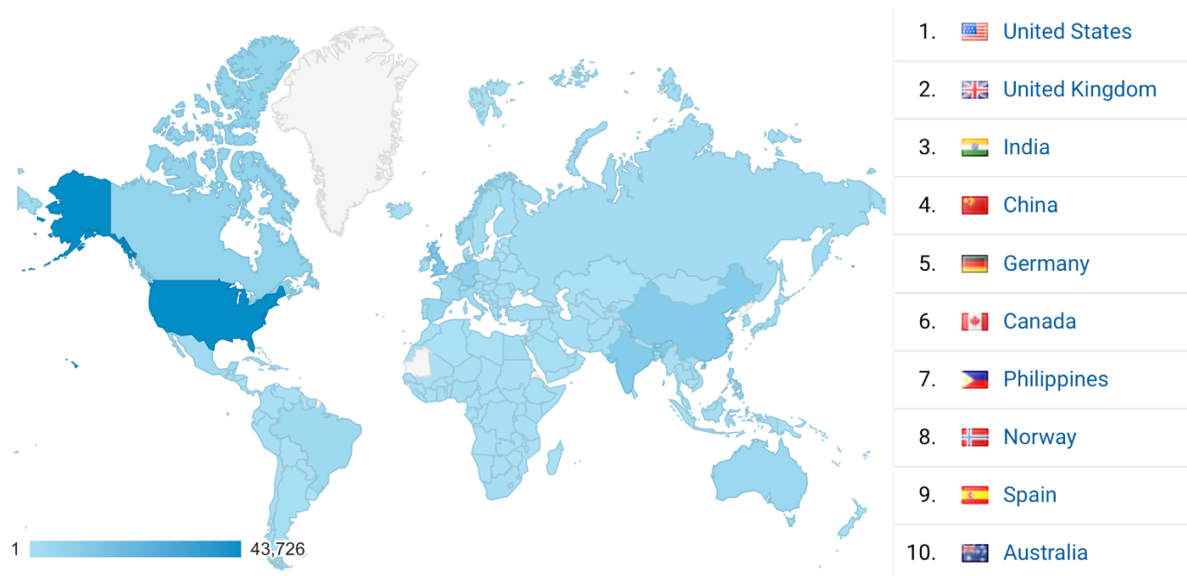
<sup>8</sup> <https://norecopa.no/PREPARE/Mychecklist>

<sup>9</sup> <https://www.gircor.fr/en-savoir-plus-sur-lhistoire-et-la-mise-en-pratique-des-3r>

## Milestone 5: We further developed Norecopa’s website and Refinement Wiki

The **norecopa.no** website is Norecopa’s greatest resource, which is freely available to everyone. The website is organised as a single large database, with 9,300 individual pages at the end of 2022.

Statistics from Google Analytics indicate that the website remains in use in most of the world’s countries:



Additions in 2022 included the incorporation of a dataset from the EU Reference Laboratory for Alternatives to Animal Testing, EURL ECVAM, on alternatives to laboratory animals in studies of respiratory disorders<sup>10</sup>. The dataset<sup>11</sup> permits a specific search in the dataset only and as part of a general search in Norecopa’s website<sup>12</sup>.

The website also contains several other established “databases” that require regular updating. Norecopa hires help for the updating of two of these: NORINA (2,800 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 other websites.

<sup>10</sup> [https://joint-research-centre.ec.europa.eu/eu-reference-laboratory-alternatives-animal-testing-eurl-ecvam/biomedical-research/respiratory-tract-diseases\\_en](https://joint-research-centre.ec.europa.eu/eu-reference-laboratory-alternatives-animal-testing-eurl-ecvam/biomedical-research/respiratory-tract-diseases_en)

<sup>11</sup> [https://norecopa.no/search?q=\\*&sf=all&fq=db%3Aeurlecvam&sort=&p=1&t=strict](https://norecopa.no/search?q=*&sf=all&fq=db%3Aeurlecvam&sort=&p=1&t=strict)

<sup>12</sup> [https://norecopa.no/search?q=\\*](https://norecopa.no/search?q=*)



Norecopa's website is driven by computer programs on external servers in several 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 down. 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.

Thanks to these investments, the website has proven to be extremely reliable. In 2022, the website had 343,754 hits (compared with 326,500 in 2021) from 186,372 unique users (163,955 in 2021).

More information about the website is available in the Appendix.

## Other highlights of 2022

Norecopa donated €3,000 to the ACURET organisation (*Animal Care and Use in Research, Education and Testing*)<sup>13</sup> in the form of event funding for their 10th anniversary meeting. ACURET is an association of countries in Africa and Central America. ACURET asked if they could use Norecopa's slogan (*PREPARE for Better Science*) as a theme of their symposium. The meeting was held in Abeokuta, Nigeria from 30 November to 3 December. The opening lecture was delivered by Norecopa's Secretary.



<sup>13</sup> <https://acuret.org>

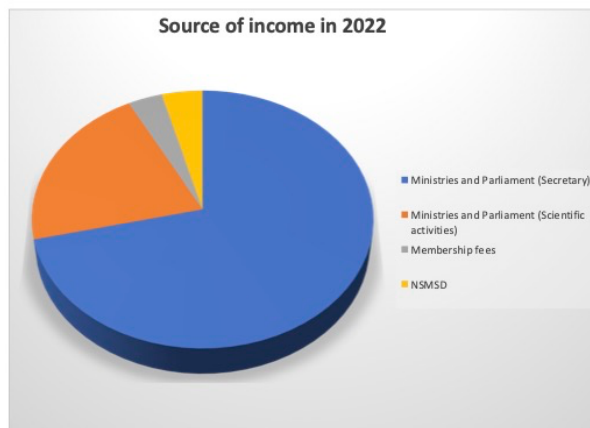


Norecopa took part in the FELASA congress in Marseille in June 2022 and gave three oral presentations. More information about this can be found in the Appendix.

