

Veterinary Medical Writing

SECTION EDITOR



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Editorial

For this issue of Veterinary Medical Writing, Cemile Jakupoglu and Jennifer Freymann draw on their expertise in veterinary regulatory writing and put the spotlight on the las-interactive website. This online resource, developed from a platform initially conceived at the Philipps University of Marburg in Germany, is a rich database of information and training in the handling and regulations of animals used in clinical trials. Based firmly on the 3Rs principles

of replacement, reduction, and refinement, these educational resources ensure that anyone involved in the use of animals in clinical trials is kept up to date with the latest advances, which keep animal welfare at the core.

In this edition of From the Horses' Mouth, the keyword is "essential"; not only do we report, at last, on the publication of a global list of essential veterinary medications, but we are also invited to view veterinarians as essential workers, and we hope that is an idea that takes hold.

This edition is also my last one as the section editor. It has been a pleasure to be at the helm for the last three years, but the time has come to inject some fresh ideas and perspective, so I am delighted to hand the baton over to not one, but two, colleagues: Luiza Ventura and Jeff Blair, DVM. I know the section is in very safe hands and I am very excited to see what direction this team of veterinary medical writers takes it in.

Louisa

Spotlight on www.LAS-interactive.de: Information for animal experimentation and a useful resource for veterinary medical writers

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According to the EU Animal Protection Directive (Directive 2010/63/EU)¹, anyone who is involved in animal experimentation needs to be adequately trained. Depending on your role in animal experimentation (i.e., plan and design experiments, perform procedures, and look after and/or humanely dispatch animals), very specific competencies are needed. Online resources are valuable tools to cover the theoretical part of this training; one of them is the website www.las-interactive.de² (Figure 1). LAS-interactive.de combines two platforms: the fee-based training platform LAS campus and the freely accessible platform vtk online. The LAS campus is typically accessed by people who need to obtain proof of mandatory training before they can start working with laboratory animals, and they can get their certification via this platform.



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Here, we should mention that courses on animal welfare are also offered by other institutions such as FELASA (Federation of European Laboratory Animal Science Associations). In this article, we will focus on the vtk online ("Versuchstierkunde", German for "laboratory animal science [LAS]") platform, which is referred to as the LAS platform. After registration this platform can be

accessed without any fees.

Initially developed at the Philipps University of Marburg, Germany, and founded by DFG (Deutsche Forschungsgemeinschaft), the LAS platform provides in-depth information on different topics related to laboratory animal science in German, English, and French. We feel that the LAS platform can be a helpful source not

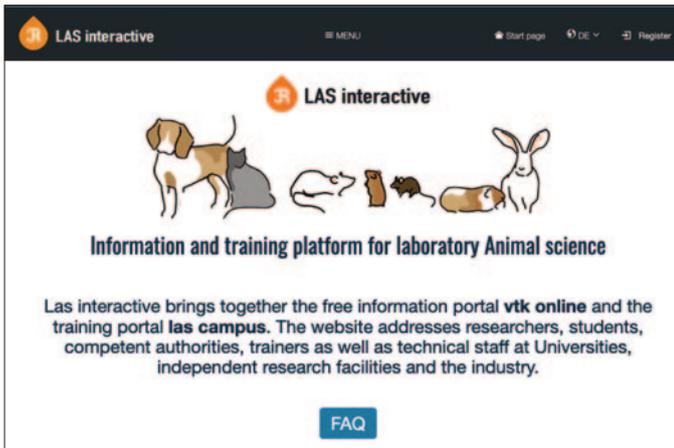


Figure 1. LAS logo including the most common animal species used in animal experimentation. April 1, 2024.

