



TAIWAN
2023 WVAC
38th WORLD VETERINARY ASSOCIATION CONGRESS
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Pursuing a Career in Laboratory Animal Medicine – A Global View

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Global Director

AAALAC International

April 28, 2023



Conflict of interest

X	No, nothing to disclose
	Yes, please specify:

Unless otherwise noted, the information in this presentation does not represent the views of AAALAC International.

AAALAC International Vision & Mission



Drew Beamer -Unsplash

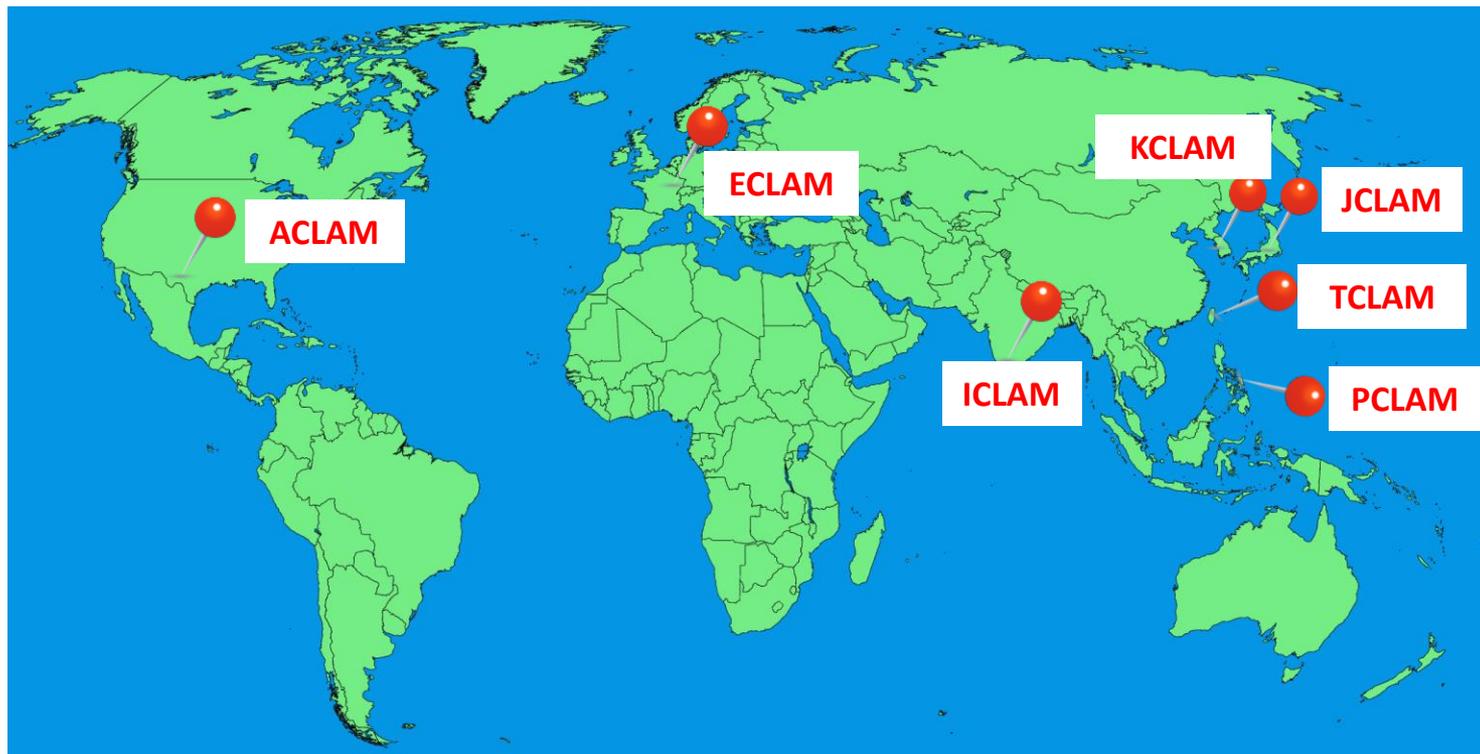
**Vision: A world where excellence
in animal welfare and science
converge.**

**Mission: AAALAC International
improves the welfare of animals
in science and education
through the accreditation of
organizations meeting high
standards of humane and
responsible animal care.**

Laboratory Animal Medicine

- Concerned with the diagnosis, treatment, and prevention of diseases in animals used as subjects in biomedical activities.
- Also encompasses the methods of minimizing and preventing pain or distress in research animals and complicating factors in animal research.
- *Comparative Medicine* – The study of the nature, cause and cure of abnormal structure and function in people, animals, and plants for the eventual application to and benefit of all living things.
- *Laboratory Animal Science* – The body of scientific and technical knowledge and skills that bears on both lab animal care and lab animal medicine.

Laboratory Animal Medicine Certifications



International Association of Colleges of Laboratory Animal Medicine (IACLAM)



Promoting the role of laboratory animal
medicine veterinary specialists world-wide



ACLAM



More than 1100 active members (Diplomates)

The American College of Laboratory Animal Medicine advances the humane care and responsible use of laboratory animals through certification of veterinary specialists, professional development, education and research.

