

ALTEX

ALTERNATIVES TO ANIMAL EXPERIMENTATION

Food for thought ...

Stephen F. Eisenman
**Criticizing animal
experimentation,
at my peril**

Research Article

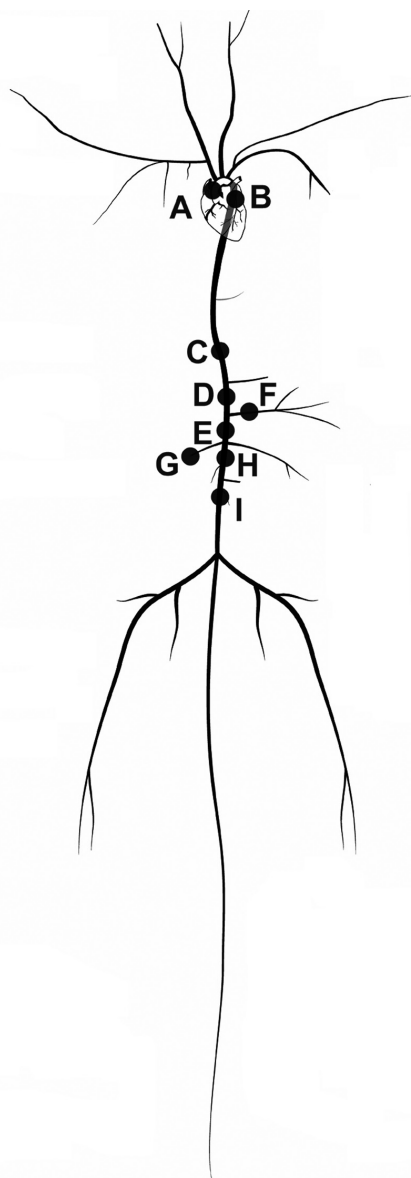
Lydia Aslanidou, Bram Trachet,
Philippe Reymond,
Rodrigo A. Fraga-Silva,
Patrick Segers and
Nikolaos Stergiopoulos

**A 1D model of
the arterial
circulation in mice**

Research Article

Maren Bernau, Prisca V. Kremer,
Lena S. Kreuzer, Daniela Emrich,
Elke Pappenberger,
Klaus Cussler, Andreas Hoffmann,
Miriam Leipzig, Walter Hermanns
and Armin Manfred Scholz

**Assessment of local
reaction to vaccines
in live piglets with
magnetic resonance
imaging compared
to histopathology**



Research Article

Claudia Skazik-Voogt,
Katrin Kühler, Hagen Ott,
Katharina Czaja,
Gabriele Zwadlo-Klarwasser,
Hans F. Merk, Philipp M. Amann
and Jens M. Baron

**Myeloid human cell lines
lack functional regulation
of aryl hydrocarbon
receptor-dependent
phase I genes**

Review Article

Caroline Vipond, Lucy Findlay,
Ian Feavers and Rory Care
**Limitations of the rabbit
pyrogen test for assessing
meningococcal OMV based
vaccines**

Review Article

Christian Lotz, Freia F. Schmid,
Angela Rossi, Szymon Kurdyn,
Daniel Kampik, Bart De Wever,
Heike Walles and
Florian K. Groeber
**Alternative methods
for the replacement of
eye irritation testing**

Calendar
Corners
News



**Dear readers,**

ALTEX starts into the New Year with an exciting compilation of manuscripts from the 3Rs field.

In his Food for thought ... contribution Stephen Eisenman, a professor of art history from Northwestern University, Illinois, describes his experiences that followed his inquiries, then as Faculty Senate President, into a request that his university no longer purchase research antibodies from a company that had been cited and was later penalized for violation of the Animal Welfare Act. Upon finding out what research antibodies are and how they can be produced, it appeared logical to him to suggest that the university move towards procuring recombinant antibodies for numerous scientific and also for ethical reasons. The ensuing backlash took Prof. Eisenman by surprise but also spurred him to find out more about how laboratory animals are held and treated. His descriptions of what he found led to a public outcry and cost him his position on the Senate.

