

CMAR CERTIFICATION HANDBOOK (REVISED OCTOBER 2009)

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Introduction

Why Become Certified? Certification provides an unbiased measurement of a person's ability to perform certain tasks and functions. Individuals who hold a professional certificate are a step ahead of their peers with tangible evidence of their ability to perform.

Laboratory animal resource managers face many challenges including an increasingly multicultural workforce, rapidly changing technology, and ever changing regulation and institutional policies. Managers who can consistently and effectively meet these challenges are in great demand. The Certified Manager of Animal Resources (CMAR) program is designed to raise competency and professionalism in the field of laboratory animal resources management.

Reasons Why You Should Become CMAR-Certified:

1. As a CMAR certificate holder, you will be recognized as an industry professional.
2. Employers often rely on certification credentials as a factor in promotions or hiring.
3. Certification helps managers evaluate strengths and weaknesses.
4. Employees engaged in certification typically have greater longevity in the profession.
5. Certification typically builds confidence and improves performance.

The CMAR Program

Program History. In 1999, the American Association for Laboratory Animal Science (AALAS) and the Laboratory Animal Management Association (LAMA) partnered with the Institute of Certified Professional Managers (ICPM) to establish a certification program designed specifically for the laboratory animal resources manager. The alliance combines AALAS' and LAMA's expertise in laboratory animal science with ICPM's expertise in management to form a joint certification program for laboratory animal managers. The first Animal Resources Exam was given at the AALAS National Meeting in Baltimore, MD, in October of 2001.

The CMAR Team. The CMAR team consists of a unique joining of resources between AALAS, LAMA, and ICPM for the development and administration of the CMAR program. A CMAR Committee, whose members are jointly appointed by AALAS and LAMA, has the responsibility for establishing program policies and procedures, developing examination questions, establishing eligibility requirements, and evaluating exam quality. This committee's responsibility in overseeing the CMAR Program is equivalent to that of the Certification and Registry Board (CRB) which oversees the Technician Certification Program.

Candidates who meet the CMAR eligibility requirements and pass the four exams are certified in the name of AALAS, LAMA, and ICPM. ICPM works with AALAS staff and the CMAR Committee to manage the Animal Resources Exam and to process the exam results.

CMAR Eligibility Requirements. The eligibility requirements to qualify for the CMAR program are as follows:

- Candidates with a bachelor's degree must have at least 5 years (9,750 hours) of work experience in the laboratory animal field. At least 3 years (5,850 hours) of that work experience must be in a managerial capacity.
- Candidates with an associate's degree must have at least 8 years (15,600 hours) of work experience in the laboratory animal field. At least 3 years (5,850 hours) of that work experience must be in a managerial capacity.
- Candidates with a high school or GED diploma must have at least 10 years (19,500 hours) of work experience in the laboratory animal field. At least 3 years (5,850 hours) of that work experience must be in a managerial capacity.

Requests for Exceptions and the Appeals Process. Requests for exceptions to any of the policies stated in the CMAR Handbook or any certification-related appeals should be made in writing and addressed to the co-chairs of the CMAR Committee c/o the AALAS national office.

- No one other than the candidate may make such requests.
- The CMAR committee will respond in writing within 60 days of the AALAS office receiving the appeal.

If not satisfied with the decision of the committee, the candidate may request further review by the AALAS President and Board of Trustees.

The CMAR Program Exams. The CMAR Program consists of four exams:

- The Animal Resources Exam that is administered by AALAS.
- Three Certified Manager exams that are administered by the Institute for Certified Professional Managers (ICPM).

The CMAR candidate must pass all four exams to earn the title of a Certified Manager of Animal Resources. The exams may be taken in any sequence. Please be advised that candidates have a time limit to complete these exams. For more information, please refer to each exam section in this handbook.

You will be certified for a period of two years from the date of your becoming CMAR certified; i.e., the date of your completion

GI Bill

Under the GI Bill, veterans are entitled to reimbursement for licensing and certification tests. AALAS' CMAR Program is approved by the Veteran's Administration. For more information, please contact your VA regional office or visit <http://www.gibill.va.gov/Education/LCweb.htm> and search on AALAS.

of all four exams with a passing score. To maintain your CMAR status, you must re-certify in the CMAR Program every two years upon your anniversary date. Re-certification shows your dedication to excellence in continuing your personal development. Please refer to the section on re-certification in this handbook.

The Certified Manager (CM) Exams

The CMAR program includes the three Certified Manager exams, which are administered by ICPM.