Specialty organization of the American Veterinary Medical Association (AVMA) since 1957

ACLAM Certification Requirements

- 1) Graduate of a college or school of veterinary medicine accredited by the AVMA
- 2) Veterinarian who possesses an [Educational Commission for Foreign Veterinary Graduate \(ECFVG\) certificate](#) or by the [Program for the Assessment of Veterinary Education Equivalence \(PAVE\)](#)

Training Program Option

- meet the ACLAM Standards,
- at least **two years**
- be recognized by ACLAM

Experience Option

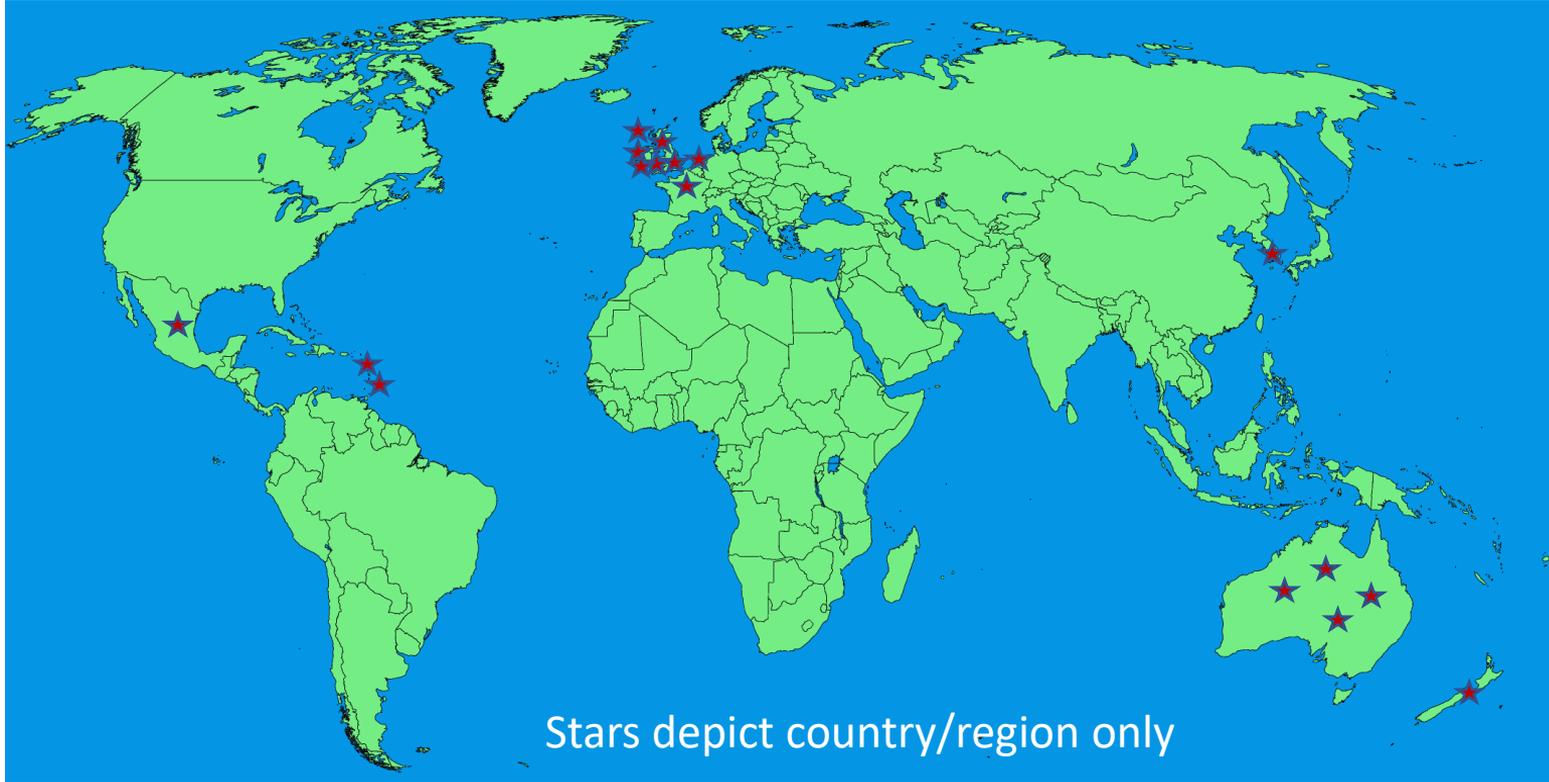
After **six years** of relevant, full-time experience in laboratory animal medicine...

Publication as first author of an original research article...
This article must be published in a peer-reviewed journal...