**Where does the money come from?**

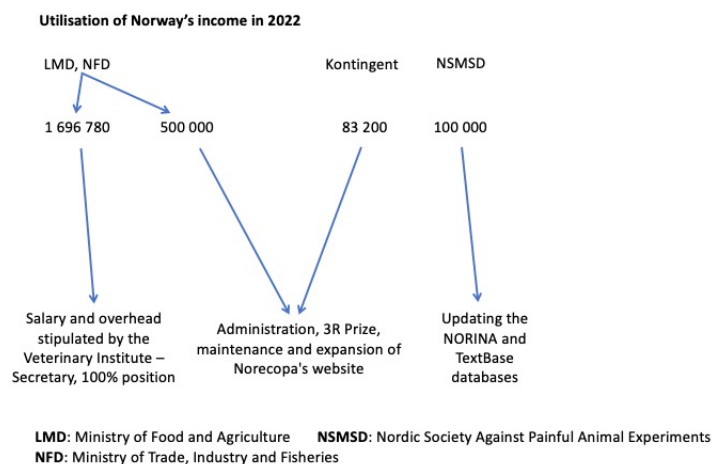
Norecopa’s core funding comes from the Norwegian Ministry of Agriculture and Food, as part of the administrative support subsidy (for *forvaltningsstøtte*) allocated to the Norwegian Veterinary Institute. The grant covered the cost of Norecopa’s Secretary in a full-time position, leaving NOK 500,000 aside for scientific activities, as in 2021. This funding was mentioned specifically in the Standing Parliamentary Committee on Business and Industry’s recommendations concerning the Ministry’s budget proposal for 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.



**What has the money been used for?**

The diagram below shows a rough outline of Norecopa’s income for 2022 was divided among its various work tasks.



Norecopa had one employee in 2022:


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>14</sup>.

Less than 2% of Norecopa's income was used for office expenses and the organisation's administration, including for legal and consultancy fees, even though we had to buy a new computer for the Secretary in 2022.

The accounts are described in greater detail in the Appendix.

Oslo, April 2023



  
Chris Noble  
(Chair of the Board)



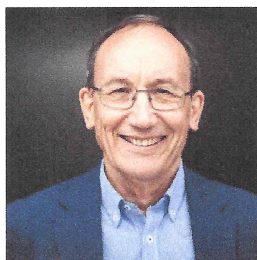
  
Rolf Hetlelid Olsen  
(Board Member)



  
Janette Maria Carlsen  
(Board Member)



  
Birgitte Fineid  
(Board Member)



  
Adrian Smith (Secretary)

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

# Appendix

## 1) About the organisation

### Norecopa's structure and goals

Norecopa is an independent member organisation, with a Board of Directors 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>15</sup>, and its Annual General Meeting as its supreme governing body<sup>16</sup>.

Moreover, Norecopa is a member of the European umbrella organisation for National Consensus Platforms, *ecopa (European Consensus Platform on Alternatives)*<sup>17</sup>. Adrian Smith became Board Member of *ecopa* on 8 December 2022.

Norecopa has an Activity Plan<sup>18</sup> which is approved at its Annual General Meetings.

### Norecopa's Board and Annual General Meeting

The 2022 Meeting was held as an online meeting on 1 June. There were 15 participants. The Annual Report and accounts for 2021, as well as the budget proposal for 2022 and the proposal for the membership fees (no changes from 2021) were all adopted.

Until the Annual General Meeting, the Board of Directors consisted of the following:

Bente Bergersen, Norwegian Food Safety Authority, (Board Chair)\*

deputy: Gunvor Knudsen, Norwegian Food Safety Authority\*

Susanna Lybæk, Norwegian Animal Protection Alliance\*

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

Kristian Straume-Lie, Biomark\*\*

deputy: Ingebjørg Sævareid, Salmon Group\*\*

Chris Noble, Nofima Tromsø\*\*

deputy: Siri Kristine Gåsnes, Norwegian Veterinary Institute\*\*

\*elected until 2022 \*\*elected until 2024

The Board Members representing Regulators (Bente Bergersen and her deputy, Gunvor

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<sup>15</sup> <https://norecopa.no/vedtekter>

<sup>16</sup> <https://norecopa.no/no/om-norecopa/aarsmoeter>

<sup>17</sup> <http://www.ecopa.eu>

<sup>18</sup> <https://norecopa.no/aktivitetsplan>

Knudsen) were up for re-election. Bente Bergersen did not seek re-election. The Election Committee proposed that regulators be represented by Janette Maria Carlsen (Norwegian Food Safety Authority), with Gunvor Knudsen (Norwegian Food Safety Authority) as her deputy. They were elected and will sit on the Board until the Annual General Meeting in 2026. The Board Members representing animal welfare organisations, Susanna Thee Heggli, née Lybæk, and her deputy Birgitte Fineid (Norwegian Society for Protection of Animals) were up for re-election. Both were willing to stand for re-election and will be on the Board until the Annual General Meeting in 2026. Susanna Heggli subsequently had to take leave of absence, so Birgitte Fineid functioned as primary representative for most of the autumn of 2022. Anton Krag from the Norwegian Animal Protection Alliance (former Board Member in Norecopa) agreed to act as deputy representative for Birgitte Fineid, but this did not turn out to be necessary in 2022.

Both Board Members representing the industry (Kristian Straume Lie and his deputy, Ingebjørg Sævareid) did not seek re-election. The Election Committee proposed Rolf Hetlelid Olsen (PHARMAQ), with Hogne Bleie (Mallard AS) as deputy representative. They were elected and will sit on the Board until the Annual General Meeting in 2024.

The Election Committee proposed Chris Noble as the new Chairperson of the Board to succeed Bente Bergersen. He was elected in this role by the Annual General Meeting, until the end of his term of office in 2024. Deputy Board Member Siri Kristine Gåsnes was on leave for much of 2022. Ingunn Sommerset, who has the same workplace (the Norwegian Veterinary Institute), agreed to act as her deputy, and this was adopted by the Annual General Meeting.

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

Until the Annual General Meeting in 2023, the Nomination Committee will consist of the following persons:

- 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 consists of:

- Regulators: Bjørn Groven, Norwegian Food Safety Authority
- Academia: Adam Lilicrap, NIVA
- Industry: Christian Wallace, VESO
- Animal welfare: Torill Malmstrøm, Dyreetikk.no

Adrian Smith thanked Chairperson Bente Bergersen for her long and dedicated service of 15 years to Norecopa. She had been Board Chair since Norecopa's establishment in 2007. He went over some of the highlights of Norecopa's operations during this period, pointing out the important role she played in these. Gifts and flowers were sent on the Board's behalf.

All the documents and minutes from the Annual General Meeting are available on Norecopa's website<sup>19</sup>.

Three Board Meetings were held in 2022: on 27 January, 4 May and 12 September. The minutes are available on Norecopa's website<sup>20</sup>.

### **The Secretariat**

Norecopa's secretariat is affiliated to the Norwegian Veterinary Institute, which therefore has responsibility for Norecopa's personnel and accounts. The position as Secretary was previously placed under the Section for Animal Health, Wildlife and Welfare but is now classified under "other employees". 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 in a 50% position since 2008. 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.