Institute of Certified Professional Managers (ICPM). In 2000, ICPM formed an alliance with AALAS and LAMA which created the CMAR program. The alliance combines ICPM's expertise in management with AALAS' and LAMA's expertise in animal laboratory science to form a unified certification program for animal lab managers. ICPM is a non-profit corporation whose mission is to increase the professionalism and competency of managers. Since 1974, ICPM has certified over 10,000 managers worldwide.

The CMAR program is comprised of three Certified Manager (CM) exams and one Animal Resource (AR) exam. The CM exams, exam standards, and requirements are developed and administered by ICPM. The AR exam, exam standards, and requirements are developed and administered by AALAS and LAMA. The exams may be taken in any order.

Application. Application to take the CM exams is made by completing the CM application form. Application forms can be completed online at www.icpm.biz or can be requested in paper or downloadable file formats by phone or email. ICPM also accepts the CMAR application as a substitute for the CM application. Completed applications (including payment) can be mailed, faxed, or sent electronically to ICPM using the contact information below.

Institute of Certified Professional Managers, James Madison University, MSC 5504, Harrisonburg, VA 22807

Phone: (800) 568-4120. Fax: (540) 801-8650. Email: icpmcm@jmu.edu. Web: www.icpm.biz.

Applicants have 15 months from the date of CM application approval to complete the CM exams. Applicants who do not complete the exams in the designated time frame will be charged a \$50 reinstatement fee by ICPM to continue with the exams for an additional 15-month period.

Study. ICPM provides three printed study manuals and an online learning center to facilitate preparation for the CM exams. The study manuals are titled as follows:

- Management Skills I: Foundations of Management
- Management Skills II: Planning and Organizing
- Management Skills III: Leading and Controlling

Content of the manuals integrates contemporary management theory with the more traditional management approach of planning, leading, organizing, and controlling. The content is supported by integrated case examples, application-based exercises, and review questions. The online learning center features practice exams, chapter reviews and summaries, PowerPoint slides, quizzes, and additional application exercises.

Exam Format. The 3 CM exams are aligned with content covered in the 3 study manuals. Each exam is a 2-hour, timed exam that consists of 120 multiple-choice questions that test knowledge, decision-making, and analytical skills. Exams can be taken on paper or online and are administered at the test taker's workplace by a proctor (usually a member of the human resources staff). Online exam instructions are emailed to test takers, and passwords are emailed to proctors. Test takers should contact ICPM 5 to 7 days before they are ready to test to make arrangements. It is recommended that the CM exams be taken one at a time after studying each manual.

Exam Results. Online exams provide immediate "pass" or "fail" results at the conclusion of each exam. Paper exams are graded on the 16th of each month or the next business day. Official results for both online and paper exams are reported by mail immediately thereafter.

Certification. Upon successful completion of the three CM and one AR exam, program participants are awarded the CMAR certificate.

Questions and Information. Questions can be addressed to ICPM by calling (800) 568-4120 or emailing ICPM at icpmcm@jmu.edu. Office hours for ICPM are Monday through Friday, 8 a.m.–5 p.m. EST.

The Animal Resources Exam

The CMAR Program is administered by AALAS.

Exam Policies. The CMAR candidate must pass all four exams to earn the title of a Certified Manager of Animal Resources.

The exams may be taken in any sequence.

Time Limit for Taking the Animal Resources Exam. Candidates applying have 15 months in which to take the Animal Resources Exam after their applications are approved. These candidates will be notified of their 15-month period in email confirming acceptance in the program. If a candidate does not take the Animal Resources Exam during his/her 15-month period, the candidate will forfeit the application and exam fees and will have to resubmit full payment to take the exam at a later date.

Exam Time Limit

An email of acceptance into the CMAR program will include the date for the time limit (15 months) by which the candidate must pass the Animal Resources Exam and apply to ICPM.

Any candidate who is unable to comply with the 15-month deadline can request an additional 15-month extension by submitting a Maintenance Form and a maintenance fee. This fee ensures that the candidate maintains eligibility status and grants him or her an additional 15-month period to pass the AR exam and apply to ICPM. Only one extension will be permitted; after that, the candidate will have to submit a new application and pay the exam fee again.

Administration of the Animal Resources Exam. The Animal Resources Exam is currently available only as a pencil-and-paper exam at certain scheduled venues; i.e., the AALAS National Meeting, the LAMA Annual Meeting, and certain AALAS district meetings. The CMAR committee is aware of the difficulties managers and administrators may have in arranging to attend meetings. *Therefore, upon request, AALAS can work with*

candidates to arrange paper-and-pencil exams to be proctored at the candidate's facility usually by the human resources department. Please contact the AALAS national office for more information.