Certifying Examination

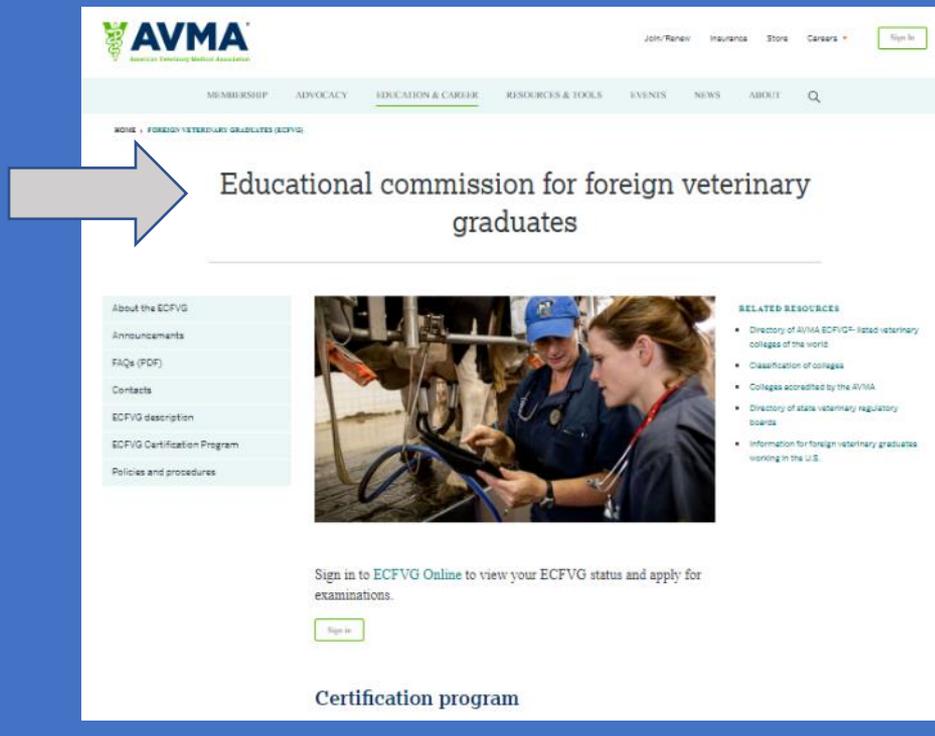
DACLAM

AVMA Accredited Veterinary Schools Outside USA/Canada



Stars depict country/region only

ECFVG Certificates



The screenshot shows the AVMA website's page for the Educational Commission for Foreign Veterinary Graduates (ECFVG). A grey arrow points to the main heading. The page includes a navigation menu, a sidebar with links to 'About the ECFVG', 'Announcements', 'FAQs (PDF)', 'Contacts', 'ECFVG description', 'ECFVG Certification Program', and 'Policies and procedures'. A central image shows two veterinarians in a clinical setting. To the right, a 'RELATED RESOURCES' section lists links to a directory of AVMA ECFVG-listed veterinary colleges, classification of colleges, accredited colleges, a directory of state veterinary regulatory boards, and information for foreign graduates working in the U.S. At the bottom, there is a 'Sign in to ECFVG Online' button and a 'Certification program' heading.

AVMA
American Veterinary Medical Association

Join/Renew Insurance Store Careers Sign In

MEMBERSHIP ADVOCACY EDUCATION & CAREER RESOURCES & TOOLS EVENTS NEWS ABOUT

HOME > FOREIGN VETERINARY GRADUATES (ECFVG)

Educational commission for foreign veterinary graduates

About the ECFVG
Announcements
FAQs (PDF)
Contacts
ECFVG description
ECFVG Certification Program
Policies and procedures



