



ICLAS

International Council for Laboratory Animal Science

Patri Vergara
ICLAS President



ICLAS

**Structure and programmes contributing to
develop laboratory animal science in a global
context**

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History

- Initiative of UNESCO, CIOMS and IUBS
- Created 1956: International Committee on Laboratory Animals
- Collaboration with WHO since 1961
- Since 1979: International Council for Laboratory Animal Science
- In 2014: membership in 42 countries across the Globe



Membership

National Members

Countries, to be represented by a person appointed by an appropriate national body, concerned with the direction and encouragement of scientific research, within the scope of interest of ICLAS, and which are recognized as such by the Governing Board. *Eligible for Governing Board*



Membership

Scientific/Union Members

Laboratory animal science associations, scientific societies/scientific unions and other acceptable organizations which contribute to the work of ICLAS and which are recognized as such by the Governing Board. *Eligible for Governing Board*



Membership

Institutional Members

Universities, research institutes, or other non-commercial organizations that support the aims of ICLAS and are recognized as such by the Governing Board. *Eligible for Governing Board*



Membership

Associate Members

Organizations in sympathy with the aims of ICLAS, which may be admitted to Associate Membership on payment of such annual dues and continue their membership on such conditions as the Governing Board may from time to time prescribe.



Membership

Affiliate Members

Organizations with which ICLAS has reciprocal relationship (i.e AFLAS).



Aims

- To promote and coordinate the **development of Laboratory Animal Science throughout the world** and as a matter of priority in developing countries;
- To promote **international collaboration** in Laboratory Animal Science;
- To promote quality definition and monitoring of Laboratory Animals;
- To **collect and disseminate information** on Laboratory Animal Science;
- To promote **world-wide harmonization** in the care and use of laboratory animals;
- To promote the **humane use of animals in research** through recognition of ethical principles and scientific responsibilities;
- To promote the **'3R' Principles**



ICLAS Scientific Meetings

Every 4 years, along with the General Assembly
In conjunction with other associations

- Seattle 2003 – AALAS
- Como 2007 – FELASA, AISAL
- Istanbul 2011 – LASA Turkey
- **Montreal 2015 - CALAS**



ICLAS Governing Board meetings and annual General Assembly

Every year, at one of the big meetings in each region:
Las 4 years:

- 2011 – AALAS San Diego
- 2012 – AFLAS Bangkok
- 2013 – FELASA Barcelona
- 2014 – ACCMAL FESSACAL Costa Rica



ICLAS Regional Programs

Regional committees to promote meetings, fellowships, travel awards

- Africa
- Americas
- Asia
- Australia & New Zealand
- Europe



ICLAS Regional Programs

All members of the Region are part of the ICLAS Regional Committee

This is the most powerful instrument to develop actions at a regional level.

Every year allocated budget for each region

Examples: support to the organization of meetings, courses, scholarships



ICLAS's role in training

Provide funding and support

The proposal must have **more than** a local perspective

For instance:

- A plan for several years,

- Several institutions

- Other sources of funding

The proposal must be presented and supported by an ICLAS member



ICLAS Scholarship Program for Veterinarians in Laboratory Animal Science and Medicine

Up to 6,000 € scholarship for veterinarians to follow formal training

The program must:

- be affiliated with a formal institution of higher learning (university, veterinary college, training institute);
- have an on-line/modular education format;
- require only a limited time spent physically at the institution offering the program;
- Compatible with a full time job



Eligible Programs

1. Canada*: Certificate in Laboratory Animal Medicine www.LAM-CDN.OpenEd.uoguelph.ca

2. USA*: Certificate in Laboratory Animal Medicine (Program only accepts veterinarians with a United States license)
www.LAM.OpenEd.uoguelph.ca

3. USA: Eastern Virginia Medical School Laboratory Animal Science Master's Program www.evms.edu/las

4. Mexico*: Certificate in Laboratory Animal Medicine www.LAM-LA.OpenEd.uoguelph.ca

5. India*: Certificate in Laboratory Animal Medicine, Kerala Veterinary and Animal Sciences University (Starting in Summer, 2014)
www.kvasu.ac.in or
www.LAM-IN.OpenEd.uoguelph.ca

6. Spain: Master of Laboratory Animal Science and Welfare
pagines.uab.cat/anilab/content/programa-0

7. Denmark: Master of Laboratory Animal Science <http://mlas.ku.dk/>

*In affiliation with the University of Guelph, Canada.