To apply, qualified candidates must submit a CMAR application and fees to AALAS before the published deadline (usually three weeks prior to the Animal Resources Exam).

For information on preparing for the Animal Resources Exam, please refer to the two sections later in this handbook: *Animal Resources Exam Topics* and *CMAR References*.

Eligibility to Proctor. AALAS staff, CMAR-certified AALAS/LAMA members, or a member of a human resources department are eligible to proctor the Animal Resources Exam.

- Proctors must sign a confidentiality form from AALAS
- No proctor may be in the direct or indirect reporting structure of the exam candidate.
- Proctors must hold the title of manager or higher, or be a member of the human resources department.

Exam Authorization. Upon receipt of the completed application and fees, the AALAS office will review the information and then contact you regarding your candidate status in relation to the requirements of the program. If you have chosen a venue with established time and date, an authorization to test letter will be sent by mail and fax 7–10 days before the scheduled exam. If you are obtaining a proctor at your facility, an authorization to test will be sent after a proctor has been chosen and approved, and the candidate and proctor have agreed upon a date and time for the exam. Please allow 3 weeks for all arrangements to be accomplished when selecting a proctored exam.

Scheduling the Exam. Upon receipt of the acceptance email, the candidate can request to be scheduled for the Animal Resources Exam at an available venue. Upon receipt of the request, AALAS will respond by email and by letter with specific information and instructions for taking the exam.

Receiving Your Exam Results. After your exam has been graded, you will receive your exam results from AALAS by US mail within 2–4 weeks.

- If you passed the exam, you will receive a notification letter. You will receive an exam score or a break-down of your exam performance. When you have completed all four CMAR Program exams, you will receive a CMAR certificate.
- If you did not pass the exam, you will receive a letter notifying you of your score and a summary of performance (strengths and weaknesses) according to each exam topic area. Use this information to guide your studies in preparation for retaking the Animal Resources Exam.

Reapplying for the Animal Resources Exam. If you do not achieve a passing score on the Animal Resources Exam, you may reapply to take the exam again. To reapply for the Animal Resources Exam, the following will be required:

- A completed CMAR application form
 - If within a year of your last Animal Resources Exam, you may omit the Work Experience Verification.
 - If more than a year since your last Animal Resources Exam, you must include all necessary documentation including Work Experience Verification.
- Payment (charge card number or check) for application fee, exam fee, and the processing fee (for nonmembers).

Fee Policies/Refunds.

- A candidate may receive a refund of the exam fee if notification of cancellation is received at least one week before the exam date.

Fees

Application Fee... \$25²

Exam Fee.....\$85

Nonmember
processing fee ...\$75^{1,2}

¹waived for AALAS or LAMA
members

²non-refundable

- The application fee is not refundable.
- The nonmember processing fee is not refundable.

Fee Forfeiture. The candidate will be designated as a “No-Show” at an exam if the candidate:

- Cancels the exam too late (less than one week before the exam date).
- Does not appear for the exam.
- Arrives late at the exam (30 minutes or more past the scheduled start time).

No-show candidates will forfeit all fees from the missed exam. To take the Animal Resources Exam at a later date, an application form and all related fees must be resubmitted.

New 2009 Animal Resources Exam Content Outline

Effective November 2009

I. Domain 1. Animal Husbandry, Health and Welfare (15%)

A. Animal Identification

1. species recognition
2. strain identification
3. sex differentiation
4. identification techniques (for example, ear-notching; ear-punching; tattooing; microchip implantation)
5. identification systems (for example, read and interpret identification markings)

B. Nutrition

1. food characteristics (for example, form; textures; quality)
2. handling of food and water (for example, dispensing; decontamination; irradiation)
3. animal feeding behaviors and requirements (for example, ground feeders; upright feeders; ad lib versus rationed feeding)
4. food supplements (for example, vitamins; minerals)
5. species-specific nutritional requirements

C. Husbandry Practices

1. Transport of animals:
 - a. physical (carrying),
 - b. mechanical (for example, transfer box/cage; leashes)
2. containment and barrier techniques and facilities
3. protective equipment and clothing
4. animal health considerations (for example, signs of stress; disease and death; confirmation of death)
5. species-specific zoonotic risks and diseases

II. Domain 2. Facility Administration and Management (30%)

A. Facility Operations and Management

1. quality control of food and water (for example, storage; analysis; contamination; milling date)