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

In 2022, 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 2022. 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 2022, 40 institutions or departments were full members of Norecopa, and 16 private persons were associate members. This is one institution and two people less than the previous year. Most major research institutions in Norway are members of Norecopa. No

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<sup>19</sup> <https://norecopa.no/about-norecopa/annual-meetings>

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

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*

### 2022 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. The Norwegian Veterinary Institute runs Norecopa's accounts as a project, which means that the cost of the secretarial position stood at NOK 1,696,780 in 2022, an increase by NOK 13,580 in 2021. 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 Parliament 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 83,200 in 2022. The accounts for 2022 showed a deficit of NOK 12,088, which was carried over to 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 2022, the Nordic Society Against Painful Experiments on Animals (NSMSD)<sup>21</sup> donated NOK 100,000 to this account, and the amount can be used freely by Norecopa. At year-end, the balance in the account stood at NOK 391,643.

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>22</sup>. Norecopa's 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.

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<sup>21</sup> <http://www.nsmsd.no>

<sup>22</sup> <https://norecopa.no/media/ktoaajih/revident-regnskap-2022.pdf>

Regnskap og budsjett, Norecopa

	Regnskap 2022	Budsjett 2022	Regnskap 2021
<b>Utgifter</b>			
1 Deltagelse på ecopas årsmøte	0,00		0,00
<b>Drift av sekretariatet</b>			
2 Bokførte utgifter til sekretærstillingen (Adrian Smith)	1 696 786,00	1 688 466,00	1 683 200,00
3 Bokførte utgifter til konsulent	1 756,82	8 000,00	11 821,20
4 Prosjektutgifter	40 638,81	15 649,89	16 519,28
4a Kontorutgifter	8 608,04	5 049,00	904,00
4b Reise og oppbehold av deltakere og programvare	31 421,97	10 000,00	9 610,28
<b>Fryktingsudgifter</b>			
5 Midler til årsmøte	3 573,09	0,00	0,00
6 Øvrige informasjonsmateriale	7 581,44	10 000,00	1 113,99
7 Medlemsavgift ecopa	1 542,05	1 199,00	1 946,29
8 Faglige møter	129 610,03	110 609,00	21 742,81
<b>Nettoider</b>			
9 Lisenser og støtteavtaler	122 093,91	100 000,00	99 198,08
10 Videreutvikling og reparasjoner av nettsider	213 595,00	174 000,00	197 609,04
11 Domeneregistrering	6 595,00	8 000,00	6 825,00
<b>Styremøter, årsmøte, høringer</b>			
12 Reiseutgifter	1 611,16	2 000,00	1 391,96
12 Avreise (gjennreise og Norecopa parante)			0,00
13 Høringer og årsmøte	1 611,16	2 000,00	1 391,96
<b>Describing</b>			
14 Avreise i eventuelle møte (bort det er mulig å antagelse det)	0,00	0,00	0,00
<b>Øvrige faglig aktivitet</b>			
15 Utvikling av tilleggs	77 416,82	162 000,00	369 381,18
15 Avsett faglig arbeid	30 267,86	31 000,00	30 764,50
16a IPH/ENDU-Dir	29 287,86	111 000,00	335 390,68
16a IPREPARAT for Eukalyptus (2022) (Julekonferanse)		0,00	200 000,00
16c Øvrige utgifter (2022 ACURET)	20 997,50	31 000,00	324,60
17 Copiering av NCRINA			0,00
18 ENRICH-fisk			0,00
19 Oppretting av nettsider	lagt til pkt. 10 overfor	lagt til pkt. 10 overfor	lagt til pkt. 10 overfor
20 IPREPARAT	16 181,76	20 000,00	3 230,00
21 Konferansetele		0,00	0,00
Sum utgifter uten midlene til sekretærstillingen	662 637,22	590 149,00	678 356,73
Reduksjoner i forbindelse med mulighet for å bruke egne midler			0,00
<b>Sum utgifter</b>	<b>2 286 617,22</b>	<b>2 278 609,00</b>	<b>2 363 839,73</b>
<b>Inntekter</b>			
22 Tilsetninger	-2 196 760,00	-2 188 460,00	-2 183 009,08
23 Informasjonsmateriale	0,00	6,00	-154 378,08
24 Tilsetning fra Stålevar AL/AB/Dyrehygiene Fagdivisjon LAG	0,00		0,00
25 Tilsetning fra Nordisk Sørhøst	0,00		0,00
26 ENRICH-fisk	0,00		0,00
27 Norsk Nordisk + NERUSD+NBH+LAL+UTDA+URAV+ Raber+Baroli	0,00		0,00
28 IPREPARAT	0,00		0,00
29 Medlemsavgift, fullt medlemskap	-80 000,00	-80 000,00	-80 000,00
30 Medlemsavgift, assosiert medlemskap	-3 200,00	-3 400,00	-3 460,00
31 Resultatet fra året før	-8 149,00	-8 149,00	56 190,99
<b>Sum inntekter</b>	<b>-2 286 729,00</b>	<b>-2 278 609,00</b>	<b>-2 370 589,68</b>
<b>Resultat</b>	<b>-12 089,22</b>	<b>0,00</b>	<b>6 749,27</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 2022 var det følgende beløp på kontoen:

- 1) 269 633 kr til oppdatering av NORINA-databasen
- 2) 100 000 kr fra Dyreværnsalliansens Forskningsfond til kartlegging av bruken av forskedyr i Norge
- 3) 40 561 kr fra diverse kilder (forelesningshonorarer, morskompensasjon, prispenge til Adrian Smith)

Ved utgangen av 2022 var det følgende beløp på kontoen:

- 1) 168 636 kr til oppdatering av NCRINA-databasen
  - 2) 100 000 kr fra Dyreværnsalliansens Forskningsfond
  - 3) 15 200 kr fra diverse kilder
- 4) 107 908 kr (100.000 i donasjon fra Nordisk Samfunn Mot Smerterelkøende Dyreliv samt forelesningshonorarer fra Karolinska Institutet og Göteborgs Universitet) ble sammen 391 643 kr

Erklæring for regnskapet til Norecopa for 2022

Jeg har gjennomgått regnskapet for 2022 og har ikke funnet noe i uttale på det oppsatte regnskap.