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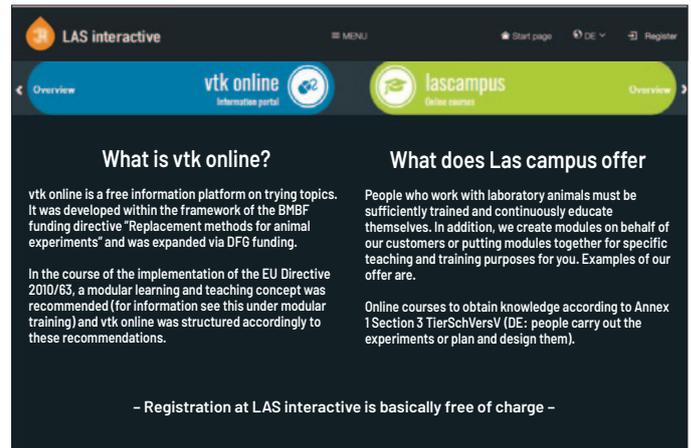


Figure 2. LAS interface with the free information platform vtk online and the fee-based training section “LAS campus”. April 1, 2024.

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only for researchers, students, competent authorities, and technical staff at universities, research facilities, or industry, but also for medical writers, particularly veterinary medical writers.

How to navigate the FREE LAS platform

In the following paragraphs, we will give you an insight into the information provided on the LAS platform. Once you have registered to LAS interactive and logged in, you are welcomed to the LAS interactive homepage.

Media centre

You can choose from numerous educational videos. For example: handling, blood sampling, or substance administration techniques; detailed information on the anatomy of different laboratory animal species in the image gallery; or learning about alternative methods (Figure 2). In the interactive content, you can find information on “who is permitted to work with laboratory animals” according to German and EU legislation.

Training modules

If you are looking for more intensive and detailed training, you can start any of the VTK training modules. Click on “overview” on the blue “VTK online Information portal”. This currently offers access to self-learning content divided into core modules that include: national legislation; ethics; animal welfare and management (including pain recognition and euthanasia); function-specific modules (e.g., species-specific minimal invasive procedures); task-specific modules (e.g. anaesthesia, analgesia, and surgery), and additional

modules (e.g., introduction to genetically modified animals). (Figure 3).

You do not have to participate in studies involving animals to benefit from those modules, particularly if you are new to the area of laboratory animal sciences; these modules can be very helpful for your next writing job.

A laboratory animal compendium and speed learning opportunity

No registration is needed to use the LASed learning tool, a subproject of LAS³ or the speed learning⁴ section. The LASed learning tool is a great resource for key data of common laboratory species, and you will find data on: physiology (e.g., body weight, heart and respiration rate); blood parameters (e.g., blood volume, haematology and clinical chemistry); reproduction (e.g., litter size, weaning age, sexual maturity); breeding; as well as a legal requirement for animal husbandry can be compared for any species you are interested in. An example is shown in Figure 4. In the speed learning section,⁴ you can improve your knowledge of mouse histology in the form of interactive quizzes. Different anatomical areas as well as different magnifications are available, and the level of difficulty can be adjusted.

Knowledge improves animal welfare

Profound knowledge and skills are the basis for ensuring high-quality animal welfare, regardless

of the field of research. Through providing training materials and content, websites like LAS-interactive.de improve animal welfare and support the core ethical principle of animal use in biomedical trials. The concept of the 3Rs (**replacement** = methods that avoid or replace the use of animals; **reduction** = methods that minimise the number of animals used per experiment, **refinement** = methods that minimise suffering and improve animal welfare) was first

published by William Russel and Rex Burch back in 1959. It is embedded in EU Directive 2010/63 on the protection of animals used for scientific purposes.

Virtual education material cannot fully replace animals used in training. However, a video can be watched repeatedly until you feel comfortable starting practical training, while the animal in the video was just handled once. Furthermore, a student who has prepared well on the theoretical aspects is more likely to be confident during the practical training, reducing stress for the animals and improving experimental results.