2. water quality and delivery systems [for example, potable water; reverse osmosis (RO); acidification; equipment maintenance]
3. pest/vermin control
4. financial management and planning (for example, accounting; budgeting; cost analysis; cost containment)
5. cost recovery (for example, billing; per diems)
6. Purchasing:
 - a. supplies (for example, food; bedding)
 - b. animals
 - c. equipment including preventative maintenance contracts
 - d. vendor selection/contracting including, obtaining bids
7. equipment identification
8. equipment maintenance
9. traffic patterns (for example, clean and dirty corridors; room care sequence)
10. procedures for reporting abnormal environmental parameters within a facility including recognizing an unsafe environment
11. inventory systems (for example, feed; bedding; equipment)
12. inventory procedures
13. rotation policies (for example, supplies)
14. controlled substances handling and storage procedures
15. facility construction and design
16. Waste disposal:
 - a. procedures (when, where, how)
 - b. regulations, including documentation
17. Security:
 - a. strategies to prevent security breaches
 - b. procedures for reporting security threats/breaches
 - c. procedures for responding to security threats/breaches (for example, lockdown and secure area; evacuation)
 - d. security systems (for example, card reader; lock and key; video surveillance)

B. Occupational Health & Safety

1. personal protective equipment and procedures for operation (for example, respirators; gloves; safety glasses)
2. safety equipment and procedures for operation (for example, fire extinguishers; alarms; bite and scratch kits; first aid)
3. personnel health surveillance/maintenance (for example, serology banking; vaccinations; TB testing)
4. handling, storage and disposal of hazardous waste (for example, biohazards; chemical and radiation)
5. environmental hazards, including hazard warning signs
6. emergency procedures (for example, evacuation plans; unexpected hazards; emergency contacts)

III. Domain 3. Human Resource Management (10%)

- A. Management Principles and Techniques** (for example, job descriptions; performance appraisals; interviewing/selection; employee supervision; career development)
- B. Organizational Structure** (for example, chain of command; communication)
- C. Employee training:**
 1. development of training programs
 2. implementation of training programs
 3. evaluation of training programs
- D. Communications** (verbal, written)
- E. Negotiations** (for example, work schedules; salary)
- F. Conflict Resolution**

IV. Domain 4. Research and Compliance (45%)

- A. Breeding**
 1. housing and environmental requirements during breeding (for example, light cycles; noise control; nesting material; nesting boxes)
 2. breeding behavior specifics (for example, estrus cycle courting rituals; displays; aggression)
 3. basic breeding techniques (for example, monogamous; harem; scheduled; cross-fostering)
 4. advanced breeding techniques (for example, in vitro fertilization; artificial insemination)
 5. control of pathological organisms and harmful substances
 6. pregnancy recognition, including palpation, diagnostic tests and visual signs
 7. gestational, parturition, post-parturition and neonatal care
 8. Genetics:
 - a. terminology and nomenclature

B. Husbandry Practices

1. Environmental monitoring and control (for example, temperature; humidity; ammonia; lighting)
 - a. macroenvironment (room level)
 - b. microenvironment (cage level)
2. caging types (for example, squeeze; transport; metabolic)
3. caging/housing materials (for example, polycarbonate; stainless steel)
4. species-specific housing requirements (for example, resting boards; monkey perches)
5. minimum space requirements (for example, cages; stalls; runs)
6. bedding (for example, types; amount; quality; handling; storage)
7. special housing areas (for example, quarantine; isolation; barrier; containment)
8. Restraint handling & techniques:
9. physical (for example, hand-held restraints)
10. mechanical (for example, primate chairs; leashes; restrainers)
11. chemical (for example, sedation; anesthesia)

C. Clinical, Health, and Research Techniques

1. medical/veterinary/scientific technology
2. Methods/routes of administration for:
 - a. medications and experimental treatments
 - b. euthanizing agents
3. pharmacology (types of drugs and dosages)
4. Anesthesia and analgesia:
 - a. induction and maintenance
 - b. monitoring requirements
 - c. monitoring equipment
5. diagnostic procedures (for example, serology; hematology; microbiology; parasitology; pathology; imaging)
6. aseptic technique

D. Regulatory Compliance

1. animal health monitoring
2. ethical treatment of animals
3. federal, state and local regulations
4. institutional policies (for example, SOPs; guidelines)
5. environmental enrichment needs
6. public awareness (for example, media portrayal and public perception)
7. Good Laboratory Practices (GLP) regulations
8. Standard Operating Procedures (including “for what”, “where”)
9. emergency contact list

E. Documentation and Record Maintenance

1. safety records
2. Institutional Animal Care and Use Committee (IACUC) records
3. animal health records
4. regulatory records (for example, USDA; PHS; FDA; GLP)