RELATED RESOURCES

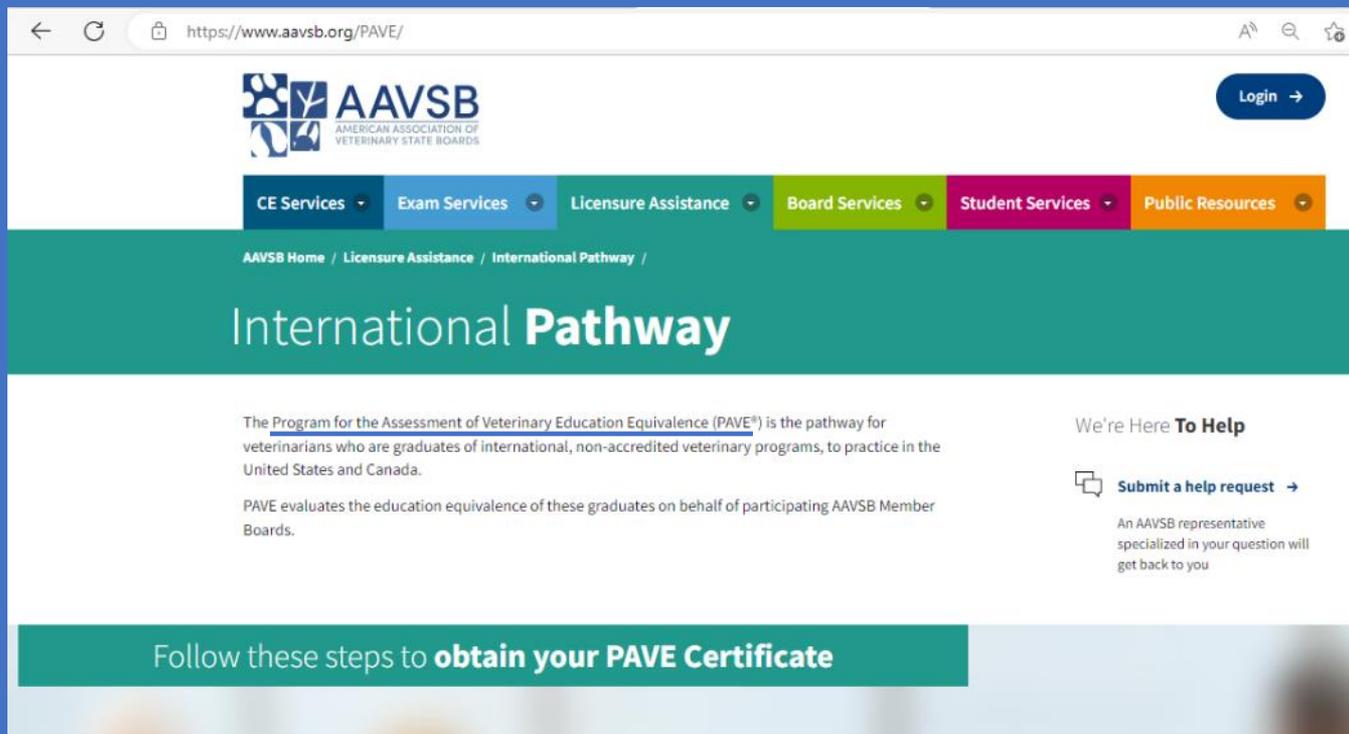
- Directory of AVMA ECFVG-listed veterinary colleges of the world
- Classification of colleges
- Colleges accredited by the AVMA
- Directory of state veterinary regulatory boards
- Information for foreign veterinary graduates working in the U.S.

Sign in to ECFVG Online to view your ECFVG status and apply for examinations.

Sign in

Certification program

Program for the Assessment of Veterinary Education Equivalence (PAVE)



← ↻ 🔒 <https://www.aavsb.org/PAVE/> 🔍 🌟

 **AAVSB**
AMERICAN ASSOCIATION OF
VETERINARY STATE BOARDS

Login →

CE Services ▾ Exam Services ▾ Licensure Assistance ▾ Board Services ▾ Student Services ▾ Public Resources ▾

[AAVSB Home](#) / [Licensure Assistance](#) / [International Pathway](#) /

International Pathway

The [Program for the Assessment of Veterinary Education Equivalence \(PAVE®\)](#) is the pathway for veterinarians who are graduates of international, non-accredited veterinary programs, to practice in the United States and Canada.

PAVE evaluates the education equivalence of these graduates on behalf of participating AAVSB Member Boards.

We're Here **To Help**

 [Submit a help request](#) →

An AAVSB representative specialized in your question will get back to you

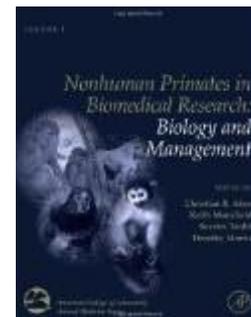
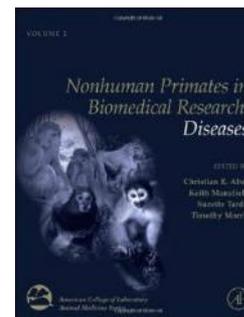
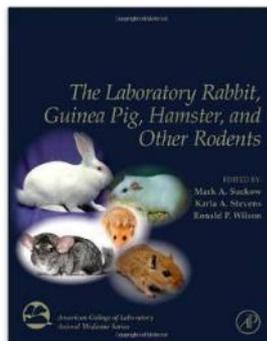
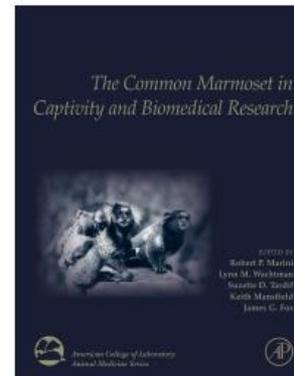
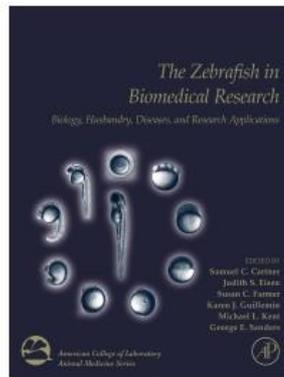
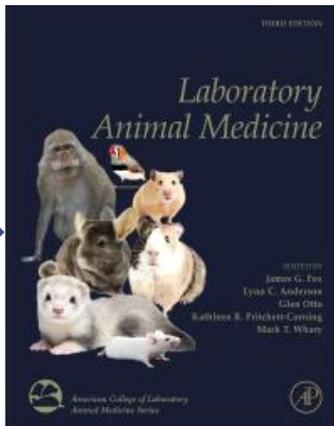
Follow these steps to **obtain your PAVE Certificate**