Although we medical writers are typically not practically

involved, we are very likely to be the ones responsible for report writing or publication. A platform like LAS-interactive.de can be a very valuable source for us to improve our knowledge and, by extension, our work involving laboratory animal species, associated regulations, or

Virtual education material cannot fully replace animals used in training. However, a video can be watched repeatedly until you feel comfortable starting practical training.

Welcome to vtk online

The modular structure of vtk online is guidance by EU recommendations for training in animal experiment work. [Show details.](#)

CORE MODULES (C)	FUNCTION-SPECIFIC MODULES (F)	TASK SPECIFIC MODULES (T)	ADDITIONAL MODULES (A)
C 01 Animal welfare law Introduction to animal welfare legislation to module	F 07 Methods without anesthesia Presentation of minimally invasive methods and their implementation to module	T20 Anesthesia and analgesia I Content on anesthesia and analgesia for minor procedures in laboratory animals to module	A 01 History Summary of the historical context of animal experiments to module
C 02 Ethics and 3R Introduction to basic ethical principles relating to animal experiments and the 3Rs - refinement, reduction and replacement to module	F 09 Ethics and 3R Level 2 Ethical questions on animal experiments and alternative and supplementary methods to module	T 21 Anesthesia and analgesia II Content on anesthesia and analgesia or surgical or lengthy procedures in laboratory animals (advanced) to module	A 02 Blood sampling methods Blood sampling procedures that sometimes require anesthesia to module
C 03 Laboratory animal biology General and species-specific biology of laboratory animals to module	F 10 Design of procedures and projects Approach, database search and biometric planning study in the context of the application to module	T 22 Surgical interventions The module contains basic information on the approach to surgical procedures. to module	A 03 Genetically Modified Animals (GMA) Introduction to genetically modified animals (GMAs) to module
C 04 Laboratory animal housing General and species-specific information on the husbandry of laboratory animals to module			A 04 Telemetry Collection of telemetric data in animal experiments to module

Figure 3. Excerpt of learning modules that are accessible for free, April 2024.

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different experimental procedures.

It is important to point out that other resources are available for medical writers, such as 3R SMART,⁵ an information and training platform for methods to replace and supplement animal experiments, which is aimed at a lay audience as well as scientists and technical personnel. This initiative is financed by the German Federal Ministry of Education and Research (BMBF) and developed in collaboration with the Foundation Veterinary University of Veterinary Medicine, Hanover, and the Philipps University of Marburg, both in Germany. Online resources from other countries were not in the scope of this article. Knowledge on laboratory animal science shall enable medical writers to improve their communication and cooperation with practical investigators with overall positive impact, especially on animal welfare.

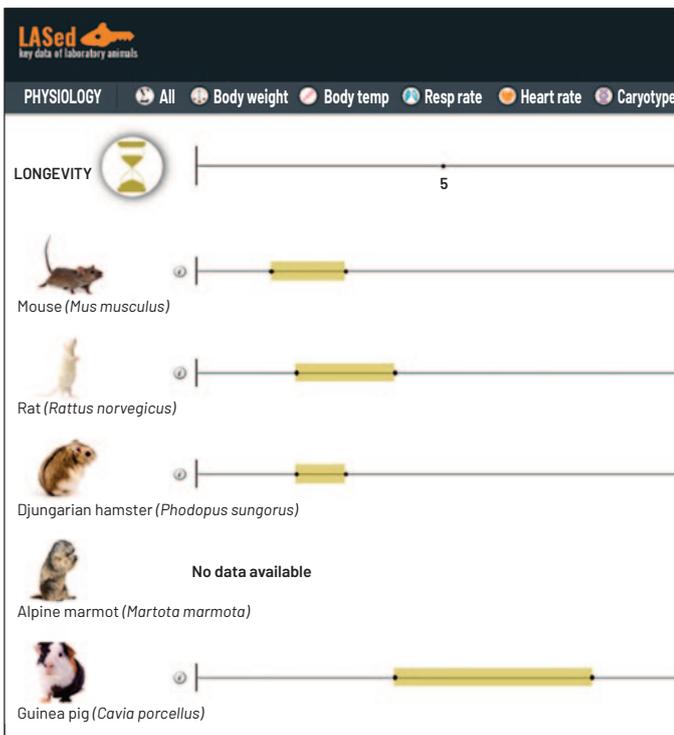


Figure 4. Longevity (in years) of mouse, rat, hamster, marmot, and guinea pig as an example of the data provided in the physiology section of LASed. April 1, 2024.