Supported by

IACLAM

ACLAM

AAALAC International

CALAS (Canada)

AALAS

ECLAM

July 2015 : First awardee

We need sponsors and candidates

Next call December 2014 (if we get funding)



Ethics and animal welfare committee

Guidelines for researchers

Guidelines for editors and reviewers

Objective: to promote the responsible use of animals and the highest ethical principles



ICLAS Harmonization of Guidelines

- Harmonization of Animal Care and Use Guidance (Science 2006)
- International harmonization of the ethical review of proposals for the use of animals (www.iclas.org)
- International harmonization of the education and training of animal users in science (www.iclas.org)
- International Guidance concerning the production, care and use of genetically-altered animals

International Standard Setting

> Overview

▼ Terrestrial code

> Access online

> Terrestrial manual

> Aquatic code

> Aquatic manual

> Specialists commissions & groups

> Implications of private standards

Terrestrial Animal Health Code

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CHAPTER 7.8.

USE OF ANIMALS IN RESEARCH AND EDUCATION

Preamble: The purpose of this chapter is to provide advice and assistance for Member Countries to follow when formulating regulatory requirements, or other form of oversight, for the use of live [animals](#) in research and education. Wherever the term "research" is used, it includes basic and applied research, testing and the production of biological materials; "education" includes teaching and training. A system of animal use oversight should be implemented in each country. The system will, in practice, vary from country to country and according to cultural, economic, religious and social factors. However, the OIE recommends that Member Countries address all the essential elements identified in this chapter in formulating a regulatory framework that is appropriate to their local conditions. This framework may be delivered through a combination of national, regional and institutional jurisdictions and both public sector and private sector responsibilities should be clearly defined.

The OIE recognises the vital role played by the use of live [animals](#) in research and education. The OIE Guiding Principles for Animal Welfare state that such a use makes a major contribution to the wellbeing of people and [animals](#) and emphasise the importance of the Three Rs (see Article 7.8.3.). Most scientists and members of the public agree that the [animals](#) should only be used when necessary; ethically justified (thereby avoiding unnecessary duplication of animal-based research); and when no other alternative methods, not using live [animals](#), are available; that the minimum number of [animals](#) should be used to achieve the scientific or educational goals; and that such use of [animals](#) should cause as little pain and/or distress as possible. In addition, animal suffering is often recognised separately from pain and distress and should be considered alongside any lasting harm which is expected to be caused to [animals](#).

The OIE emphasises the need for humane treatment of [animals](#) and that good quality science depends upon good [animal welfare](#). It is the



INTERNATIONAL GUIDING PRINCIPLES

FOR

BIOMEDICAL RESEARCH INVOLVING ANIMALS

DECEMBER 2012

ICLAS Working Group on Harmonization: International guidance concerning the production care and use of genetically-altered animals

M Rose¹, J Everitt², H Hedrich³, J Schofield⁴, M Dennis⁵,
E Scott⁶ and G Griffin⁷

Laboratory Animals
47(3) 146–152
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Abstract

Replacement, Reduction and Refinement, the 'Three Rs' of Russell & Burch, are accepted worldwide as fundamental to the ethics of animal experimentation. The production, care and use of genetically-altered animals can pose particular challenges to the implementation of the Three Rs,¹ necessitating additional considerations by those responsible for overseeing the ethical use and appropriate care of animals involved in science. The International Council for Laboratory Animal Science brings representatives of the international laboratory animal science community together to recommend acceptance of guidance documents. The harmonization of guidance concerning genetically-altered animals was seen as a priority because of the increasing globalization of research involving these animals.



ICLAS Animal Quality Network

Established in 2006 as a joint initiative of ICLAS and laboratories involved in the health and/or genetic monitoring of laboratory animals.

- improve the quality of animals used in research;
- raise awareness of the importance of high quality laboratory animals among the scientific community.



