



Abstracts of the 11th World Congress, Maastricht, 2021

Volume 9, No. 1
ISSN 2194-0479
(2021)

ALTEX Proceedings

Jos Kleinjans
and
Pascalie Van Loo
Welcome



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Disease



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Virtual class on alternative methods in toxicology

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In the second semester of the AY 2019/2020, started a pilot on-line version of the course “Alternative Methods in Toxicology”, a mandatory module in the master curriculum Veterinary Biotechnology Sciences, first year, in the Università degli Studi di Milano.

The module, 4 credits/30 hours, is focused on 3R concept, alternative test methods and new approach in toxicology, stand-alone methodologies, Integrated Testing Strategy, validation. The module is in English and is designed to provide 3 hours per week, 18 hours lectures and 12 hours practical activity.

Students are weekly informed by the teacher on the scheduled lectures and course activities thorough a notice-board present on an on-line platform (<https://fcalonimat.ariel.ctu.unimi.it/v5/home/Default.aspx>), specifically dedicated. The students are invited to follow the video lessons provided according to a scheme uploaded on the platform, and subsequently to take part to a video conferencing in a Virtual Class for a synchronous action with the teacher, entering with a code, where an open and dynamic discussion starts on the topic of the day. Other didactic material, i.e., articles, slides, videos, is also available for the students and shared during the Virtual Class. Corner, forum and meeting are planned, and external experts are also invited to attend. The Virtual Class is also the place where students give suggestions on possible implementation and strategies on alternative methods and identify some topic priorities.

The Virtual Class seems to evoke an evident and stimulating interest from the student perspective, demonstrated by the continuous and active participation.

At the end of the course will be required to the student to fill a questionnaire.

Acknowledgment: We acknowledge the students of the first year of Veterinary Biotechnology Sciences Course, Università degli Studi di Milano AY 2019/2020

Presentation: Posters

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Nearly 200 million animals used in medical research worldwide

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The use of live animals in experiments remains controversial. However, there is a lack of reliable data on the scale of animal testing. Almost 80% of the world's animal using countries do not publish the numbers they use.

In 2005 Cruelty Free International set about trying to provide an overall estimate for the worldwide use of animals in harmful research. We could find only 37 countries, mostly European, which provided annual statistics. We created a simple regression model, using publication of animal-based research as a proxy for the number of animals, to extrapolate figures for non-reporting countries. For the year 2005 we estimated approximately 115 million animals per year were used worldwide.

Ten years later we set about to update the statistic (Taylor and Alvarez, 2019). Unfortunately, the number of reporting countries had not changed and this time the estimate for 2015 was 192 million animals per year. Most of the increase could be explained by increased science publications from Asian countries- meaning that our estimates for their use of animals in research are probably now more accurate.

We estimate that China is the greatest user of animals in experiments (20.5 million), followed by Japan (15 million) and the United States (14.6 million). The United Kingdom, Germany and France are also in the top ten, being the largest users in Europe with around two million animals each. We also estimate there were over 200,000 tests on dogs and nearly 160,000 tests on monkeys in 2015.

We hope our new estimate will encourage greater efforts to replace and reduce animal use whilst also acting as the baseline from which to measure success.

Reference

Taylor, K. and Alvarez, L. R.(2019). An estimate of the number of animals used for scientific purposes worldwide in 2015. *Altern Lab Anim* 47, 196-213. doi:10.1177/0261192919899853

Presentation: Posters