5. monitoring logs (for example, temperature; humidity; cage wash; sanitization; sterilization; microbiological monitoring records)
 6. animal census maintenance
- F. Data, Formulas and Calculations**
1. data entry procedures
 2. record keeping requirements
 3. data collection techniques
 4. data analysis techniques
 5. Data calculations:
 - a. weights and measures (for example, pounds; ounces; milliliters; cubic centimeters)
 - b. dosages
 - c. dilutions
 6. Data interpretation of animal health data
- G. Species Specifics**
1. anatomy and physiology
 2. natural habitats/environment
 3. taxonomy (for example, common names; scientific names)
 4. behavior (for example, barbering; incompatibility)
 5. Euthanasia techniques:
 - a. common lab animals including mice, rats, hamsters, gerbils, rabbits and guinea pigs
 - b. dogs, cats, and non-human primates
 - c. other laboratory animal species (e.g., pigs; sheep; goats; aquatics)

Additional Readings List

The CMAR Committee and the Certification and Registry Board collaborate on maintaining an Additional Readings List that provides in-depth coverage of many topics in the laboratory animal field. These readings may also assist you in preparing for the Animal Resources Exam. The list is available from AALAS and can be downloaded from the AALAS web site.

CMAR References

The CMAR Committee maintains a list of recommended study materials for candidates to use in preparing for the Animal Resources Exam. These items are also available from AALAS as a CMAR Resource Kit and can be purchased through the AALAS bookstore.

1. **American Veterinary Medical Association.** 2007. AVMA guidelines on euthanasia, 2007 update. Available at <http://www.avma.org>.
2. **Animal Welfare Act Regulations and Standards.** 1998. 9 CFR, Subchapter A, Parts 1-3. Available at http://www.aphis.usda.gov/animal_welfare/awr.shtml.
3. **ARENA/OLAW.** 2002. Institutional animal care and use committee guidebook, 2nd ed. Bethesda (MD): National Institutes of Health.
4. **Institute of Laboratory Animal Research.** 1996. Guide for the care and use of laboratory animals. Washington (DC): National Academies Press.
5. **National Research Council.** 1997. Occupational health and safety in the care and use of research animals. National Academies Press. Also available at <http://www.nap.edu/books/0309052998/html/index.html>.
6. **Public Health Service.** 2002. Public Health Service policy on humane care and use of laboratory animals. Public law 99-158, Health Research Extension Act of 1985. Washington (DC): US Department of Health and Human Services. Also available at <http://grants.nih.gov/grants/olaw/references/phspol.htm>.
7. **Silverman J.** 2008. Managing the laboratory animal facility, 2nd ed. Boca Raton (FL): CRC Press.
8. **Suckow MA, Douglas FE, Weichbrod RH, editors.** 2001. Management of laboratory animal care and use programs. Boca Raton (FL): CRC Press.

Format of the CMAR Program Exams

The Certified Manager exam consists of 120 multiple-choice questions with one correct answer among five choices. The Animal Resources Exam is a three-hour exam consisting of 150 questions that tests a combination of knowledge and judgment based on experience obtained as a manager in the laboratory animal field. The Animal Resources Exam is modeled after the Certified Manager exams developed by ICPM. In tests of management skills, the candidate must demonstrate an ability to function in situations that require sound decision-making abilities in addition to having knowledge relevant to the field. To be successful in the Certified Manager exams and the Animal Resources Exam, you must demonstrate real-world analysis and decision-making skills that are often learned from practical experience outside of a classroom. Therefore, these exams consist of questions that reflect knowledge obtained from both reading and experience in real-world settings.

The following are examples of the types of questions on these exams: knowledge-based questions, analytical questions, and decision-making questions. A brief description and an example of each are presented (bold indicates correct answer). Visit www.aalaslearninglibrary.org for additional practice questions. They can be found in the free CMAR course.

Knowledge-Based Questions. Knowledge-based questions tap into facts and concepts that the manager learned either in day-to-day business activities or through reference books.

What is OSHA?

- A. **Occupational Safety and Health Administration**
- B. Occupational Standards in Hiring Administration
- C. Oversight Standards in Health Agency
- D. Overseers and Supervisors Hiring Act
- E. Overtime Standards in Hiring Act

A manager's responsibilities typically include all of the following except:

- A. Planning
- B. **Payroll**
- C. Supervision
- D. Coordination
- E. Control

Analytical Questions. Analytical items go beyond basic knowledge to test if the manager understands causes and relationships, and can translate information from one mode (e.g., graph) to another (e.g., statement of economic prediction). Analytical skill is important in the performance of management duties.

Which of the following summarizes the importance of history for the manager?