ICLAS Animal Quality Network

Network Current Members	
Naoko Kagiya (ICLAS Vice-president)	Central Institute for Experimental Animals, Japan
William Shek	Charles River Laboratories (RADS), USA
Werner Nicklas	German Cancer Research Center, Germany
Hideki Katoh	Institute for Experimental Animals, Hamamatsu University School of Medicine, Japan
Esther Schoondermark van de Ven	QM Diagnostics, Radboud University, Netherlands
Lela K. Riley	Research Animal Diagnostic Laboratory, RADIL-IDEXX, USA
Ana Perez	Taconic, USA
Jim Fahey	The Jackson Laboratory, USA
Nobuhito Hayashimoto	Central Institute for Experimental Animals, Japan
Patri Vergara, (Chair & ICLAS President)	Veterinary Faculty, Universitat Autònoma de Barcelona, Spain



ICLAS Animal Quality Network

Health Monitoring

Genetic Monitoring



ICLAS Animal Quality Network

Performance Evaluation Program for Diagnostic Laboratories (PEP)

Established in 2007: program designed to enable diagnostic laboratories worldwide to monitor the sensitivity and specificity of their health monitoring assays.

Any laboratory can participate.



Performance Evaluation Program for Diagnostic Laboratories (PEP)

Process

- Serum and microbiological specimens are prepared and confirmed by Network laboratories.
- Specimens sent to Distribution Center (Universidad Autonoma Barcelona, Spain)
- Specimens are sent as unknown samples to subscribing participating laboratories for analysis, which enables them to self-asses their diagnostic performance.
- The program is one of self assessment - participating laboratories are not required to submit any reports of their results to ICLAS or any other agency.



Performance Evaluation Program for Diagnostic Laboratories (PEP)