Oslo 27.3.2023

  
Jon U. Tjørveag

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. Therefore, Norecopa has turned to the Standing Parliamentary Committee on Business and Industry, which has been granting additional funding from the budget year 2013 onwards. This has lent Norecopa much greater effectiveness. The fact that Norecopa had a full-time secretarial position and NOK 500,000 for operating costs in 2022 gave the organisation the necessary leeway for achieving the milestones described in the first part of this Report.



## Overview of external funding in 2022

1. The Standing Parliamentary Committee for Business and Industry's proposal for the State Budget for 2022 was approved by the Parliament, and Norecopa was allocated funding for a full-time secretarial position and NOK 500,000 towards its activities.
2. Norecopa's agreement with the Nordic Society Against Painful Animal Experiments<sup>23</sup> (NSMSD) for financing of the work on further developing the NORINA database<sup>24</sup> expired in 2020, but the Society donated an additional amount of NOK 100,000 to Norecopa in 2022. The funds were deposited in the donor account.
3. In 2021, Norecopa applied for funding to the Research and Development Fund of the Norwegian Animal Protection Alliance<sup>25</sup> in order to conduct an in-depth analysis of the statistics concerning the use of animals in research and testing in Norway. This analysis will complement the work that will be done as part of a work package in a project led by the Institute of Marine Research, as described above. The Fund granted Norecopa's application for NOK 100,000. The funds were deposited in the donor account at the end of December 2021 and were meant to be used in 2022. However, the work continued until February 2023, meaning that the funds were not used in 2022.
4. Norecopa's members contributed a total of NOK 83,200 in membership fees.
5. 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.

### **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>26</sup>, which was established in 2019. EU3Rnet runs a COST Action<sup>27</sup>, called IMPROVE<sup>28</sup>, which is meant to

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<sup>23</sup> <http://www.nsmsd.no>

<sup>24</sup> <https://norecopa.no/NORINA>

<sup>25</sup> <https://dyrevern.no/dyrevern/the-norwegian-animal-protection-fund>

<sup>26</sup> <https://norecopa.no/3r-guide/eu3rnet>

<sup>27</sup> <https://www.cost.eu/about/about-cost>

<sup>28</sup> <https://www.cost.eu/actions/CA21139>

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 2022, the PREPARE checklist was translated into 9 additional languages:

Bosnian, Catalan, Croatian, Estonian, Georgian, Hungarian, Slovak, Slovenian and Ukrainian

By the end of 2022, the PREPARE checklist was available in a total of 34 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 28,000 times from its publication in 2017<sup>29</sup> and until the end of 2022, of which approx. 6,000 times during the reporting year.

PREPARE is also mentioned in the annual report of *Concordat on Openness on Animal Research*<sup>30</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 gave the following presentations in 2022. In addition, three presentations, which will be discussed later on, were delivered at the FELASA Congress.

1. *Can we improve both our scientific output and animal welfare? Experiences with planning animal studies*<sup>31</sup>, Max Planck Institute, Freiburg, 19 January
2. *The PREPARE guidelines: for better science, improved animal welfare and health & safety*<sup>32</sup>, FRAME Training School, 28 January
3. *PREPARE and ARRIVE: Planning and reporting animal studies*<sup>33</sup>, the Karolinska Institute, 31 January

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<sup>29</sup> <https://journals.sagepub.com/doi/metrics/10.1177/0023677217724823>

<sup>30</sup> <https://concordatopenness.org.uk/wp-content/uploads/2022/12/Concordat-on-Openness-Annual-Report-2022.pdf>

<sup>31</sup> <https://norecopa.no/190122>

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

<sup>33</sup> <https://norecopa.no/310122>

4. *How can NORECOPA help researchers PREPARE for better science?*<sup>34</sup> Webinar in a series on *Improving nonclinical research practices: way forward*, CroLASA in collaboration with SLAS, 16 February
5. *PREPARE for fish research*<sup>35</sup>, Focus on Fish seminar at the Karolinska Institute, Stockholm, 23 February\*
6. Webinar on a method of immobilisation of rodents (3-finger scruff technique) for international laboratory animal personnel in connection with the LAREF Forum<sup>36</sup>, 2 March
7. *The PREPARE and ARRIVE guidelines: How can we improve both our scientific output and animal welfare?*<sup>37</sup> the Karolinska Institute, Stockholm, 31 March
8. *Large Animal Resources*<sup>38</sup>, 7th Meeting of the Large Animal Research Network (LARN), 5 April 2022
9. *The pathway to better research: PREPARE to ARRIVE*<sup>39</sup>, Gothenburg University, 6 April\*
10. *Three Rs and Three Ss for improving both our science and welfare: The pathway to better research*<sup>40</sup>, Mainz University, 24 April
11. *The PREPARE guidelines: for better science, improved animal welfare and health & safety*<sup>41</sup>, FRAME Training School, 28 April
12. *Animal experiments and alternatives*, lecture to the Risør Rotary Club, 2 May\*
13. *Norecopa: Norway's Platform for the Three Rs: Replacement, Reduction and Refinement and a source of global 3R resources*<sup>42</sup>, Symposium on systematic reviews, US Medical Library Association, 24 May
14. Greeting to Finland's 3R centre FIN3R at its inauguration<sup>43</sup>, 3 June
15. *The pathway to better aquaculture research*<sup>44</sup> at Aqua3R: National Workshop on 3Rs in Aquaculture Research, Ås, 9 June\*
16. *Experiences with planning animal studies: how to improve scientific output and animal welfare*<sup>45</sup>, virtual workshop on the ethics of wildlife research, Association for the Study of Animal Behaviour, 21 June
17. *The pathway to better research: PREPARE to ARRIVE*, in-house webinar for an international pharmaceutical company, 23 June

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<sup>34</sup> <https://norecopa.no/160222>

<sup>35</sup> <https://norecopa.no/230222>

<sup>36</sup> <https://norecopa.no/3r-guide/laboratory-animal-refinement-forum-laref>

<sup>37</sup> <https://norecopa.no/310322>

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

<sup>39</sup> <https://norecopa.no/060422>

<sup>40</sup> <https://norecopa.no/220422>

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

<sup>42</sup> [https://norecopa.no/24\\_May](https://norecopa.no/24_May)

