

The Norecopa 3R-Prize committee has evaluated the nomination for 2025 and would like to award the 3Rs prize to three researchers from the University of Oslo who are leading efforts to replace animal testing with advanced lab-grown models like organoids (miniature organs grown from human cells) and organ-on-chip systems. These models allow drugs to be tested more accurately and ethically, often using cells from individual patients.

Working at the Hybrid Technology Hub, a world-class research center combining biology, medicine, ethics, and technology, the three researchers —Aleksandra Aizenshtadt, Mathias Busek, and Stian Kogler—have made key breakthroughs. Aizenshtadt focuses on liver organoids, Busek contributes to organ-on-chip development, and Kogler has pioneered new ways to analyze how these mini-organs function and respond to drugs.

Their research allows scientists to simulate diseases, study organ interactions, and track how drugs are broken down in the body—paving the way for better and safer treatments. Their innovations are recognized globally and are now part of several international research collaborations. Some of their technologies are also moving toward commercialization, which will help make these animal-free testing alternatives more widely available.

Beyond research, they have mentored students and shared their knowledge publicly. For instance, Kogler recently addressed a government committee on animal welfare, highlighting the practical and ethical benefits of their work.

Why They Deserve the 3R Prize

Aleksandra Aizenshtadt, Mathias Busek, and Stian Kogler have made groundbreaking contributions to replacing animal testing through the development of organoids and organ-on-chip technologies—laboratory-grown models that replicate human organ functions with high precision. Their work directly addresses the "Replacement" principle of the 3Rs by offering scientifically superior, human-relevant alternatives that reduce the need for animal models in drug testing and disease research.

Working at the interdisciplinary Hybrid Technology Hub, they have created advanced systems that simulate disease, replicate complex organ interactions, and accurately measure how drugs are metabolized. These innovations not only replace animal testing but also enhance the predictive power and ethical standards of biomedical research.

Their methods are already being recognized internationally, integrated into global collaborations, and moving toward commercialization—ensuring real-world impact and wider adoption. They have also played a key role in mentoring young scientists and advocating publicly for animal-free research, helping embed the 3R principles in the next generation of science.

Their visionary work exemplifies the spirit of the 3R Prize by replacing animal use with more humane, effective, and personalized alternatives, making them outstanding candidates for this award.