



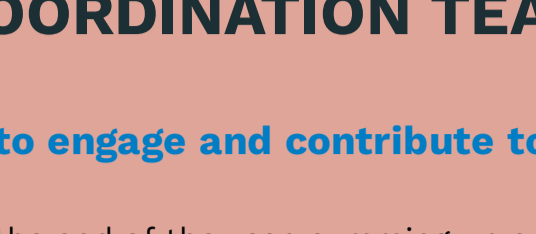
FINNISH
3R
CENTER

FIN3R



WELCOME TO FIN3R NEWSLETTER!

Welcome to the holiday edition of the FIN3R newsletter! Scrolling down, you will have a chance to read about activities we had during this year, but also have a glimpse at what we are planning for 2025. Stay tuned!



COORDINATION TEAM

Do not hesitate to engage and contribute to our activities!

We are approaching the end of the year, summing up and planning for the upcoming months. While continuing with traditional activities, bringing more courses, webinars, and workshops to scientists in Finland, and around the world, we will be introducing new initiatives as well.

Would you like to take part in this?

If so, please do not hesitate to get in touch with us!

We are open to supporting and collaborating with you in bringing the 3Rs principles in the light they need. For us, they mean not only more ethical data collection but more sustainable, accurate, and better science.

Therefore, FIN3R warmly welcomes all researchers to join our community and contribute to advancing 3R activities and education in Finland. Participate in our webinars and other events, and consider applying to become a 3R Director or Advisor for the upcoming term starting in 2026. In addition, we are open to providing support financially or partnering in the realization of your ideas. For more information please contact our coordinator, Dario Greco (dario.greco@tuni.fi).

Sincerely,

Dario Greco, Tommaso Serchi, Hanna-Marja Voipio, Eero Lehtonen



REFINEMENT TEAM

Culture of Care, Animal Welfare Body Network and much more

The Refinement group of FIN3R Center is happy to update newsletter subscribers on its activities in 2024 and looks forward to sharing plans and ideas for 2025.

Animal Welfare Body (AWB) Network has been kicked off according to our plans for 2024 with two online and one in-person meeting. During the meetings, we managed to set up detailed plans in line with the input from the members. Working practices of different AWBs, both private and academic sectors, have been discussed to facilitate discussion and initiate refinement within the institutional AWBs.

During the in-person meeting (on October 24 in Tampere) we shifted focus to statistical reporting aspects of animal use, covering the topic from institutional ground through national authorities and EU-level to provide insight on the relevance of the numbers and reporting practices. Further related to the number of animals used in research education and teaching, there has been an active discussion on the different definitions and minimization possibilities of the number of surplus animals, where several good practices have been identified to be further discussed in detail by the Network. Vootele Voikar presented the current situation of similar **AWB Networks across Europe**. During the in-person meeting, the network was honored to welcome Susanna Louhimies to present relevant prospects from the European Commission. The Network had initially been started by 10 establishments represented, while at the latest in-person meeting there were members of 14 institutions participating.

If you happened to miss the AWB-network meetings so far and would be interested in joining, or you have any suggestions for the AWB-network to discuss, please contact Vootele Voikar (vootele.voikar@helsinki.fi).

Refinement Group Director, Vootele Voikar is also representing FIN3Rs center in forming a **network of 3Rs centers across Europe** to promote collaboration between existing and support emerging 3Rs centers.

In 2024, the FIN3R Refinement group hosted nine webinars on highly topical issues. Some occasions could attract nearly 200 participants from dozens of countries across the globe!

The recordings of the webinars are available to watch [here](#), and the series will be continued in 2025.

FIN3Rs as a whole and the Director and Advisors of the Refinement group have been actively contributing to the **Scand-LAS2024** conference in Tampere – as organizers, session chairs, and speakers.

Refinement group had also been involved with a **Workshop on Good Scientific Practice** held in Helsinki organized earlier this year, with possible repetition in 2025.