<sup>43</sup> <https://norecopa.no/FIN3R>

<sup>44</sup> <https://norecopa.no/Aqua3R>

<sup>45</sup> <https://norecopa.no/ASAB>

18. *Focus on experimental animals*<sup>46</sup>, presentation to the Ministry of Agriculture and Food's hearing on the announced animal welfare communication, 27 June\*
19. *Use of laboratory animals in Norway: are there alternatives?*<sup>47</sup> Arendalsuka, 18 August\*
20. *Use of PREPARE to identify refinements of severe models and procedures*<sup>48</sup>, RSPCA/Karolinska meeting, Focus on Severe Suffering, Stockholm, 24-25 August\*
21. *Let's PREPARE together to ARRIVE in better shape: how to plan animal experiments*<sup>49</sup>, poster at the Europhysiology Congress, Copenhagen, 16 September\*
22. *The pathway to better animal research*<sup>50</sup>, Applying Ethology (Animal Welfare Slack Workspace), 19 September
23. *Improving of animal research: a team effort*<sup>51</sup>, ANZLAA Congress, 21 September
24. *Experimental animals: the hidden cost*<sup>52</sup>, seminar on fish research, Litteraturhuset Oslo, 23 September\*
25. *An overview of guidelines for better preclinical research*<sup>53</sup>, EUSAAT Congress, Linz, 26 September\*
26. *How to improve scientific quality and animal welfare when planning animal studies*<sup>54</sup>, Congress on 3R Advances, India, 18 November
27. *What do you want from Norecopa?*<sup>55</sup> Meeting for animal welfare committees, 22 November\*
28. *Norecopa: Norway's national consensus platform for replacement, reduction and refinement of animal testing*<sup>56</sup>, DNV meeting about the proposed Governmental animal welfare report (*Stortingsmeldingen*), Oslo, 23 November\*
29. *PREPARE for Better Science*<sup>57</sup>, keynote presentation at the ACURET symposium, Nigeria, 1 December
30. Annual meeting of *ecopa* with a presentation of Norecopa's work during the past year, 8 December
31. *Norecopa: global 3R resources*<sup>58</sup>, Swiss 3R technological and Science meeting, 12 December

Apart from meetings marked with an asterisk (\*), participation in meetings was online. In addition, Norecopa's outgoing Board Chair, Bente Bergersen, presented a poster titled A

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<sup>46</sup> <https://norecopa.no/LMD/270622>

<sup>47</sup> <https://norecopa.no/Arendalsuka>

<sup>48</sup> <https://norecopa.no/RSPCA-KI>

<sup>49</sup> <https://norecopa.no/Europhysiology>

<sup>50</sup> <https://norecopa.no/Ethology>

<sup>51</sup> <https://norecopa.no/ANZLAA>

<sup>52</sup> <https://norecopa.no/kostnad>

<sup>53</sup> <https://norecopa.no/EUSAAT2022>

<sup>54</sup> <https://norecopa.no/3radvances>

<sup>55</sup> <https://norecopa.no/221122>

<sup>56</sup> <https://norecopa.no/231122>

<sup>57</sup> <https://norecopa.no/ACURET>

<sup>58</sup> <https://norecopa.no/121222>

guide to practical tools for improving scientific validity, animal welfare, and health and safety at the UFAW conference in Edinburgh from 28–29 June.

### **Presentations at the FELASA Congress**

Norecopa’s Secretary took part in the FELASA Congress in Marseille, on 13–16 June. The Congress was attended by 1,600 participants, 600 exhibitors and 200 virtual participants from a total of 55 countries. Norecopa’s Secretary held three oral presentations:

1. *Using a Refinement Wiki to enhance communication*<sup>59</sup>
2. *Norecopa: Working for global communication between all stakeholders*<sup>60</sup>
3. *PREPARE for Fish Research*<sup>61</sup>

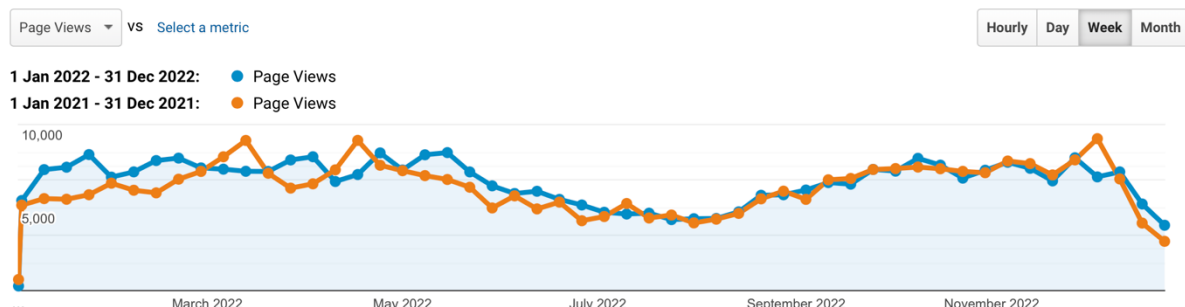
In addition, Norecopa funded room rental for a meeting of the *International Culture of Care Network*<sup>62</sup> during the Congress.

Norecopa’s work was cited in two of the three plenary lectures at the FELASA Congress.

### **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 uses Google Analytics to monitor the use of the website.

Norecopa has engaged two companies, NetLab and Bitfarm, to maintain and develop the website. Norecopa has an operating and maintenance agreement with Bitfarm. The company Webhuset is used to register Norecopa’s domains, and Getonnet provides the software for a discussion forum run by Norecopa (see below).



<sup>59</sup> <https://norecopa.no/FELASA/Wiki>

<sup>60</sup> <https://norecopa.no/FELASA/global>

<sup>61</sup> <https://norecopa.no/FELASA/Fish>

<sup>62</sup> <https://norecopa.no/coc>

Data from Google Analytics show that in 2022 the website had 343,754 visits from 186,372 unique users, who represented most countries in the world. The corresponding figures for 2021 were 326,500 visits from 163,955 unique visitors, representing increases of 5% and 14%, respectively. Thus, albeit somewhat reduced in 2022, the upward trend in the use of the website continues - the increases from 2020 to 2021 stood at 9% and 21%, respectively. In addition to these visits, there were over 6,400 file downloads from Norecopa's website, an increase of 20% compared to 2021.

Norecopa's website contains several databases. These include NORINA<sup>63</sup>, which holds information on products that can replace or supplement the use of animals in education and training, and TextBase<sup>64</sup>, which contains information on literature within laboratory animal science. In 2022, the Nordic Society Against Painful Experiments on Animals (NSMSD) resumed its aid to the work on maintaining and further developing these databases. Most of the work on updating NORINA and TextBase in 2022 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 2022, NORINA contained information about approx. 2,800 products, whereas TextBase had some 1,500 entries. These net figures are approximately the same as in 2021.

