



Basel Declaration Society | Allschwilerplatz 1 | Postfach | CH-4009 Basel  
www.basel-declaration.org | contact@basel-declaration.org

## **Implementing the 3R Principles in Daily Research Practice – the Next Steps**

3R-research activities appear to have arrived at crossroads: the major challenge is not only the development of novel methods and approaches to increase the impact of the 3Rs, but promote implementation of the 3Rs in the planning and execution of research projects, in which choices between using animals or alternative methods have to be made. A major aim is to raise the awareness of using the 3Rs and work toward their general implementation in state-of-the art biomedical research. It is also important to provide researchers with the proper incentives for implementing the 3Rs in their day-to-day research routine. To reach these aims, the following issues are in need of special attention at this stage:

1. At higher educational institutions, students need to be made aware of the 3R-philosophy as early as possible and throughout their curriculum. The 3Rs need to become part of the educational programme starting with bachelor students and continue to postdoctoral levels. Subsequently, the 3R knowledge needs to be continuously refreshed and updated, i.e. become an integral part of carrier development and lifelong learning.
2. The implementation and promotion of the 3Rs principles is a fundamental component of a culture of care within all research organizations. Senior management must establish a culture of responsibility and accountability where staff at all levels share a common commitment to: challenging necessity for animal use through rigorous ethical review, replacing animals through the use of alternative methods, reducing animal use through efficient experimental design and reducing suffering through refinement of experimental practice, animal husbandry and care.
3. The development of unified approaches with respect to dissemination of the 3R-philosophy within the research community and to general public is important. This can be supported by e.g. the establishment of institutional or (inter-) national 3R-Awards and other incentives.
4. Increased funding throughout Europe, to a level that represents a significant proportion of the total life science research funding budget, for research projects that seek to advance the development and validation of non-animal alternative methods or to otherwise advance implementation of the 3Rs. This should aid the implementation of experimentally sound alternative approaches, which help to replace, reduce and/or refine animal studies as part of state-of-art life sciences research.
5. Novel methods to assess the general validity and success of 3R research projects by both granting agencies and publishers are required.