



standards and ethical committees for use of animals in education and research.

19. Make the workshop an annual event.

Students' workshop

The program for the session included discussions on topical issues such as:

- Classification and effectiveness of alternative methods, techniques and approaches in education and training
- Teaching objectives
- Elnady preservation technique
- Training of Upper Respiratory Endoscopy in the horse using preserved head and neck
- Multimedia alternatives and repository
- InterNICHE technologies and alternatives

Appreciation

The participants of the workshop are grateful to the workshop sponsors and partners, LUSH and InterNICHE, for their support in putting together the workshop. Many thanks also goes to Egerton University, the Government of Kenya, ANAW and other institutions represented at the workshop. Special thanks go to the facilitators for the workshop and chairs of sessions that included:

- Prof. Fawzy Elnady, Professor of Anatomy and Embryology in the Department of Anatomy and Embryology, Faculty of Veterinary Medicine, Cairo University, Egypt

- Prof. Njenga Munene, DVC Administration and Finance Egerton
- Prof. John Mwangi, DVC Research & Extension
- Prof. Charles Muleke, Dean, Faculty of Veterinary Science and Medicine
- Dr Ashour K. Khalifa, Ministry of Interior, Equine Department of Police General Security, Tripoli, Libya
- Dr Rodi O. Ojoo, Faculty of Veterinary Medicine, University of Nairobi
- Dr Kirui Gilbert, Lecturer, University of Nairobi
- Dr Joan Magero, State Department of Livestock Services
- Dr Francis Njonge, JKUAT
- Nick Jukes, Coordinator, InterNICHE
- Mr Wachira Kariuki, PAAWA
- Dr Kisipan, Dr Eva Mwhia and Dr Jesse Thuo (Lecturers, Egerton University)
- Samuel Theuri, Director of Programs, ANAW
- Dr Maryanne Wangari, Program Manager, ANAW

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Workshop report

3Rs in Education

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On November 25, 2015 a meeting was held at the University of Agricultural Sciences and Veterinary Medicine (USAMV) in Cluj-Napoca, Romania, with representatives of the Romanian Center for Alternative Test Methods (ROCAM), the Italian Platform on Alternative Methods (IPAM) and the Italian Association of *in vitro* Toxicology (CELLTOX).

Promoting and adopting the 3Rs (Replacement, Reduction and Refinement) in education is an issue of great importance and it is necessary to find common European strategies to involve experts, university professors and students sensitive to this topic (Daneshian, 2011; Sachana, 2014). The main objective of the meeting was to implement, develop and promote alternative



methods in the area of toxicology in Romania and to identify opportunities for future projects and collaborations. The event was attended by students, veterinary toxicologists, biochemists and other members of the academic staff of the host institution.

Lectures on alternative testing methods and other aspects of veterinary toxicology were presented by Prof. **Francesca Caloni**, University of Milan, and focused on major international trends in the area of the 3Rs and on *in vitro* toxicology in veterinary science. Recent activities of CELLTOX were also presented, including two meetings to disseminate novel alternative methods in the field of liver toxicology and on integrated testing strategies in toxicology. CELLTOX is very active in organizing courses, meetings and workshops on recent advances in *in vitro* toxicology, especially directed at young researchers.

Dr **Isabella De Angelis**, in video-conference, reviewed IPAM's activities in 3Rs education. Since its establishment, IPAM has always considered the dissemination of the model and the culture of 3Rs a priority, particularly among young people, promoting educational and training initiatives and disseminating information on scientific progresses of alternative approaches. Recently IPAM organized a didactic exhibition project, "Science and Awareness: a journey inside the 3Rs", in which about 40 posters guided the visitor through the theoretical and practical evolution of research methods based on 3Rs principles in different biomedical research areas. This exhibition was presented in Rome last September but was designed and set up as an itinerant exhibition and will be on display in many universities and research institutes in Italy.

Prof. **Carmen Socaciu** (University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, ROCAM), Prof. **Adrian Nechita Oros** (University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, ROCAM), Prof. **Adela Pinte**a (University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, ROCAM), Dr **Lucian Farc**al (BIOTOX Srl/Douglas Connect GmbH, ROCAM) and Dr **Andras-Laszlo Nagy** (University of Agricultural Sciences and Veterinary

Medicine, Cluj-Napoca, ROCAM) presented the present status of ROCAM and the situation of alternative test methods in the area of the 3Rs in the host institution and in Romania, and presented further plans of the ROCAM Center and of its working groups. The ROCAM Center will continue to promote alternative methods and the 3Rs approaches in Romania and will pursue the involvement of representatives from the chemical and pharmaceutical industry as well as the regulators.

After the presentations, the three organizations along with the host institution representatives established future directions of collaboration, such as different training sessions in the area of alternative methods, and planned the start of collaborative research projects and of scientific disseminating activities.

References

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