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 2022, the forum had 45 members, the same as in 2021.

Norecopa continues to fund the operation of the website of the ENRICH Fish project<sup>65</sup>, which was officially ended in 2017.

Dr. Karen Maciel de Oliveira has translated a text on Norecopa's website that describes an improvement in the rodent scruffing technique<sup>66</sup> into Portuguese<sup>67</sup>.

### **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](https://wiki.norecopa.no)) that was launched in 2020. At the end of 2022, there were 66 entries in the Wiki.

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<sup>63</sup> <https://norecopa.no/norina-database>

<sup>64</sup> <https://norecopa.no/textbase-database>

<sup>65</sup> <https://norecopa.no/fish/projects/enrich-fish>

<sup>66</sup> <https://norecopa.no/scruff>

<sup>67</sup> <https://norecopa.no/education-training/films-and-slide-shows/um-refinamento-da-tecnica-de-contencao>

## Incorporation of a dataset from the EU Commission

In 2022 Norecopa incorporated yet another dataset of 3R resources from the EU Commission's Joint Research Centre (JRC) into its website<sup>68</sup>. The dataset was the result of an evaluation of 14,000 literature abstracts on advanced animal-free models for research into cardiovascular disorders published in 2022. The dataset contains 448 resources. Incorporating it into Norecopa's website makes it possible to conduct searches simultaneously with searches in Norecopa's resources, and to then apply various filters to narrow down the search result.

## Norecopa's 3R prize

Norecopa received 2 nominations for its 3R prize<sup>69</sup>. The prize, which consists of NOK 30,000 and a diploma, was awarded for the 11th time, after the Annual General Meeting held on 1 June. The winners were three researchers at the Norwegian Veterinary Institute in Ås: Anita Solhaug, Mona Gjessing and Hilde Sindre from the BIO-Direct group<sup>70</sup>, for their work on developing cell lines for reducing the number of experimental animals in fish health studies. Presentations of the nominees<sup>71</sup>, the winners' lectures<sup>72</sup> and the Award Committee's conclusions<sup>73</sup> can be found on Norecopa's website.

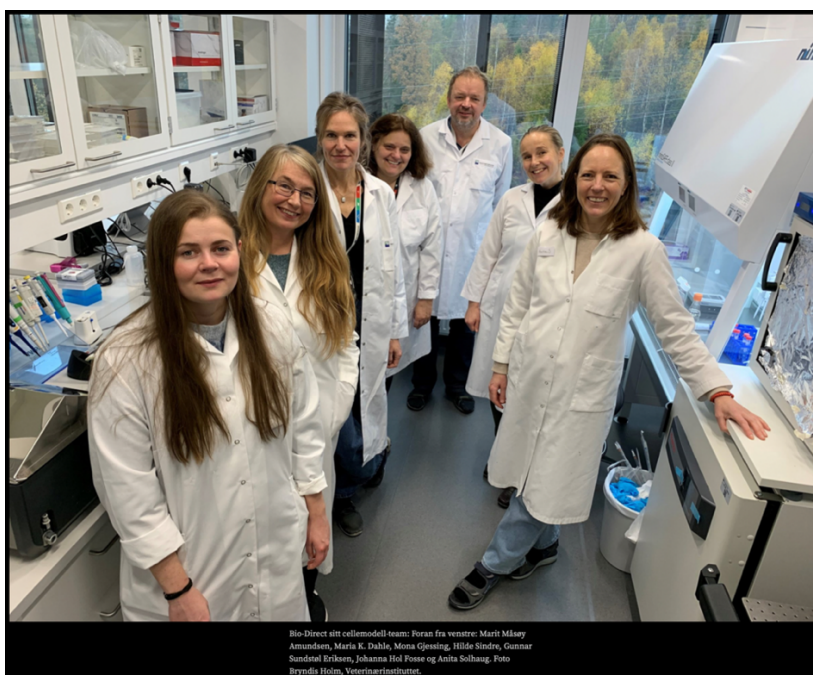


photo: Bryndis Holm, Norwegian Veterinary Institute

<sup>68</sup> <https://norecopa.no/databases-guidelines/eu-commission-dataset-on-cardiovascular-disease-models>

<sup>69</sup> <https://norecopa.no/about-norecopa/3r-prize>

<sup>70</sup> <https://app.cristin.no/projects/show.jsf?id=642052>

<sup>71</sup> [https://norecopa.no/media/hxubeorp/3r-prisutdeling\\_2022.pdf](https://norecopa.no/media/hxubeorp/3r-prisutdeling_2022.pdf)

<sup>72</sup> <https://norecopa.no/media/023ebjec/3r-pris-2022-biodirect-nvi.pdf>

<sup>73</sup> <https://norecopa.no/media/uiopp0tx/komiteens-innstilling-3r-pris-2022.pdf>



The winners of the 2021 prize, Carlo Lazado and Elisabeth Ytteborg at Nofima in Ås, used their prize money to co-finance *Aqua3r 2022: National Workshop on 3Rs in Aquaculture Research* in Ås on 9 June<sup>74</sup>.

## Contact meetings

### The Parliament and the Ministries

On 7 March, Norecopa sent identical letters to the Norwegian Ministry of Agriculture and Food and the Norwegian Ministry of Trade, Industry and Fisheries on the need to allocate more resources to the work on alternatives to animal testing in Norway. Questions regarding the case have also been asked in Parliament to the Trade, Industry and Fisheries by Rasmus Hansson from the Green Party (MDG). The answer was that this would be discussed with the Minister of Agriculture and Food in connection with the announced animal welfare report (*Stortingsmeldingen*).<sup>75</sup>

Norecopa's Secretary attended the hearing on the animal welfare report held by the Ministry of Agriculture and Food in Oslo on 27 June, where he presented the need for a 3R centre<sup>76</sup>. Norecopa submitted a written proposal, which was one of six proposals in support of a 3R centre<sup>77</sup>.

In order to maintain political interest in the 3Rs and demonstrate the need to allocate more resources for developing alternatives to animal experiments, Norecopa's Secretary has maintained contact with Members of Parliament from several parties. Most of the enquiries were made by email to members of the Standing Parliamentary Committee for Business and Industry. An invitation to the Committee to meet with Norecopa in person was unfortunately rejected. On 25 April, Norecopa's Secretary had a meeting with State Secretary Wenche Westberg and two civil service representatives (Department Director Kristin Nummedal and Trade Director Odd Anders Nilsen) at the Ministry of Agriculture and Food, in order to promote the need for a physical 3R centre<sup>78</sup>. On 8 September, he had a meeting with Olaug Bollestad from the Christian Democratic Party.

