

*Animal experiments*

## **2020 3Rs Awards to researchers at universities of Bern & Zurich**

To recognise their outstanding contribution to the promotion of the 3Rs principle, the Swiss 3RCC is proud to present its 3Rs Award 2020 to Prof. Ronald Dijkman from the University of Bern and the Young 3Rs Investigator Award to Joseph Scarborough from the University of Zurich. Not only does their research help promote the [3Rs principle](#), which aims to replace, reduce and refine animal experiments, the projects also offer translatable outcomes so other researchers can use their methods. The 3Rs Award 2020 and Young 3Rs Investigator Award recipients will receive CHF 4,000 and 1,000 respectively to support their work. Furthermore, they will get the opportunity to present their awarded research at the Swiss 3Rs Day 2021 and in a featured video

The 3Rs Award 2020 will go to Ronald Dijkman at the Institute for Infectious Diseases of the University of Bern. Dijkman and his team collect human cells lining the airways and culture these cells in a petri dish. They conduct studies on these *in vitro* cell cultures to better understand how viruses, such as SARS-CoV-2, interact with the cells, tissues and organs. With his model for respiratory infectious diseases, like Covid-19, Dijkman is able to replace certain experiments that would have otherwise needed animals. His approach can also be applied to study the interactions of viruses in the airways of various domesticated and wildlife animals, which has the potential to improve veterinary health and further reduce the need for *in vivo* experiments.

The Young 3Rs Investigator Award 2020 will go to PhD student Joseph Scarborough for his work in Prof. Urs Meyer's laboratory at the Institute of Veterinary Pharmacology and Toxicology at the University of Zurich. Scarborough developed a novel method to administer pharmaceutical substances to mice with a sweetened solution using a small pipette, thus motivating the animals to voluntarily take the pharmaceutical substances. This method reduces the animal's stress, improves their welfare, and therefore also the quality of study results. Scarborough has already helped implement the procedure at several research groups at the University of Zurich.

Quote 3RCC Director - "The 3RCC is thrilled to acknowledge these outstanding performances in advancing 3Rs research. Future research on SARS-CoV-2 is likely to increase, both in volume and importance, and the method developed by Dijkman offers a very interesting venue for further implementation of replacements in this field. The work of Scarborough shows not only the benefits refinement approaches have for animal welfare, but also how important it is for elevating the quality of the results."

**3 R** Swiss 3R  
**C C** Competence  
Centre

**References:**

Publications Prof. Ronald Dijkman

<https://www.biorxiv.org/content/10.1101/2020.11.10.374587v1>

[https://link.springer.com/protocol/10.1007%2F978-1-0716-0900-2\\_10](https://link.springer.com/protocol/10.1007%2F978-1-0716-0900-2_10)

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Publication Joseph Scarborough:

<https://www.sciencedirect.com/science/article/pii/S0889159120302543>

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