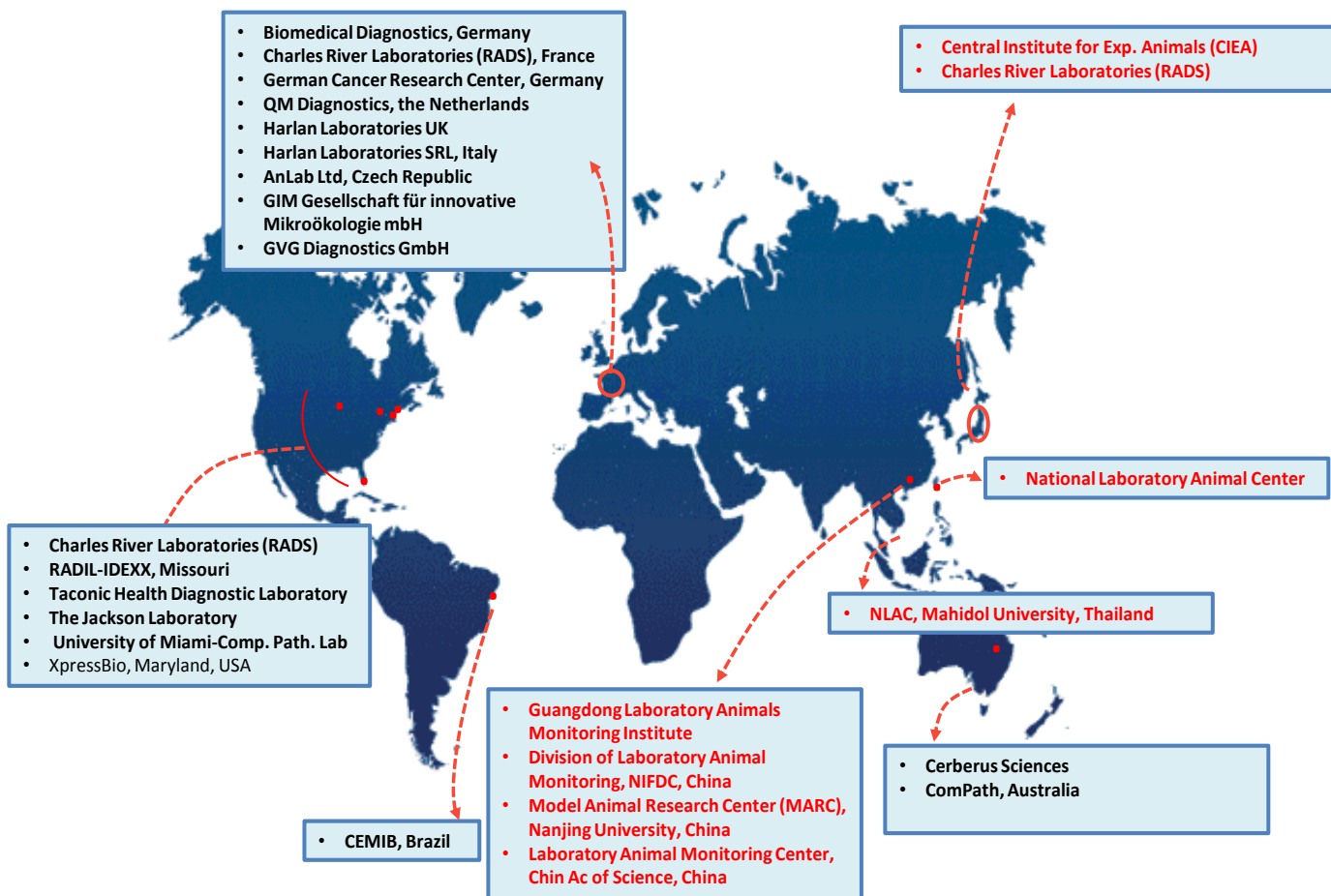
Benefits

1. **Improved Diagnostic Performance:** use of a scientifically robust program to help diagnostic labs monitor sensitivity and specificity of their health monitoring assays.
2. **Support and advice:** access to expert help and advice from Network Laboratories.
3. **Quality assurance:** enables participating labs to implement a QA program
4. **Improvement of animal quality:** participating labs contribute to the improvement of animal quality in research institutions



Performance Evaluation Program for Diagnostic Laboratories (PEP)

2013 Participating Laboratories





ICLAS Animal Quality Network

Genetic Quality Monitoring Program (GQMP)

Identified needs:

- to address how to increase **awareness** of the problem
- to provide **training** to improve the knowledge of genetic and phenotype characteristics of the main rodents strains and finally,
- to provide **tools** to perform genetic monitoring in an effective way.



ICLAS Animal Quality Network

Genetic Quality Monitoring Program (GQMP)

Focus:

genetic monitoring of rodents (mice and rats), both inbred and outbred (or closed colony animals)



ICLAS Animal Quality Network

Genetic Quality Monitoring Program (GQMP)

Actions: Workshops, Seminars, Presentations

ICLAS LAQ Network offers to organize workshop, sessions etc. at any scientific congress program



ICLAS Animal Quality Network

Genetic Quality Monitoring Program (GQMP)

Actions: Publications to promote awareness

Mammalian Genome

January 2013,

[Open Access](#)

The case for genetic monitoring of mice and rats used in biomedical research

James R. Fahey, Hideki Katoh, Rachel Malcolm, Ana V. Perez



Download PDF (187 KB)



View Article

Abstract

Currently, there is the potential to generate over 200,000 mutant mouse strains between existing mouse strains (over 24,000) and genetically modified mouse embryonic stem cells (over 209,000) that have been entered into the International Mouse Strain Resource Center (IMSR) from laboratories and repositories all over the world. The number of rat strains is also increasing exponentially. These mouse and rat mutants are a tremendous genetic resource; however, the awareness of their genetic integrity such as genetic background and genotyping of these models is not always carefully monitored. In this review, we make a case for the International Council for Laboratory Animal Science (ICLAS), which is interested in promoting and helping academic institutions develop a genetic monitoring program to bring a level of genetic quality assurance into the scientific interchange and use of mouse and rat genetically mutant models.



Share



Within this Article

- » Background
- » How do you establish and maintain rodent breeding colonies of high genetic quality?
- » How do you confirm the identity of inbred rats and mice?
- » How do you confirm the identity of outbred rats and mice?
- » What can institutions that are not commercial or central rodent distribution centers do to train personnel and implement a genetic monitoring program?
- » Conclusions
- » References
- » References

Fahey JR, Katoh H, Malcolm R, Perez AV.

The case for genetic monitoring of mice and rats used in biomedical research.

Mamm Genome. 2013 Apr;24(3-4):89-94.



ICLAS Animal Quality Network

Genetic Quality Monitoring Program (GQMP)

Future Plans:

Specialized training

At Network members institutions



ICLAS Animal Quality Network

Genetic Quality Monitoring Program (GQMP)

Future Plans:

Development of a self assessment Genetic Quality Program

Steps:

- Collection of main mice and rat inbred strains
- Isolation of DNA
- DNA characterisation by Network labs
- DNA bank
- DNA sent on request to subscribing institutions



Summary

**ICLAS membership allows participation in
Americas Regional Committee:**

Define priorities

Support Education & Training

Laboratories and Institutions:

Institutional members of ICLAS

**Participating laboratories in PEP and other
ICLAS programs**



Thank you

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