On 17 October, the Secretary made a statement<sup>79</sup> and submitted a memo<sup>80</sup> during the hearing of the Standing Parliamentary Committee on Business and Industry<sup>81</sup> on the Government's budget proposal for 2023. 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.

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<sup>74</sup> <https://www.deltager.no/event/349124>

<sup>75</sup> <https://www.stortinget.no/no/Saker-og-publikasjoner/Sporsmal/Skriftlige-sporsmal-og-svar/Skriftlig-sporsmal/?qid=88389>

<sup>76</sup> <https://norecopa.no/media/nh2p1uuk/norecopa-lmd-horing-dyrevelferd-270622.pdf>

<sup>77</sup> <https://www.regjeringen.no/no/aktuelt/innspel-til-ny-dyrevelferdsmelding/id2926297>

<sup>78</sup> <https://norecopa.no/media/tkcdtjmj/norecopa-lmd-250422.pdf>

<sup>79</sup> <https://vimeo.com/761421281>

<sup>80</sup> <https://norecopa.no/media/bfgp1eew/norecopa-notat-næringskomitéen-2022.pdf>

<sup>81</sup> <https://www.stortinget.no/no/Hva-skjer-pa-Stortinget/Horing/Horingsprogram/?dateid=10004935>

## 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 17 November, where he presented Norecopa's work under the title: *What do you want from Norecopa?*<sup>82</sup>

## 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>83</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>84</sup>

## Other activities during 2022

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](https://norecopa.no/coc)).
2. been a Board Member of *ecopa* since 8 December 2022. During the reporting year, he invested a lot of time in providing assistance with the website of the organisation.

## Norecopa's publications during 2022

### 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>85</sup> and their content is searchable, which increases their value. The number of subscribers increased by 16% in 2022: from 1,107 subscribers to the first newsletter on 22 February to 1,287 subscribers to the last newsletter on 21 December.

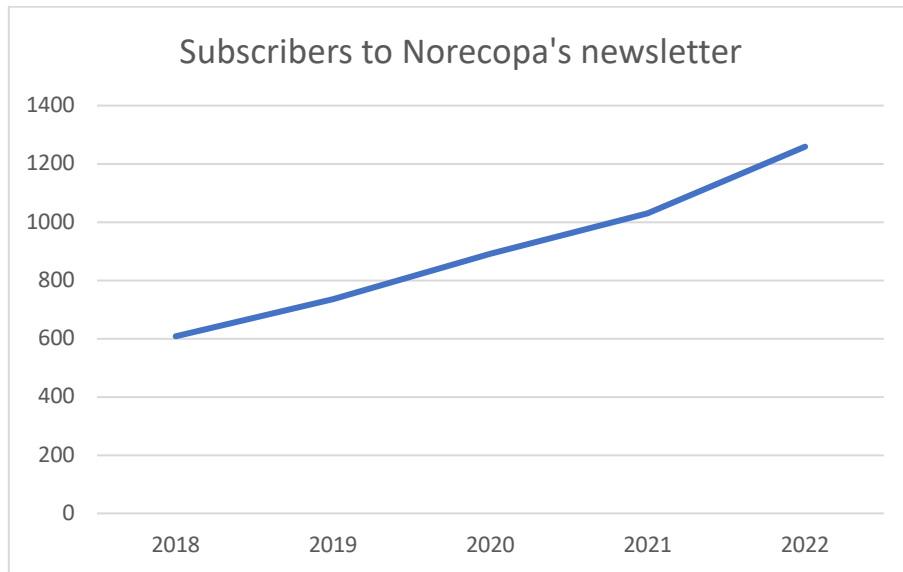
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<sup>82</sup> <https://norecopa.no/221122>

<sup>83</sup> <https://norecopa.no/species/fish/projects/severity-assessment-and-salmon-welfare>

<sup>84</sup> <https://norecopa.no/species/fish/projects/sphertox>

<sup>85</sup> <https://norecopa.no/news/newsletters>



### **Scientific papers**

Norecopa's Secretary was co-author of the following scientific papers published in 2022:

- Neuhaus W. *et al.* (2022): The Rise of Three Rs Centres and Platforms in Europe<sup>86</sup>. *Alternatives to Laboratory Animals*. 50(2):90-120. doi:10.1177/02611929221099165
- Neuhaus W. *et al.* (2022): The current status and work of Three Rs centres and platforms in Europe<sup>87</sup>. *Alternatives to Laboratory Animals*. 50(6):381-413. doi:10.1177/02611929221140909

He updated a paper about animal research that is part of the Research Library of the National Research Ethics Committees. The paper is available in both English<sup>88</sup> and Norwegian<sup>89</sup>.

Norecopa's Secretary spent a lot of time in 2022 completing a chapter on the 3Rs, together with Dr. Jon Richmond from the UK, which is due to be published in the next edition of UFAW's textbook *Handbook on the Care and Management of Laboratory and Other Research Animals*<sup>90</sup>. The book is due for publication in the spring of 2023. Several other publications are underway.

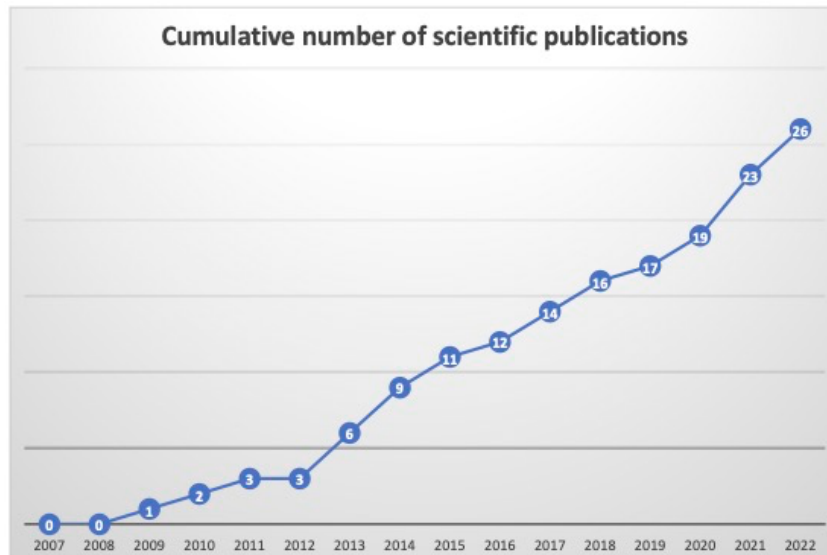
<sup>86</sup> <https://journals.sagepub.com/doi/10.1177/02611929221099165>