<http://www.aavsb.org/PAVE/>

ACLAM – Test Template Domains

- 1. Management of Spontaneous and Experimentally Induced Diseases and Conditions (25%)**
- 2. Management of Pain and Distress (10%)**
- 3. Research (20%)**
- 4. Animal Care (24%)**
- 5. Regulatory Responsibilities (19%)**
- 6. Education (2%)**

ACLAM Sponsored Textbooks (Blue Books)



Species Classification



ACLAM Test Template	
Species	
<p>For purposes of the test, an item that requires knowledge of the specific species to answer it correctly will be classified as a species item. The species may be identified by its common name or its binomial name.</p>	
	Percentage Range
Primary Species	60 - 70 %
Mouse (<i>Mus musculus</i>)	
Rat (<i>Rattus norvegicus</i>)	
Rabbit (<i>Oryctolagus cuniculus</i>)	
Macaques (<i>Macaca</i> spp.)	
Dog (<i>Canis familiaris</i>)	
Pig (<i>Sus scrofa</i>)	
Zebrafish (<i>Danio rerio</i>)	
Secondary Species	18 - 28 %
African clawed frog (<i>Xenopus</i> spp.)	
Baboon (<i>Papio</i> spp.)	
Cat (<i>Felis domestica</i>)	
Ferret (<i>Mustela putorius furo</i>)	
Gerbil (<i>Meriones</i> spp.)	
Goat (<i>Capra hircus</i>)	
Guinea pig (<i>Cavia porcellus</i>)	
Marmoset/tamarins (<i>Callitrichidae</i>)	
Sheep (<i>Ovis aries</i>)	
Squirrel monkey (<i>Saimiri sciureus</i>)	
Syrian hamster (<i>Mesocricetus auratus</i>)	
Tertiary Species	7 - 17%
Birds	
Invertebrates	
Reptiles	
Other amphibians	
Other fish	
Other livestock species	
Other mammals	
Other nonhuman primates	
Other rodents	

<https://virmp.org/>



Veterinary Internship & Residency Matching Program
American Association of Veterinary Clinicians

HOME
VIRMP INFO
PROGRAM SEARCH
CREATE AN ACCOUNT
MATCH DATA
INTERN SURVEY RESULTS
ABOUT THE AAFC
CONTACT Us

PROGRAM SEARCH

Choose One or More Categories:

- Residency - Genetics & Pediatrics - Small Animal
- Residency - Herd Medicine/Agricultural Practices/Herd Production
- Residency - Laboratory Animal/Comparative Medicine
- Residency - Medicine - Large Animal
- Residency - Medicine - Small Animal
- Residency - Neurology/Neurosurgery
- Residency - Oncology
- Residency - Ophthalmology
- Residency - Other
- Residency - Pathology/Clinical Pathology

To choose multiple categories, hold down the CTRL key and click on your selections.

Email Address [] Password [] SIGN IN
Forgot Password?



Becoming a Diplomate

Becoming a Diplomate



There is no fee to become a resident of ECLAM; however once you are approved an annual administrative fee will be assessed.

Prospective Residents

Residents are the future of ECLAM. It's a long and difficult journey to the Diploma, but the future of the speciality depends on your continuing to work hard and achieve the highest qualification.

If you have a veterinary degree and one year of internship, you can apply to become a resident. The residency training period is 3 to 6 years, after which you can sit the examinations for your Diploma. Subsequently, you will re-certify every 5 years to remain an active member.



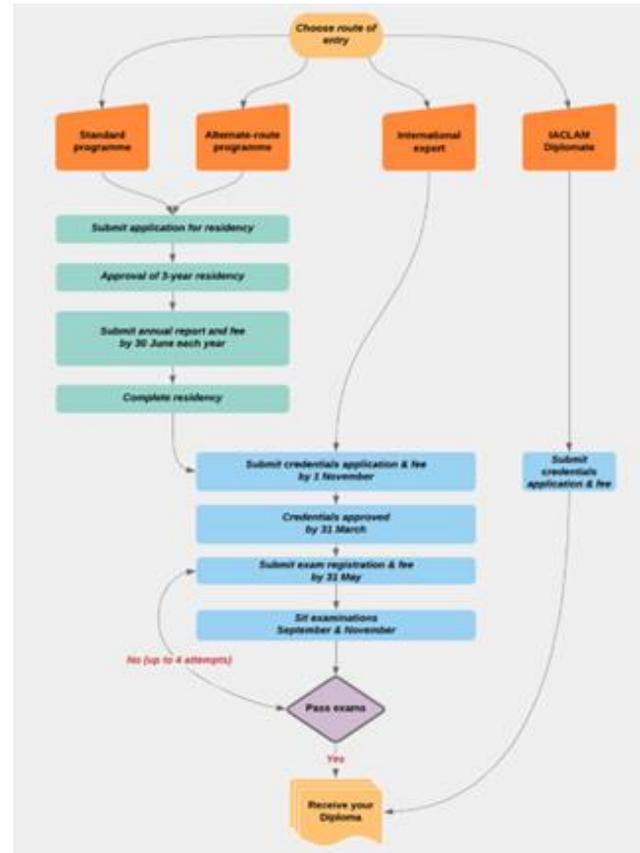
New graduates or
vet students



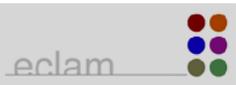
Prospective
residents

ECLAM Route of Entry

- Standard Programme
- Alternate-Route Programme
- International Expert
- IACLAM Diplomate