Refinement group is actively participating in and supporting an in-person **Culture of Care Seminar** planned to take place in **April 2025**. Stay tuned for dates and location!

Have a good holiday season,

Vootele Voikar, Hajnalka Nadai, Johanna Ahlgren, Brian Mphande



REDUCTION TEAM

Promoting Quality in Science Through Reduction

Advancing scientific research requires innovation grounded in ethical principles. Over the past year, we have prioritized the **3Rs framework**—Replacement, Refinement, and Reduction—in animal research. This approach not only improves animal welfare but also enhances the reliability of scientific outcomes.

One key focus has been **longitudinal experiments with laboratory animals**, which allow for deeper insights into complex biological processes while reducing the need for additional subjects. We can advance research by leveraging innovative methodologies and technologies while minimizing harm and promoting sustainable practices.

To further reduce animal usage, we have emphasized **rigorous experimental design and statistical methods**, by organizing workshops on study design and power analysis to ensure meaningful research results. In line with this, experimental design is at the core of reproducibility, and the use of The Experimental Design Assistant (EDA) is encouraged to help design reproducible and rigorous animal experiments with a minimum of animals. Additionally, adopting reproducibility-enhancing strategies, such as estimation statistics, reinforces the credibility of our findings. By combining laboratory animal research with alternative models like human stem cell-derived systems, we can replace and reduce animal use where possible and increase high-quality research outcomes. Through ethical practices and a commitment to sustainability, we strive to contribute meaningfully to science and society.

Together, let us continue fostering a culture of excellence, integrity, and inclusivity to drive impactful discoveries and a sustainable future!

Kind regards,

Mikko Airavaara, Reetta Hinttala, Satu Kuure



REPLACEMENT TEAM

Advancing education in alternative methods

Greetings from the Finnish 3R Center's Replacement team!

During this fall, the Replacement team has been busy **organizing and advancing academic education in alternative methods for animal experiments**.

During August, the team organized a doctoral school course *“Alternative non-animal methods in biomedical research”* in Kuopio with team member Sarka Lehtonen from the University of Eastern Finland. The course included lectures from experts developing in vitro technologies as well as from regulatory bodies including ECHA and FIMEA, and a keynote from a long-standing Finnish member of the European parliament, Sirpa Pietikäinen.

The course included the possibility for students to visit two local biomedical research companies. In Experimentica Oy, students learned about the innovative approaches the company uses to advance ophthalmic research that prioritizes non-animal testing. Students also gained an understanding of eye-specific methodologies, cell cultures, organ-on-chip technologies, and advanced computer-aided image analyses. These methodologies not only provide more accurate and reliable data but also open new avenues for exploring the mechanisms of human ophthalmic diseases in vitro. In the Ferring Ventures Oy laboratory, students were familiarised with allogenic human immune cell processing and manufacturing for therapeutic purposes. Also, closely related analytics were presented: instruments and methods for showing the efficacy and safety of the cell products.

In addition to organizing the course, the Replacement team has in collaboration with the TOKES Board started to **investigate the current state of national Replacement training and education**. Johanna Englund from FIN3R, Hanna Vuorenpää and Melina Malinen from TOKES have joined forces to lead an initiative to investigate the current state of university-level teaching and courses related to alternative methods for animal experiments.

The primary aim of the task force is to gain a comprehensive picture of the type and breadth of courses that are available related to replacement in Finnish universities. Moreover, this is to ensure that there is enough training nationally and that future scientists are equipped with the knowledge and tools to adopt and use non-animal research methods. To work towards this goal the task force has sent out a survey to research coordinators of Finnish universities with relevant study programs or tracks. Currently, the team is analyzing the results of this survey, which will be available in the beginning of next year.

Stay tuned for updates on the findings of the above initiative, and the Replacement activities for the year 2025. The team is looking forward to the approaching holiday season and wishing everyone a wonderful end of the year!