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Disclaimers

The opinions expressed in this article are those of the authors and are not necessarily shared by their employer or EMWA.

Disclosures and conflicts of interest

The authors declare no conflicts of interest.

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From the Horse's Mouth

The quarterly pick of the news from the veterinary world

During the COVID-19 pandemic, veterinarians around the globe were working above and beyond to maintain animal health and welfare services during lockdown. In many jurisdictions, however, members of the veterinary profession (except those working in food production) were not designated as “essential workers”. This meant that they were denied certain protections, such as priority testing and early access to vaccines, that other frontline workers were granted. This was despite working with similar risks and under their usual statutory requirements to provide emergency care.

Perhaps, then, The World Veterinary Association's (WVA) latest theme to celebrate 2024 World Veterinary Day on April 27: “Veterinarians are essential health workers”, according to *The American Veterinary Association (AVMA) News* on March 11, 2024, will change society's perspective of the profession. This theme highlights the critical role veterinary professionals play in ensuring public health and safety as a tribute to their efforts in creating healthier communities and environments. According to the WVA, “Veterinarian's competencies must be regarded as an essential and integral part of health at large. The application of veterinary science contributes not only to animal health and well-being but also to humans' physical, mental, and social well-being.”

The World Veterinary Association (WVA) announced the first global list of essential veterinary medicines for food-producing animals on March 18, 2024. This initiative, part of a collaboration between the WVA and the animal welfare organisation Brook,

aims to standardise a catalogue of safe and effective medications and vaccines for veterinary use worldwide. Furthermore, it is a tool to combat the growing threat of antimicrobial resistance (AMR) and bolster efforts towards pandemic prevention.

Dr Olatunji Nasir, WVA's Pharmaceutical Stewardship Working Group Chair, stated, “As veterinarians, we are gatekeepers of the next pandemic because of the profound roles we play in the control of zoonoses; this is a responsibility that we share with authorities and agencies in our various jurisdictions. Together, we stamp our feet in the one-health

pathway.” A survey of veterinarians by the World Health Organization (WHO) reveals that 80% of respondents felt that difficulties in obtaining veterinary medicines limit veterinarians' capacity to manage animal health and welfare. The newly released list addresses this challenge, offering a blueprint from countries that will be able to tailor their essential medicines list based on prevalent diseases and pathogens in their respective regions. Such customisation will enhance zoonotic disease control and aid in preventing future pandemics. The list of essential veterinary medicines is now accessible on the WVA's website.

The Royal Society for the Protection of Animals (RSPCA) in the UK has launched a new campaign to raise public awareness about the welfare issues faced by brachycephalic dog breeds, the *Veterinary Times* reported on March 25, 2024. The hard-hitting “Born to Suffer” campaign, which features photos of prone bulldogs and pugs with nasal cannulae fitted for oxygen supplementation, is intended to persuade would-be brachycephalic dog owners to reconsider their choice of pet and, therefore, drive down the demand for dogs with this extreme morphology. Vanessa Howie, the RSPCA's head small animal veterinarian, has cited the “relentless exposure” of dogs with flattened faces being used in social media and marketing so that it has “normalised what is totally abnormal”.

In addition to raising awareness amongst the pet-owning public, the charity will also challenge policymakers to make commitments to introduce tougher legislation to help reduce the burden of health problems experienced by these breeds.



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