<sup>87</sup> <https://journals.sagepub.com/doi/full/10.1177/02611929221140909>

<sup>88</sup> <https://www.forskningsetikk.no/en/resources/the-research-ethics-library/research-and-environment/animals-in-research>

<sup>89</sup> <https://www.forskningsetikk.no/ressurser/fbib/miljo/dyr>

<sup>90</sup> <https://www.ufaw.org.uk/animal-welfare-publications/the-ufaw-handbook-on-the-care-and-management-of-laboratory-and-other-research-animals>



## Opinion pieces and other articles

Norecopa invested a lot of time in 2022 in writing opinion pieces, in an attempt to strike a responsive chord among Norway's politicians to allocate more resources to the work with the 3Rs:

- Norecopa's Secretary was interviewed by the *Nationen* newspaper on 26 August<sup>91</sup>, based on Norecopa's proposal<sup>92</sup> to the hearing of the Ministry of Agriculture and Food on 27 June about the animal welfare report which is due in 2024.
- Several posts from researchers at the Institute of Marine Research in September were followed up by an opinion piece on 14 September in the *Nationen*, which was written by Norecopa's Secretary and Board Chair, three researchers from the Norwegian Veterinary Institute and the Institute of Marine Research<sup>93</sup>.
- On 8 October, Norecopa's Secretary, Board Chair and researchers from the Norwegian Veterinary Institute and the Institute of Marine Research published an article in *Dagens Næringsliv*<sup>94</sup>, where they pointed out that fish experiments are assessed according to the same severity categories as those for terrestrial animals.

A complete overview of these articles is available in Norecopa's newsletter no. 5/2022<sup>95</sup>.

<sup>91</sup> <https://norecopa.no/Nationen-260822>

<sup>92</sup> <https://norecopa.no/media/nh2p1uuk/norecopa-lmd-horing-dyrevelferd-270622.pdf>

<sup>93</sup> <https://www.nationen.no/motkultur/debatt/vi-tenger-et-senter-for-forbedring-reduksjon-og-erstatning-av-dyreforsok>

<sup>94</sup> <https://www.dn.no/innlegg/havbruk/forskning/forsoksdyr/norge-bruker-over-to-millioner-forsoksdyr-i-aret/2-1-1323197>

<sup>95</sup> <https://norecopa.no/news/newsletters/5-2022>

Norecopa's Secretary has also been interviewed several times:

- He was interviewed for a 40-minute animal testing-related podcast under the *Get Real* slogan<sup>96</sup>, hosted by Dr. Cindy Buckmaster. The purpose of the series<sup>97</sup> is to disseminate information about animal trials and the challenges associated with that to the wider public. The podcast was part of a series titled *The RAW Truth*, the fourth instalment of which (*Checklists, Communications and Cures*) was the interview with Adrian Smith. Cindy Buckmaster also created a resource page<sup>98</sup> for the podcast as well as a page containing more general information about animal testing<sup>99</sup>.
- He was also interviewed by the magazine of the American Anti-Vivisection Society (AAVS), *AV Magazine*<sup>100</sup>. The interview was in connection with an article entitled *The Complex Role of Lab Vets*.
- He was further interviewed by the Norwegian Animal Protection Alliance's magazine, *Dyrevern*. The story, together with an introduction in the use of experimental animals in Norway, is published on Norecopa's website, with permission<sup>101</sup>.

## Norecopa and social media

Norecopa has prepared a brochure describing the organisation and its activities. This can be downloaded as pdf files in English<sup>102</sup> and Norwegian<sup>103</sup> and can be used freely.



Norecopa has updated the collection of discussions on improving care for laboratory animals and animal experiments originating from the Laboratory Animal Refinement Forum

<sup>96</sup> <https://www.getreal.naiaonline.org>

<sup>97</sup> <https://www.getreal.naiaonline.org/episodes>

<sup>98</sup> <https://www.getreal.naiaonline.org/episode-responses/blog-post-title-one-2tpxa-8xj3t-wxymb-w8zf6-x7k8p-8286t-jcxb-fxw7x-4ar8l-gb7h3-3l77e-4jnnng-gr2xr-6nnxd-8m5cd-n4hnp>

<sup>99</sup> <https://www.getreal.naiaonline.org/resources>

<sup>100</sup> <https://aavs.org/our-work/av-magazine>

<sup>101</sup> <https://norecopa.no/media/4djK0bfv/dyrevern-1-2022.pdf>

<sup>102</sup> <https://norecopa.no/media/cpgprhp5/norecopa-brochure.pdf>

<sup>103</sup> <https://norecopa.no/media/p0jhcurq/norecopa-brosjyre.pdf>

(LAREF)<sup>104</sup>. These are freely available on Norecopa's website and do not require you to be a member of LAREF<sup>105</sup>.

**What can a 3R centre do?** Adrian Smith has written a memo about this, which can be used freely<sup>106</sup>.

At the beginning of the year, 726 persons followed Norecopa's Facebook profile<sup>107</sup>. By the end of the year, the figure had grown to approx. 760.

Norecopa has used Twitter more than Facebook this year. Norecopa's Twitter account (@norecopa)<sup>108</sup> has 1,000 followers and was viewed 38,200 times in 2022, compared with 87,700 in 2021. In addition, Adrian Smith has his own Twitter account with 700 followers, where the majority of posts deal with Norecopa. The posts there were viewed 39,800 times in 2022, compared with 56,700 times in 2021.

Norecopa has a LinkedIn page<sup>109</sup>, and the Secretary also posts information about Norecopa on his own LinkedIn page<sup>110</sup>.

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<sup>104</sup> <https://norecopa.no/3r-guide/laboratory-animal-refinement-forum-laref>

<sup>105</sup> <https://norecopa.no/media/abxjwq00/laref-discussion-2002-2022.pdf>

<sup>106</sup> <https://norecopa.no/media/wazgqt2/hva-kunne-et-3r-senter-gjort.pdf>

<sup>107</sup> <https://www.facebook.com/Norecopa>

<sup>108</sup> <https://twitter.com/norecopa>

<sup>109</sup> <https://www.linkedin.com/company/23545108>

<sup>110</sup> <https://www.linkedin.com/in/adrian-smith-bb567b5a>

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