ECLAM Education Requirements



- Previous 1 year internship
- Standard residency and alternate route residency
- 3 years

Two Types of Residency: Choose Your Best Pathway

You can become either a standard resident or an alternate-route resident depending on your situation. Either way, your training programme must meet the requirements set out below.

Ready to complete the application form? [Head over to the Forms Page.](#)



STANDARD RESIDENCY

FORMAL PROGRAMMES IN EUROPE

Standard programmes offer a consistent training plan as part of a group of Diplomates and other residents. There are 4 approved standard programmes throughout Europe.



ALTERNATE ROUTE RESIDENCY

TAILOR YOUR TRAINING

You and your Director can tailor a training programme suited to your specific needs. The length of time and other requirements are identical to standard programmes.

Certification

(no examination)

- Senior position for over 10 years
- At least one publication in refereed journal as the first author
- Acquisition of credits to attend seminars

Regular Certification

- JALAM membership for > 3 years
- At least one publication in refereed journal as the first author
- Acquisition of credits to attend seminars
- **Attend hand-on training more than 2 times**
- **Examination pass score >70%**

* Information was contributed by Dr. Takashi Agui



Introduction

Introduction of KCLAM

President Letter

Organization

Introduction of KCLAM

[Location](#) > [Introduction](#) > [Introduction of KCLAM](#)

Korean College of Laboratory Animal Medicine (KCLAM) was established in 25th Oct 2006 for the purpose of 1) enhancement of humane technique of animal experiments, 2) development of the fields of disease of experimental animals, operation, anesthesia, pain relief, animal welfare and animal protection, 3) training for the development of Laboratory Animal Veterinarians, 4) and establishment technical standards. Prof. Jae-Hak Park, Seoul Nat'l Univ. was elected as the first president of KCLAM.

In 31st Oct 2006, KCLAM was joined with the International Association of Colleges of Laboratory Animal Medicine such as ACLAM, ECLAM and JCLAM. After the first training program for the development of Laboratory Animal Veterinarians, technical standards were established. Training programs were proceeded 4 times per year and the main textbook is "Laboratory Animal Medicine, 2nd ed." with other practical experiences from senior laboratory animal veterinarians.

The first KCLAM certificate examination was held in September, 2009. Eleven DKCLAMs were selected out of 40 candidates. Before the first certificate examination, 17 tentative DKCLAMs were selected in June 2007 and then 6 out of 17 tentative DKCLAMs were re-certificated through the first KCLAM certifying examination. Except for 6, 11 tentative DKCLAMs those who do not register their re-certificates have to pass the certification exam in two years. Now 28 DKCLAMs play a role as a DKCLAM (17 tentative DKCLAMs and 11 new DKCLAMs). Prof. Jin-Su Han was elected as

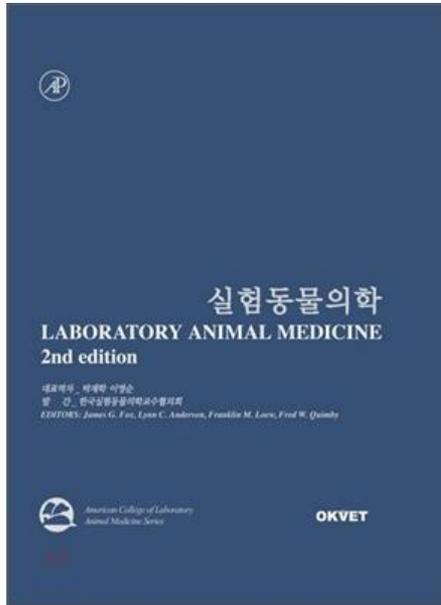
KCLAM - Qualification Criteria*

- Member of Korean Veterinary Medical Association among veterinarians authorized by the Veterinarian Law
- Registered member of KCLAM for two or more years at the time of application
- Primary author (or correspondent author) of one or more papers related to:
 - Laboratory animal or animal experiment
 - Published on SCI (including SCI-E) journals or journals registered with Korea Research Foundation (including candidate journals) at the time of application

