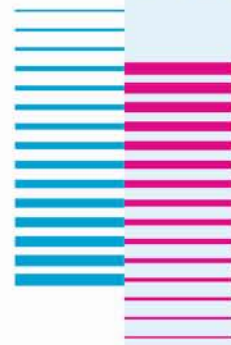


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## Project

Development of an animal-free batch testing method for alum-  
adjuvanted Rabies vaccines

Dr. Max Bastian, Paul-Ehrlich-Institut, Langen (Germany)

08/2013 – 01/2015



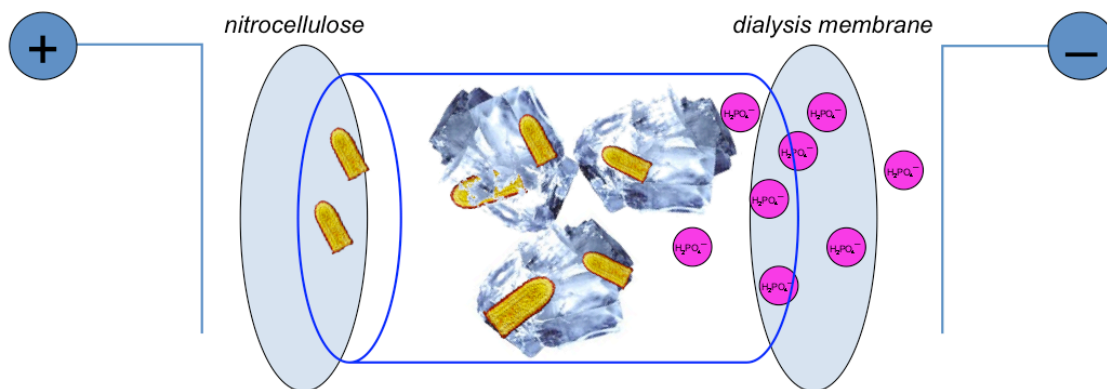
**3R** reduce  
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## Development of an animal-free batch testing method for alum-adsorbed Rabies vaccines

Since many years efforts are ongoing at the Paul-Ehrlich-Institute to develop modern batch testing methods for vaccines and immunologicals according to the 3R concept. This project aims to establish an animal-free test method for the antigen quantification of alum-adsorbed rabies vaccines. The challenge with alum-adsorbed vaccines is to detach the adsorbed immunogenic components from the adjuvant and make them available to immunochemical quantification. This will be achieved by electrochemical desorption followed by conventional immunoblot techniques. Due to its versatility the method can be applied on an entire array of different vaccines and has therefore the potential to replace a great number of animal tests.



**The principle of the electro-desorption method:** The aluminium-hydroxide adjuvanted vaccine is resuspended in an appropriate desorption buffer and filled into the desorption chamber. An electric field is applied. The antigens migrate to the anode and are immobilized on a nitrocellulose membrane, where they can be detected by conventional immunoblot.



## Project manager

### **Dr. med vet Max Bastian**

Born in 1973, studied veterinary medicine at Tierärztlichen Hochschule, Hannover (1993-1999). PhD at Schweizerischen Tropeninstitut Basel (2004), then Scientist at the Institutes for medical/clinical microbiology at the Universities of Erlangen and Ulm (2004-2008), since 2009 head of research group at the veterinary department of the Paul-Ehrlich-Institute.

## Team

### **Anna Geißler**

Born 1991, Training as biological laboratory assistant 2010-2013 at the University of Tübingen. Assistant at the veterinary department of the Paul-Ehrlich-Institute since August 2013.

## Institution

Paul-Ehrlich-Institut, Langen

## Duration

01.08.2013 - 31.01.2015