

Guidelines for Continuing Education for Persons Involved in Animal Experiments – Recommendations of a FELASA Working Group

Summary

Continuing Professional Development (CPD) is a prerequisite for many professional medical and scientific disciplines but less common for those involved in laboratory animal work.

Revision of Directive 86/609EEC will require that persons “are adequately educated, competent and continuously trained” (Article 23A).

FELASA has developed guidance on how such a CPD scheme could be introduced and has based this on seven principles:

- 1) People working with animals should have and maintain the state of the art knowledge and skills.
- 2) Continuing Professional Development should be available and organised in a flexible way.
- 3) CPD should commence when a person starts working with animals and continue through their working career.
- 4) The system should be based on the award of credits over a certain period of time.
- 5) There should be a process for review and endorsement of CPD activities which are for inclusion in a CPD program. Up to 50% of credits can be achieved from activities which are recognised by the institution.
- 6) Operation of the CPD scheme should be reviewed.
- 7) Communication between countries should be encouraged by the organisation of joint courses.

FELASA will encourage the uptake of CPD Schemes by Member Associations (or relevant authority) and maintain a list of types of activity that will satisfy CPD and an overview of courses endorsed by the Member Associations.

Member Associations will facilitate the introduction of CPD schemes, based on the FELASA principles, and adapt them to meet local needs. They will endorse courses, where appropriate, and provide information on endorsed courses.

The Institution, together with the individual, will determine the need for CPD activities and a record of them will be maintained by the individual. Compliance with the scheme will be achieved by a process of self-regulation.

The importance of practical as well as theoretical activities needs to be stressed when developing an individual’s CPD portfolio. Care should be made to meet internal needs since there are many different types of institution.

Working Group Members

David Smith, LASA (UK) Convenor

Alain Dorier, AFSTAL (France)

Rüdiger Hack, GV-SOLAS (Germany)

Mats Sjöquist, ScandLAS (Scandinavia)

Beatrice De Smet, BCLAS

Corresponding Member (Belgium)

Walter Zeller, SGV (Switzerland)

Joana Visa, SECAL (Spain)

Bob Ruane, Corresponding Member (UK)

Jürgen Weiss, Corresponding Member
(Germany)**Introduction**

Appropriate education and training for all those engaged in the use of live vertebrate animals for scientific purposes is required by both the Council of Europe (Convention ETS 123, Article 26) and the European Union (Council Directive 86/609/EEC, Article 14). The FELASA recommendations on education and training of persons working with laboratory animals, those carrying out animal experiments and specialists in laboratory animals science have, since 1995, 2000 and 1999 respectively, been publicised. These recommendations, in the main, relate to "formal education" linked with experience and it is considered that there is now a requirement to add a structured and accredited Continuing Professional Development programme to those recommendations.

Since the latest version of revision of the Council Directive 86/609/EEC includes a requirement for CPD it is thought essential that some degree of harmonisation of both the FELASA requirements and the process of evaluation of activities exists across Member States. This would facilitate movement of staff between laboratories.

There are a number of issues that need to be addressed to ensure a successful European CPD scheme:

- Enhance the trust of foreign qualifications by implementing harmonization principles

- Enhance the mutual recognition of qualifications by national competent authorities

- Stimulate the trust between related biomedical disciplines

- Promote provision of sufficient courses in appropriate languages

- Ensure that individual personal details are secured

The working group has developed principles and flexible guidelines which can be adapted by each national organisation and in doing so has responded to the Bologna process by introducing a pan-European system.

Continuing Professional Development (CPD)

Continuing Professional Development can be defined as a process of life-long systematic learning which in this context includes all those involved in animal

experiments. The content of the category A, B, C and D courses are continuously updated. Persons that already have received their basic training also have to get the corresponding updates. CPD enables individuals to meet high professional standards in order to deliver high quality scientific results to meet the scientific and regulatory priorities of employers and staff and therefore enables professionals to expand and fulfil their potential. It also allows individuals to take control of their own learning and development through empowerment, but it needs a structured approach to work successfully.

In addition to the personal benefits of CPD, it also ensures that the institution responds to new technology, the 3R's and societal views and demonstrates to regulatory authorities that the welfare of animals is maintained to current best practice. CPD also ensures, to animal welfare bodies and the public, that standards are continuously improving, that animal carers and technicians with up to date knowledge and skills are employed, and that professional researchers and supervisors are involved. CPD can also contribute to increased efficiency and effectiveness, a major benefit to employers. It could also improve the quality of the ethical review process if the members of the committees are covered by a CPD program.

There is no "defined" start point for CPD as it is expected that all persons involved in animal experiments will be encompassed by these recommendations and they will, at certain stages of their career, be involved in differing levels of CPD activity.