- A. Yesterday's problems can provide insight into today's situations.
- B. Past experiences may serve as precedents to be considered in formulating new solutions.
- C. A manager should have the widest possible knowledge in many areas.
- D. **A and B**
- E. A, B, and C

Which of the following describes a cause of increased productivity due to specialized effort?

- A. The job skills of individual employees tend to increase.
- B. Time is used more efficiently.
- C. More specialized and efficient machinery is encouraged.
- D. **All of the above**
- E. None of the above

Decision-making Questions. Decision-making questions take the examinee into the "real world" to see if solutions to hypothetical situations can be concluded, if mathematical situations can be deduced, or if mathematical data can be extrapolated or solved. Decision-making usually requires both knowledge and analytical skill to determine the best solution.

An employee has made an honest mistake that results in a good deal of embarrassment for you as his/her superior. As the supervisor, you should:

- A. **Accept the consequences of the mistake yourself, but try to make your employee aware of the problems that his/her actions have caused you.**
- B. Send the employee to your own superior to explain the situation.
- C. Advise the front office that the employee was careless and should have known better.
- D. Convince the employee and his/her coworkers that he/she has let the department and the company down.
- E. Discipline the employee immediately as a lesson to everyone in the department.

Don't Forget to Re-certify

Please note that it is possible to lose your CMAR status. After four months without recertification, the CMAR status becomes inactive; after two years, status is rescinded and the exam must be taken again at full cost.

Requirements for Recertification

To maintain your status as a Certified Manager of Animal Resources, you must submit to AALAS a recertification fee and 24 CEUs (continuing education units) obtained over the two-year period prior to your certification anniversary date.

CMAR Re-certification

Requirements for Re-certification. To maintain your status as a Certified Manager of Animal Resources, you must submit to AALAS 24 CEUs (continuing education units) obtained over the 2-year period prior to your certification anniversary date, along with a recertification fee (\$40 AALAS members/\$75 nonmembers). ICPM recognizes that CMAR recertification fulfills all CM requirements. CM re-certification is not required. Your CMAR status will be on record with both AALAS and ICPM.

Re-certification Procedures:

- Obtain a CMAR CEU Submission Form and a List of CMAR CEU Activities (included in this handbook and available on the AALAS web site). CMAR materials can be downloaded from the AALAS web site (<http://www.aalas.org>) under Certification. Or, contact the AALAS office for a copy of documents.
- When you are due to re-certify your CMAR status, submit to AALAS your completed CMAR CEU Submission Form, all CEUs for the 2-year period, and the re-certification fees at one time.
- Your CMAR re-certification fee covers your next 2 years of CMAR status.
- You do not need to be a current AALAS national member to re-certify your status as a CMAR. Membership in national AALAS or LAMA provides a discount on the re-certification fee.
- Keep records of your CEU documentation. CMAR Committee conducts audits annually. Individuals who are randomly selected for audit will be requested to send their CEU documentation to AALAS.

Policies on Late Re-certification. Re-certifications submitted over 4 months past the due date are subject to an additional late-payment fee. For AALAS members, the late fee is \$40. For nonmembers, the fee is \$75. Please submit both re-certification and late fees. After 4 months without re-certification, the CMAR status becomes inactive. A new month for recertification will be issued to coincide with the month that the recertification and late fees were paid. This change of date will indicate a late recertification.

After 2 years without re-certification, the CMAR status is rescinded. To regain the CMAR status, the Animal Resources Exam must be taken and passed again at full cost.

Don't forget—a late payment applies if you fail to re-certify on time.

CMAR RE-CERTIFICATION LIST OF EXAMPLE CE ACTIVITIES

<u>Activity</u>	<u>CEU Value</u>
Formal Educational/Personal Development Courses	
Course or educational program	1 per classroom/lecture hr.
Institute for Laboratory Animal Management (ILAM)	32 CEUs per level
SUNY Delhi Technologist Review Class	60 CEUs
Scientific/professional meeting or conference	1 per classroom/lecture hr.
In-House Training Courses	1 per classroom/lecture
Veterinary Technician Review Articles and Tests	0.5 CEU per issue
JAALAS continuing education modules	2 CEUs per issue
College courses	9/semest. hr or 6/qtr. hr.
Short courses, seminars, audio/visuals, or auto-tutorial programs at a lab animal science meeting....	1 per classroom/lecture hr.
Active participation in a workshop at a lab animal science meeting	1 per classroom/lecture hr.
Wetlabs and workshops (hands-on learning)	1 per classroom/lecture hr.
<i>Correspondence course CEU values will be evaluated on a case-by-case basis by the CMAR Committee.</i>	

