

### **3Rs implementation and technical-scientific evaluation of research projects involving the use of laboratory animals**

Russell and Burch's *The Principles of Humane Experimental Technique* was first published in 1959. They proposed a new applied science aimed at improving the treatment of laboratory animals while advancing the quality of science in studies that use animals. They then introduced and defined the terms *replacement*, *reduction*, and *refinement* in order to minimize potential animal pain and distress in biomedical research. The European Directive 210/63 on the protection of animals used for scientific purposes and the following Italian transposition, *Decreto Legislativo 26/2014*, have embedded in the legal text the 3rs principle. According to *Decreto Legislativo 26/2014* before authorization is granted by the Italian Ministry of Health to researchers wishing to use animals in their studies, their projects have to be evaluated and approved by experts from *Istituto Superiore di Sanità*. When carrying out technical-scientific evaluations of the projects experts from *Istituto Superiore di Sanità* verify that researchers, applying for authorization to conduct animal research, will take into account opportunities for reduction, replacement and refinement and implement them in practise.