

Research project SG-2018-12365617

3R4Rabies: An innovative way to replace in vivo experiments for rabies diagnostic interlaboratory trials with sustainable in vitro systems

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Currently, thousands of mice are virally infected and sacrificed to prepare the panels to be tested by laboratories participating in interlaboratory trials (ITs) for rabies diagnosis. This project aims to validate innovative sustainable in vitro systems to either replace or reduce/refine in vivo experiments needed for interlaboratory exercise.

The proposed in vitro techniques are based on virus replication in several cellular systems, either established from immortalized cell lines or derived from brain of healthy donors. In addition, different methods to obtain rabies positive but non-infectious samples will be investigated, to increase safety and reduce costs for shipping the ITs panels.

A pilot rabies IT will be organized to finally validate the selected in vitro system against currently used in vivo procedures to prepare negative and positive samples to be included in the panel.