Situation Analysis

The education situation in the countries of the FELASA member associations is multifarious.

The working group used a questionnaire to establish the current status of CPD (2006) in the countries of member associations and to assess their views on the requirement for CPD and its method of working. Feedback was received from 15 member associations.

Established Systems of CPD

Continuing Professional Development is a prerequisite for many medical and scientific disciplines but is less common for those involved in laboratory animal work.

- Within Europe, the European College of Laboratory Animal Medicine (ECLAM) has a system for laboratory animal veterinarians (cat-D).
- In Germany the veterinary associations require up to 25 hours per year of specific continuing education from their veterinary specialists for laboratory animals/ laboratory animal science ("Fachtierarzt für Versuchstiere/ Versuchstierkunde") and animal welfare ("Fachtierarzt für Tierschutz"), respectively.
- Within the UK, toxicologists have a system managed by the British Toxicology Society and accredited by the Royal College of Pathologists.

- At the level of animal technologist, only Switzerland has a mandatory requirement for CPD (through its animal welfare act) for Categories A, B and C persons (four days in four years) and this is overseen by the Vereinigung der Schweizer Kantonstieraerztinnen und Kantonstieraerzte (VSKT).
- A pilot scheme, involving three pharmaceutical companies and one Contract Research Organisation, has been recently developed in the UK under the auspices of the Association of the British Pharmaceutical Industry (ABPI) and the Laboratory Animal Science Association (LASA). It is open to all levels of technician and uses a documented credit system which can be applied to a wide programme of activities. There is a requirement for 100 hours in five years.
- Also within the UK, CPD is a compulsory requirement for registered animal technologists (RAnTech) who are members of the Institute of Animal Technology (IAT). The RAnTech CPD scheme is administered and overseen by the IAT. CPD is actively encouraged for all other members of the IAT.

The need for a CPD scheme

Half of the member associations did not have any form of a CPD programme, but most think it would be necessary to have one for all FELASA categories (categories A, B, C and D).

Time needed for CPD activity

The amount of time required ranged from 8 to 16 hours per year as an average over a time period (up to 5 years). There was a consensus that Category D would need more time.

Types of activity

Suggestions included updates on new techniques, regulations and FELASA recommendations as well as progress on the 3R's (e.g. humane endpoints).

The need for accreditation

Half of the member associations considered that accreditation was required. However, there was no clear opinion on who should perform this task.

FELASA Principles of Continuing Education

Before establishing guidelines on the introduction and operation of a CPD scheme that each national organisation could adapt for their own territory, it is important that unifying principles are in place. In broad terms, these principles address the scope of the guidance i.e. why is it needed? What categories of person are included? How should it be delivered? What measures of quality should be included? How transparent should the system be? How portable is the system? What measure of compliance should exist?

The following 'principles' underpin the development and operation of a CPD scheme within any national association's country. The rationale for each principle is given and a set of guidance is proposed.

1) People working with animals (FELASA Categories A, B, C & D) should have and maintain state of the art knowledge and skills

- This is a prerequisite within the Directive 86/609 EEC
- Knowledge and technology are advancing quickly, particularly in the areas which promote uptake of the 3R's. These advances should be adopted
- Adequate resources should be made available to ensure an effective process
 - i. The individual, ideally with his/her manager, should assess the requirements and incorporate these into individual objectives
 - ii. The time needed to achieve objectives are outlined in section 4
- Laboratory animal science includes 'hands on' skills requiring practical expertise which can be lost without continuing experience
- It should apply to all persons working with experimental animals, including housing, breeding, planning and performing procedures

2) Continuing Professional Development should be available and organised in a flexible way

- Since opportunities for CPD may arise in different ways in different regions
 - i. Web based learning may be more appropriate than organising courses when a critical number of attendees can't be reached. In addition, workplace training courses, seminars etc can be a useful source of CPD.
- Although the principles remain the same the processes for large and small institutions may have to be designed differently
 - i. Small institutions may wish to collaborate to share courses in order to maintain adequate quality and to get critical mass
 - ii. Web versus paper based systems can be considered for maintaining portfolio

3) CPD should commence when a person starts working with animals and continue through the working career

- Since knowledge and technology are advancing quickly it is necessary to avoid any break in the learning process
- CPD should be part of the individual's development plan
 - i. The individual, ideally with their manager, should assess the requirements and incorporate these into individual objectives
- All CPD content can be available for all categories if it is appropriate for their development plan
 - i. Managers should be aware of the need for and availability of training across a broad spectrum of topics
- Peoples careers may undergo a change of direction requiring adaptation of the CPD to that of the new field of work