Best wishes,

Johanna Englund, Sarka Lehtonen, Jenni Hakkarainen and Virve Sihvola

Finnish 3Rs Annual Symposium 2024

For three days in November, with the effort from other collaborators, we have gathered more than 100 participants to join us in Oulu, for the **Finnish 3Rs Annual Symposium 2024!**

Two workshops organized to advance the skills of young researchers in *Power Analysis and Experimental design* were fully booked. The program continued with ten excellent presentations covering topics related to all three Rs.

The first talk by Dario Greco (University of Tampere) discussed integrated approaches in toxicology and pharmacology, before giving the floor to Daniel Persson (University of Helsinki). He has presented his research and insights on anesthetic influence on cerebrospinal dynamics in rodents. The day was concluded with a talk by Thorsten Buch (University of Zurich) and his insights on laboratory animal breeding practices. Before the last talk, three students had an opportunity to briefly present their research done at the University of Oulu, and the University of Tampere.

The early morning started with two inspiring talks referring to **the transition of animal studies into replacement models**. Anna Dowbaj (Max Planck Institute of Cell Biology and Genetics) and Andreas Romaine (University of Oslo) discussed their research before the topic changed to the refinement models.

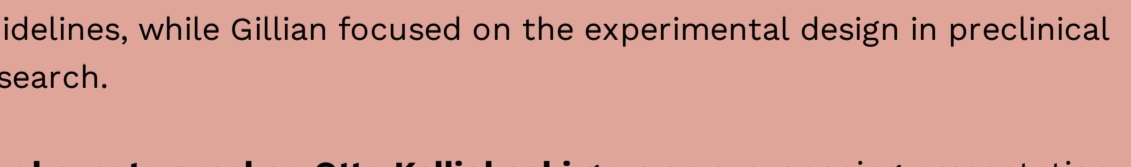
The refinement session highlighted the importance of **housing, handling, and habituation of laboratory animals (3Hs)**. Examples from practice were brought by Megan Jackson (University of Bristol) and Julia Swan (University of Eastern Finland). The discussion was extended in the same direction with a short oral presentation by researchers coming from the University of Eastern Finland, the University of Oulu, and EARA.

The final session hosted three speakers - Guillaume Pavlovic (Institut Clinique de la Souris), Gillian Currie (University of Edinburgh), and Otto Kallioikoski (University of Copenhagen). Guillaume presented the LAG-R guidelines, while Gillian focused on the experimental design in preclinical research.

Our keynote speaker, Otto Kallioikoski gave an eye-opening presentation about fraudulent studies in animal research. The discussion covers the impacts they have on science, as well as the potential next steps in preventing this from happening.

Positive feedback and strong attendance left us waiting for the next week and an opportunity to develop the 3Rs further. Recording of some of the session could be found [here](#).

Big thank you to all of our sponsors for all of our collaborators for joining our efforts, and the organization committee for excellent work. Follow our web network to hear more about the Annual Symposium in 2025. See you next year!



UPCOMING EVENTS

SAVE THE DATES!

January 14, 2025: FIN3R WEBINAR "Culture Club: Good Karma Chameleon for Your Workplace" which will be presented by **Dr. Angela Kerton** (Learning Curve (Development) Ltd, UK), at 14.00 (EET). More information about the event is available [here!](#)

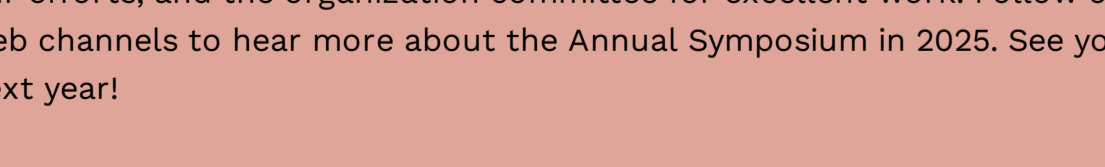
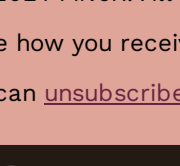


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