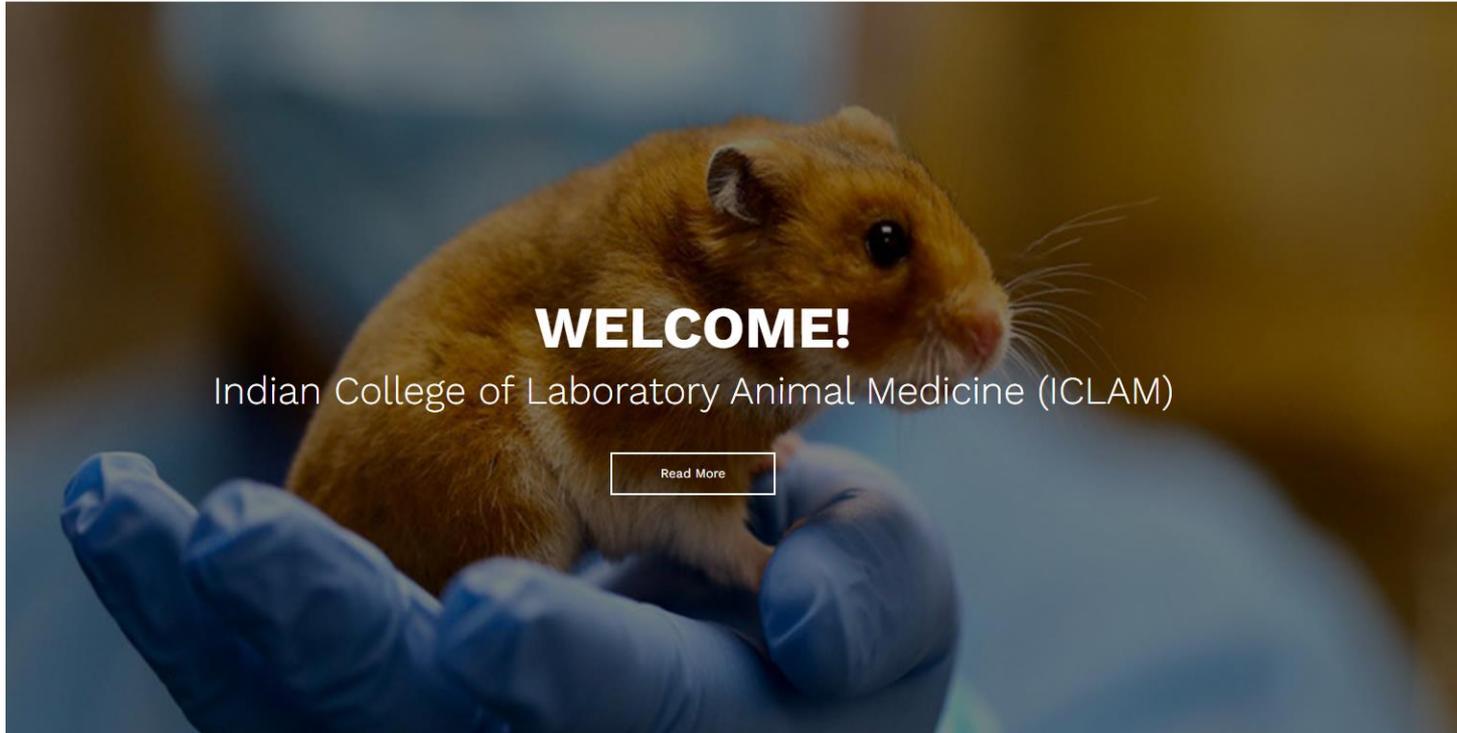
*Information contributed by Dr. Seung Hyeok Seok



- Candidate who completed a training and education program (2 years) recognized by KCLAM at the time of application
- Candidate who satisfies one or more of the following criteria at the time of application
 - **5 years** of experiences as an associate at a laboratory animal facility
 - 3 years of experience as an associate under tutelage of a Laboratory Animal Veterinarian
 - Master's degree holder in Laboratory Animal Medicine with 1 year of experience under tutelage of a Laboratory Animal Veterinarian
 - Doctorate degree holder in Laboratory Animal Medicine



*Information contributed by Dr. Seung Hyeok Seok



ICLAM Requirements

<https://www.iclam.org/certi-ter.php>



Graduate (B.V.Sc) of a College or School under Veterinary Council of India (VCI)

The candidate must be a member of Laboratory Animal Scientists Association (LASA, India) for at least one year prior to appearing for the examination.

Training Program (Optional)

- Complete the formal training program: FELASA "C"/ "D", NCLAS, Hyderabad; CFTRI, Mysore; CDRI, Lucknow etc.

Experience Route

- 1) SIX years of full time Experience in LAM after B.V.Sc or FOUR years of experience after M.V.Sc/Ph.D
- 2) Residency program – (under progress, one candidate has registered)

Candidate should meet the set criteria during the selection including experience, publication as first author in a peer reviewed journal and other requirements as per the ICLAM Bylaws.

Taking and has passed the Certifying Examination. The cut off marks minimum 60% in each module.

