1. PRELIMINARY REMARKS

The **AIM** of this “Best Practice for ECLAM Publications” is to define a common standard on how to evaluate publications by ECLAM Diplomates used for re-evaluation purposes, as well as publications by applicants for accreditation to the ECLAM Diploma examinations.

The Best Practice is in accordance with the ECLAM Constitution and Bylaws, as well as the re-evaluation sheet used by all Diplomates after a five year re-evaluation period.

The Constitution requires in ARTICLE V - GENERAL REQUIREMENTS FOR BOARD EXAMINATION 5.1 that a candidate

- has been published or accepted for publication in an international peer-reviewed journal.
- has been the author of two original articles (of which one must be as first author) which demonstrate the application of scientific methods on topics that are relevant to laboratory animal medicine and science. The articles must have been published or accepted for publication in an international peer reviewed journal at the time of application for eligibility to undertake Board examination;

With respect to the Bylaws, there are publication requirements for founding and de facto Diplomates, however nomination of such Diplomates only played a role in the early stages of ECLAM and is no longer relevant. Thus, the use of the present “Best Practice for ECLAM Publications” is restricted to ECLAM Diploma exam applications and to the 5-yearly re-evaluation of a Diplomate’s status. The latter option also includes the possibility to gain re-evaluation points for a second author publication.

The following **definitions** are provided for guidance:

- first author
- primary author
- secondary author
- demonstration of application of scientific methods
- subjects which are relevant to Laboratory Animal Medicine
- accepted publication
- international journal
2. DEFINITIONS

(As authorship practices may vary among journals, the authorship recognized by ECLAM is described below.)

**a) first author:**
The first author has major impact on the publication i.e. he/she conceived the study, initiated the data collection, supervised the statistical analyses, and/or wrote the first draft. First authorship should be the consequence of relative creative leadership and creative contribution. The first author should be the person who has made the greatest contribution to the study. The first author need not necessarily be mentioned first in the list of all authors, but can also be listed at another position providing “equal contribution” to the manuscript as the first author is indicated in the manuscript by a footnote.

**b) primary author:**
Usually the authors of a publication are listed in non-alphabetical order. In this case the first and the last (or senior) authorship are considered as primary.

The senior author who directed the study and/or has final responsibility for the research protocol appears as the last author. The last author must not necessarily be mentioned last in the list of all authors but can also be named elsewhere in the list providing “equal contribution” to the manuscript as the last author is indicated in the manuscript by a footnote. If the authors of a manuscript are listed in alphabetical order, the primary authors need to be specified in a footnote to the manuscript.

**c) secondary author:**
Secondary authors are all other authors excluding the primary authors.

**d) demonstration of application of scientific methods:**
Application of scientific methods is demonstrated by creation of a relevant scientific hypothesis, by adequate description of the background of the scientific question, by logical study design, by minimisation of non-experimental variables, by guaranteeing the independence of observations, by optimising the quality of data, by selection of appropriate statistic methods, by rational conclusions, etc.

**e) subjects which are relevant to Laboratory Animal Medicine:**
Publications can include (but are not limited to) one of the major tasks:

h. peer-reviewed journal
• Prevention, diagnosis, control and treatment of diseases of laboratory animals
• Prevention alleviation, and minimisation of animal pain and distress
• Training of scientific, animal care and ancillary staff
• Research support (e.g. animal research techniques), information (e.g. comparative and normative biology, nomenclature), and services (e.g. pre and post-operative care, critical care, anaesthesia and analgesia, euthanasia)
• Developing and managing of animal husbandry programmes (incl. genetic and microbiological standardization procedures)
• Preparing and reviewing animal use protocols
• Designing and operating laboratory animal facilities
• Controlling the environment (e.g. physical, social) of laboratory animals
• Providing consultation and advice on compliance with laws, regulations and standards
• Selecting and production of animals for research
• Professional involvement in the design and conducting of biomedical research
• Contributing to the humane use of animals in biomedical research and searching for alternatives (3 R’s: Reduction, Refinement, Replacement)
• Contributing to ethical discussions on the use and care of animals in research
• Promoting the welfare and quality of life of research animals.

f) accepted publication
A publication is considered as accepted if a suitable representative of the respective journal (usually the editor) has declared acceptance to the corresponding author in written form. Publications accepted by ECLAM do not include Literature Reviews and Case Reports.

g) international journal:
National means the journal covers all the regions within one country or one nation, whereas international means more than one country or nation is involved (at least two or more). An international journal gathers in readers worldwide. A national journal generally has editors and readers from a single country. All journals which are cited in the ISI's (Information Sciences Institute) annual Journal Citation Report may be taken as international refereed journals.

h) peer-reviewed journal
Peer-review subjects a submitted manuscript to the scrutiny of one or more individuals who are experts in the field. These referees each return an evaluation of the work, including suggestions for improvement, to an editor or other intermediary. Evaluations
usually include an explicit recommendation of what to do with the manuscript or proposal, often chosen from a menu provided by the journal or funding agency.

Recommendations could include:

- accept the manuscript or proposal unconditionally;
- accept it providing its authors improve it in certain ways;
- reject it, but encourage revision and invite re-submission, or
- outright rejection.

During this process, the role of the referees is advisory, and the editor is under no formal obligation to accept the opinions of the referees. Furthermore, in the case of scientific publications, the referees do not act as a group, do not communicate with each other, and are generally not aware of each other’s identities. There is usually no requirement for the referees to achieve a consensus.

In cases of doubt whether a specific publication may be considered by ECLAM as peer-reviewed, ECLAM may request appropriate certification from the author(s).

ECLAM Credentials Committee