Publications, Reports, Presentations

First author of an article, book chapter, poster, etc., in a refereed publication (e.g., <i>CT/JAALAS or Comparative Medicine</i>)	8 per publication
Any other author in a refereed publication, presentation, poster, etc.	5 per publication
Referee or review of national journal article or program	2 per item
Technical or management article published	4 per article
Paper, lecture, or poster presentation OR workshop leader at a(n):	
AALAS National Meeting or AALAS District/regional meeting	3 per paper/program
AALAS Branch meeting	2 per paper/program
LAMA Annual Meeting	5 per paper/program
Other national conference of a national lab animal organization	5 per paper/program
In-house presentation	1 per paper/program
International lab animal science meeting	5 per paper/program
ABR local chapter, school presentation, etc.	2 per paper/program
AALAS Certification Preparatory Course Instruction	2 per classroom/lecture hr.
<i>A maximum of 6 CEUs can be claimed for the same topic presentation over a two-year period.</i>	

Professional Society Participation

National AALAS officer, trustee, or committee member	6 per year/position
Officer/committee member of an AALAS branch or affiliated organization	3 per year/position

Online Learning Courses

AALAS Learning Library	CEUs as stated per course
<i>Other online course CEU values will be evaluated on a case-by-case basis by the CMAR Committee.</i>	

CMAR APPLICATION FORM

Instructions

Your aim to become a CMAR demonstrates your commitment to high standards and professional growth in the laboratory animal management field. Before applying, verify with AALAS that you have the current application.

Step 1: Complete the work experience portion of this form. You must meet one of the following criteria:

- Candidates with a bachelor's degree must have at least 5 years (9,750 hours) of work experience in the laboratory animal field. At least 3 years of that work experience must be in a managerial capacity.
- Candidates with an associate's degree must have at least 8 years (15,600 hours) of work experience in the laboratory animal field. At least 3 years of that work experience must be in a managerial capacity.
- Candidates with a high school diploma or GED must have at least 10 years (19,500 hours) of work experience in the laboratory animal field. At least 3 years of that work experience must be in a managerial capacity.

Step 2: Complete the educational background portion of this form and include a copy of diplomas and/or transcripts.

Step 3: Have your current and previous employers complete a Work Experience Verification Form for you. Completed forms must be submitted with your CMAR application.

Step 4: Complete the Assurances section. Read each statement, then sign and date the line below.

Step 5: Attach payment by check or fill in all charge card information.

Step 6: Register and take the Animal Resources Exam within the next 15 months.

AALAS Membership number _____

LAMA Membership status _____

(If you are a LAMA member but not an AALAS member, please provide documentation of your current membership to receive the processing fee waiver.)

Name _____
(First) (Middle) (Last)

Exact name as you wish it to appear on certificate *(please print)*

Home address _____

_____ (City) (State) (Zip)

Country _____

Home phone _____

Email _____

Employer _____

Business address _____

_____ (City) (State) (Zip)

Business phone _____

Business fax _____

Business email _____

Preferred Mailing Address: Home Work

Request Notification Letter

AALAS would like to extend you an invitation to share the news of your accomplishment with others at your workplace. If there is a colleague who you would like AALAS to notify, please list that individual below. If you prefer that no one be notified, just leave the section blank.

Dr. Mr. Mrs. Ms. Name: _____ Title: _____

Notify by E-mail E-mail address: _____

Letter Street: _____ City: _____

State: _____ Zip Code: _____

Education

Include copies of degrees, transcripts, and/or diplomas to verify eligibility. Foreign documentation must be translated into English. Provide information on your diploma or highest degree.

Are you applying under the::

- Bachelor's degree eligibility
- Associate's degree eligibility
- High school diploma eligibility

Institution Name _____

Location _____

Degree _____ Date _____

Certified Manager Exams

The CMAR Program consists of four exams: the Animal Resources Exam, which is administered by AALAS, and three Certified Manager (CM) exams, which are administered by the Institute for Certified Professional Managers (ICPM).

Have you applied to ICPM to take the CM exams? Yes No

Have you completed all the CM exams? Yes No

Request for Animal Resource Exam Venue

Please indicate the venue of your choice for taking the Animal Resource Exam. Exam date must be within the next 15 months. For venue information, refer to www.aalas.org; click on Certification, then Management Certification. Eligibility for the Animal Resource Exam is based upon your work experience and your educational background.

Conference/Meeting title _____

Date _____

Laboratory Animal Experience

Complete a Work Experience Verification Form for each employment you list in this section. Attach additional sheets as needed to list additional institutions. 1,950 hours of experience (average of 37.5 hours a week) equates to one year of work experience.