DICLAM

38th WORLD VETERINARY ASSOCIATION CONGRESS

Philippine College of Laboratory Animal Medicine (PCLAM)*

- A specialty college recognized by the **Philippine Veterinary Medical Association (PVMA)** and **Philippine Professional Regulation Commission (PRC)** that encourages education, training, and research in laboratory animal medicine and sets the standards of training and experience for qualification of veterinary specialist in this field.
- Established in 2014 and duly registered as a non-profit organization of veterinary specialists on June 10, 2015
- **PCLAM** is an Associate member of International Association of Colleges of Laboratory Animal Medicine (IACLAM)



*Information contributed by Dr. Mellissa Marie R. Rondina

PCLAM Membership Requirements

* Currently being revised to harmonize with membership requirements of other IACLAM members

- Must be a veterinarian with valid and current license to practice
- Be endorsed by at least two (2) members of PCLAM
- Be of good moral character and good ethical standing in the profession
- Original scientific article publication in a peer-reviewed journal from the applicant's research or clinical investigation in a reputable journal (web of science, scopus-indexed)
- Has satisfied either:
 - A PCLAM-recognized laboratory animal medicine training or residency program (Route 1)
 - Five (5) years of full-time or seven (7) years part-time experience in laboratory animal medicine (Route 2)
- Examination – taken after completion of 2-year residency training program or experience route

*Information contributed by Dr. Mellissa Marie R. Rondina

<http://iclas.org/committees/education-and-training-committee/iclas-scholarship-program-for-veterinarians-in-laboratory-animal-science-and-medicine>

- Program offered to veterinarians who live in areas without access to training and who lack the necessary funds to complete specified training programs
- Program format:
 - Online/modular education format and provide official certificates of training, or an academic degree, upon completion
 - The scholarship award is for 2/3 the total costs, up to maximum of €7,000. The student or his/her employer should fund the remaining 1/3 of the costs

Laboratory Animal Practitioners



Our mission is to advance laboratory animal medicine and welfare through member development and representation in the greater professional community. We achieve this through advocacy, education & collaboration.

laboratory animal practitioner

Newsletter of the American Society of Laboratory Animal Practitioners

Volume 56 No. 1 Spring 2023

[Mo Med](#), 2013 May-Jun; 110(3): 223–226.

PMCID: PMC6179843

PMID: [23829108](#)

The Laboratory Animal Veterinarian: More than just a Mouse Doctor

[Cynthia G. Alvarado](#), DVM

Cynthia G. Alvarado, DVM, is a resident in the Comparative Medicine Program, University of Missouri

[Lonny M. Dixon](#), DVM^{MS}

Lonny M. Dixon, DVM, MS, DACLAM, is Director at the Office of Animal Resources, University of Missouri

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Abstract

[Go to: ►](#)

Use of animals in research is strictly regulated by federal laws that define how the animals can be humanely housed, studied, and sold. Veterinary care for these animals is also required. Laboratory animal veterinarians serve as a unique bridge between the humane use of laboratory animals and the advancement of scientific and medical knowledge.

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Toward Global Harmonization of Training and Certification of Specialists in Laboratory Animal Veterinary Medicine

Patricia Hedenqvist,^{1,*} Vera Baumans,² Koji Hanai,³ Kazuo Yano,⁴ Su Cheong Yeom,⁵ Eun Ju Song,⁶ Shakthi RK Devan,⁷ Hilton J Klein,⁸ and Michele M Bailey⁹

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Vol 54, No 2
March 2015
Pages 174-180

Roles of the International Council for Laboratory Animal Science (ICLAS) and International Association of Colleges of Laboratory Animal Medicine (IACLAM) in the Global Organization and Support of 3Rs Advances in Laboratory Animal Science

Peer-reviewed literature....

Adequate Veterinary Care for Animals in Research:
A Comparison of Guidelines from Around the World

Joanne Zurlo, Kathryn Bayne, and Judy MacArthur Clark

Volume 50, Number 1 2009

ILAR Journal

AAALAC Reference Resources

- ➔ • [AAALAC International Position Statements](#)
 - [AAALAC International Frequently Asked Questions](#)
- ➔ • [ACLAM Position Statement on Adequate Veterinary Care](#)
 - [AVMA Guidelines for the Depopulation of Animals: 2019 Edition](#)
- ➔ • [OIE's Terrestrial Animal Health Code Chapter 7.8](#)
- ➔ • [CIOMS-ICLAS International Guiding Principles for Biomedical Research Involving Animals](#)

The Attending Veterinarian and Veterinary Care

The animal care and use program is the collaborative responsibility of the Institutional Official, the Attending Veterinarian, and the IACUC (or comparable oversight body). The Attending Veterinarian is responsible for the well-being and clinical care of animals used in research, testing, teaching, and production. This responsibility extends to monitoring and promoting animal well-being at all times during animal use, and during all phases of the animal's life. It is expected that the program of veterinary care will uphold the highest standards of care and ethics. Moreover, the veterinarian must have sufficient authority, as provided by the institution, to treat an animal and institute appropriate measures to relieve severe pain or distress, including euthanasia. In fulfilling these duties in a research environment, the Attending Veterinarian should interact collaboratively with the research team (e.g., the Principal Investigator or Study Director) when making critical decisions regarding animal health and welfare.

Acknowledgements

- Montip Gettayacamin
- WVAC
- April Chang
- Michelle Bailey

Thank you!