





# CAS Advanced Research Methods: Implementing the 3Rs in Animal Testing Replacement, Reduction and Refinement for Responsible and Innovative Research

The programme focuses on current practices in biomedical research concerning the use of animal experimentation and alternative new approach methodologies (NAMs). It emphasizes innovative strategies and best practices for the replacement, reduction, and refinement of animal testing.

It is designed to equip participants with knowledge on why animal testing is necessary, as well as on the possibilities of minimizing animal use and refining current practices, while ensuring scientific quality and compliance with regulatory requirements.

#### Contents

The modularised programme combines theoretical lectures with real-world case studies to provide a comprehensive understanding of key concepts. It introduces the 3Rs (Replacement, Reduction, Refinement)

through societal, ethical, historical and practical contexts of animal experimentation.

Participants will gain insight into the international and national legal and regulatory frameworks related to animal use and implementation of the 3Rs in various research fields. Replacement strategies including in-silico and in-vitro assays are introduced through various case studies. Including a focus on implementation, understanding advantages as well as limitations. New approach methodologies (NAMs) for reducing animal use without compromising scientific outcomes are presented. Participants learn about the latest refinement procedures and welfare management for improvement. Participants are also equipped with leadership and communication skills to advance 3Rs in response to societal, political and institutional drivers.

Overall, participants will be able evaluate and apply the 3Rs principles effectively within the legal framework in applied research.



### **Target Group**

This part-time training is suitable for professionals across different fields that are interested in biomedical research and animal testing, such as industries (pharmaceuticals, cosmetics, consumer goods, chemicals), research institutions, policy makers and advocacy groups.

The admission criteria are outlined on our website.

#### Degree / ECTS

Certificate of Advanced Studies FHNW Advanced Research Methods: Implementing the 3Rs in Animal Testing / 10 ECTS

#### Location

Online and FHNW Campus Muttenz

# About the programme partner

The content has been defined in collaboration with programme partner Swiss 3RCC and is supported by the 3R-Network in Baden Württemberg and the 3RCenter Tübingen.



#### **Programme Manager**

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## **Programme Administration**

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# **Further Information and Registration**

www.fhnw.ch/applied-3rs



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