= Total Years

Laboratory Animal Resources Experience

■ Institution name _____ *Start date mo/yr* *End date mo/yr*
 Address _____
 City _____ State _____ Zip _____
 Position/job duties (be specific) _____

■ Institution name _____ *Start date mo/yr* *End date mo/yr*
 Address _____
 City _____ State _____ Zip _____
 Position/job duties (be specific) _____

Managerial Experience

The definition of a managerial experience, with regards to the CMAR program, is experience that relates to planning, organizing, leading and controlling human or organizational resources to achieve organizational goals.

= Total

■ Institution name _____ *Start date mo/yr* *End date mo/yr*
 Address _____
 City _____ State _____ Zip _____
 Position/job duties (be specific) _____

■ Institution name _____ *Start date mo/yr* *End date mo/yr*
 Address _____
 City _____ State _____ Zip _____
 Position/job duties (be specific) _____

Work Experience Verification

The Work Experience Verification Form is used to document your experience reflected on the CMAR Application Form. Send a copy of this page to each person who will verify your work experience. Submit completed Work Experience Verification form(s) with your CMAR application.

Individual verifying work experience

Name _____ Position _____
 Institution _____
 Phone _____ E-mail _____

Applicant

Name _____ Position _____
 Institution _____
 Phone _____ E-mail _____

Request for Work Experience Verification

I am submitting an application for management certification with the American Association for Laboratory Animal Science (AALAS), and I must document eligibility requirements related to my work experience in the laboratory animal field.

I am asking you to verify my work experience by providing the information requested below. This is a very important part of the application process, and my application cannot be processed without this information. Thank you for your help.

- 1) The applicant is/was employed at _____ for _____ years from _____ to _____.
(company/organization) (mo/yr) (mo/yr)
- 2) Position _____
- 3 Location (site) _____
- 4) Number of hours per week _____
- 5) Job Function; Duties; Responsibilities (be specific) _____

- 6) Please estimate percentage of time spent on managerial duties. (The definition of a managerial experience, with regards to the CMAR program, is experience that relates to planning, organizing, leading and controlling human or organizational resources to achieve organizational goals.)

- 7) Additional Comments _____

- 8) Signature of individual verifying work experience _____
- 9) Date _____

Please return this form by fax or mail to the candidate. (Candidate: Please fill in your return address below)

Name _____
 Address _____
 City _____ State _____ Zip _____
 Fax: _____

Assurances

- I understand that AALAS, ICPM, and LAMA do not discriminate among applicants as to age, gender, race, religion, national origin, disability, or marital status.
- I subscribe to the AALAS Code of Ethics and the ICPM Code of Ethics.
- I agree to maintain my certification through continuing education and the payment of re-certification fees to AALAS.
- By signing this statement, I declare that the foregoing statements and those in any required accompanying documentation are true. I understand that false information may be cause for disciplinary action, including denial or loss of my certification credential. I authorize AALAS to contact my educational institutions and current and former employers to verify the information on this and accompanying forms.

Signature _____ Date _____

AALAS member number _____

Application and Exam Fees

Application Fee\$25 (non-refundable)
 Processing Fee (waived for National AALAS and LAMA members).....\$75 (non-refundable)
 AR Exam Fee\$85

TOTAL _____

Check (Number: _____)
 Money Order
 VISA
 American Express
 MasterCard
 Discover

Account Number—please include all digits				Month	Year
				Expiration Date	

Cardholder name: _____
(print name exactly as it appears on card)

Billing address: _____

CVV2 Code (3 or 4 digit # on back of credit card)			

City: _____ State: _____ Zip: _____

Cardholder AALAS membership number: _____

Cardholder Phone Number: _____

Country: _____

Signature: _____

- Please include all application fees with your completed application.
- Payable in U.S dollars only. Please make checks payable to **AALAS**.
- Submit application and fees to: AALAS, Attn: CMAR Certification; 9190 Crestwyn Hills Drive, Memphis, TN 38125-8538. Fax: 901-334-5156.
- Please refer to the CMAR Handbook for policies on refunds.
- For more information, send an e-mail to certification@aalas.org.



Section 5: Please submit all 24 CEUs together in a single form. For each CEU activity, please enter on the table below the title of the continuing education activity, the name of the sponsoring organization, the date of the event, and the number of CEUs earned. Insert your total CEUs at the bottom. Keep all documentation, but submit only if you are chosen for the annual audit.

CEU Activity	Sponsor	Date	CEU hours
1.			
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38.			
39.			
40.			
			Total CEUs _____