The Research Articles in this issue include a paper by Lydia Aslanidou and colleagues presenting their computer model of the arterial system of mice. This will be a useful reference system on murine hemodynamics by which the effects of changes in physiology or anatomy can be investigated without the use of live mice. Maren Bernau et al. publish a second report on assessing the local reaction of live piglets to vaccination by magnetic resonance imaging (MRI). Following their proof of principle report published last year (*ALTEX* 32, 51-58), the group now compares MRI data with the standard histopathological assessment, with favorable results. The MRI method can significantly reduce the number of animals tested as the time course of the local reaction can be followed in repeated MRI scans performed on the same, sedated animals. Claudia Skazik-Voogt and colleagues investigate the expression and responsiveness of the aryl hydrocarbon receptor (AhR), which is involved in bioactivation, by cell lines used in *in vitro* approaches to assess skin sensitization hazard. The comparison to primary

human immune cells may indicate that some cell line approaches will have a more limited applicability domain for the detection of sensitizing substances.

A Review Article by Caroline Vipond et al. argues that the rabbit pyrogen test is unsuitable for assessing meningococcal outer membrane vesicle based vaccines and should no longer be employed for this purpose. The rabbit pyrogen test was developed to exclude fever-inducing contamination of injectables; however these vaccine products intrinsically contain fever-inducing endotoxins. Diluting the vaccines for testing confounds the purpose of the test. A second Review Article gives us the state of the art on the development of alternatives to eye irritation testing in rabbits. Christian Lotz et al. present the various approaches to replacing the Draize test in their different stages of development, including full thickness cornea models which promise to be able to categorize substances into all classes of eye irritants.

In the News we report on the measures the European Chemicals Agency (ECHA) is now taking to ensure that animal experiments are only performed for REACH as a last resort, the European approval of the alternative test for botulinum A toxin developed by Merz, and the Experimental Design Assistant launched by the NC3Rs to ensure that animal experiments are planned according to best practice. A number of prizes awarded toward the end of last year and the animal use statistics of Germany and the UK will also be of interest. CAAT, NICEATM-ICCVAM and IIVS bring you up to date with their activities in their respective Corners.

Much success with your efforts in the 3Rs field in 2016.

Sonja von Aulock
Editor in chief, ALTEX

Einladung zur
9. Tierversuchstagung des Schweizer Tierschutz STS

Ersatzmethoden – wohin?

Donnerstag, 3. März 2016

Kongresszentrum Hotel Arte
Riggenbachstrasse 10, 4600 Olten
09.45 - 16.30 Uhr

Anmeldung

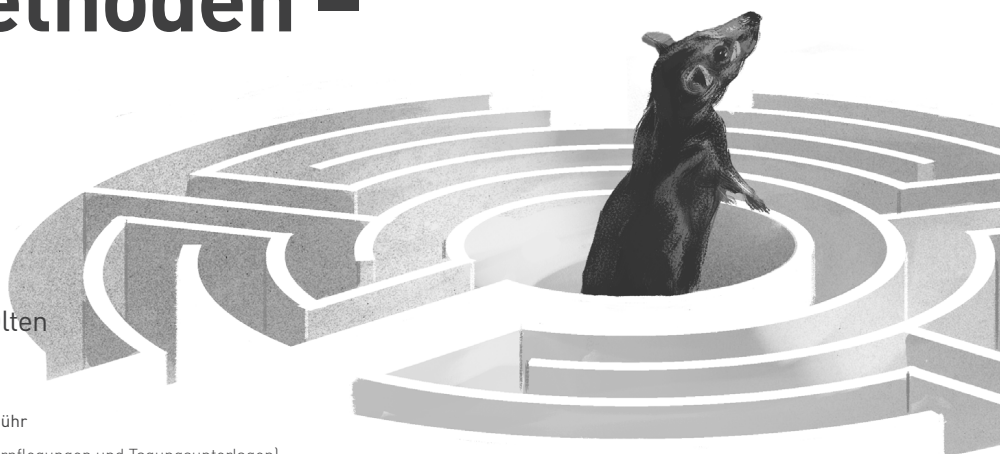
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www.tierschutz.com

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Französisch-Deutsch



Als Weiterbildungstagung (1/2 Tag) für das Fachpersonal für Tierversuche von der Vereinigung der Schweizer KantonstierärztInnen (VSKT) anerkannt.

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