4) The CPD scheme is based on the award of credits over a certain period of time

- Accumulation of credits allows quantification of CPD efforts
- Each CPD activity should form part of a credit system based on the time spent on learning. The general principle is that one hour of learning corresponds to one credit.
- It is a requirement that learning should not be concentrated on a single subject but rather a range of different activities that would be included in the CPD portfolio.
- Practical and theoretical activities are equally important
- A list of endorsed and recognized activities is given in Appendix 1.
- No more than 50% of the credits can be achieved from recognized activities. For example, not more than 5 credits per year can be gained from recognised activities for a FELASA category B person (see point 5 for the endorsement process).
- Each individual maintains a portfolio documenting CPD, the content and credits acquired
- Both individual needs and the course delivery require flexibility.
 - i. The number of credits is averaged over a prolonged period of time (up to five years).
 - ii. All participants need to achieve a minimum number of credits during a certain number of years depending on their category. Category A on average 5 credits per year. Category B on average 10 credits per year. Category C on average 15 credits per year. Category D on average 20 credits per year.

5) Review and evaluation of CPD activities which are for inclusion in a CPD program

FELASA has considered three options for the evaluation process associated with attendance at conferences/symposia/workshops etc., and the attributes of each are summarised below:

	Accreditation	Endorsement	Recognition
Mutual acceptance	+++	++	+
Scheme credibility	+++	++	+
Consistency of standard	+++	++	(+)
Resource/effort	+++	++	+

Whilst accreditation (similar to that currently done for FELASA education and training modules) is clearly the most rigorous process, it is considered too heavy on resources, probably unworkable, but could be used in special occasions. A lighter touch using a process of endorsement or recognition for other activities is proposed. Examples of endorsed and recognized activities are given in Appendix 3.

- FELASA shall ensure consistency by maintaining information of suitable activities together with their credits to guarantee mutual recognition
 - i. Information on the types of activities that may contribute to CPD is given in the Appendix 1.
 - ii. The information will be made openly available on the FELASA web site
- Member associations will endorse courses (see Appendix 2 and Definition) and where possible decide their credits
 - i. The organisers of CPD courses submit an application describing the scope and propose credit allocation to the member association or a competent authority for endorsement
 - ii. A short single local course (< half a day) can be endorsed if it is part of a organised series

6) Operation of the CPD scheme should be reviewed

- Since it is essential that the effort put into the CPD scheme meets the requirements of the individual, the institution, the member associations and FELASA, the scheme has to be reviewed and kept up to date.
- To ensure compliance with the institutions CPD scheme
 - i. The institution will oversee individual portfolios in a self-regulating manner.
- To ensure that the scheme is meeting its objectives
 - i. Periodic reviews will be conducted by the institution in a self-regulating manner
- To ensure the introduction of the CPD schemes and to maintain them. The member associations play an important role. Communication of the CPD scheme to all those working with animals and the authorities should be ensured by member associations within FELASA
- To demonstrate that the schemes are in accordance with FELASA principles.
 - i. The FELASA board will seek information on the appropriateness of the schemes and revise the guidelines when needed.

7) Communication between countries should be encouraged by the organisation of joint courses

- To facilitate critical mass (e.g. language, remote topic) and to share best practice
 - i. Member associations should strive to identify topics where a critical mass is difficult to achieve and initiate collaboration

Roles and responsibilities

Individual	Addresses the need for his/her CPD (objectives) Responsible for maintaining her/his portfolios Asks the member association for endorsement of activities that are not listed
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Institution	<p>Determines the need for CPD activities</p> <p>Organises and offers courses and other activities</p> <p>Applies for endorsement of courses where appropriate</p> <p>Certifies attendance of participants</p> <p>Provides resources for participation in activities</p> <p>Oversees the individual compliance to the CPD process and the scheme in general (self-regulation)</p>
Member Association	<p>Facilitates the introduction of CPD schemes</p> <p>Specifies the adaptation of the FELASA CPD guidelines to local needs</p> <p>Endorse courses</p> <p>Provides information on endorsed courses</p> <p>Encourages collaboration among associations when needed</p>
FELASA	<p>Provides and updates the principles for CPD</p> <p>Encourages the uptake of CPD schemes by member associations</p> <p>Maintains a list of types of activity that will satisfy CPD</p> <p>Provides an overview of courses endorsed by the member associations</p>

Definitions

Activity – opportunity to gain CPD credits. See Appendix 1.

Basic education in the field of laboratory animal science

The FELASA category A refers to persons taking care of the animals (FELASA 1995), category B is person carrying out animal experiments (FELASA 2000), category C is person responsible for directing animal experiments (FELASA 1995) and category D refers to specialists in laboratory animal science (FELASA 1999).

Continuing Professional Development (CPD) can be defined as a process of life-long systematic learning which in this context includes all those involved in animal experiments.

Course - conference, practical training session, workshop, seminar, lecture etc offered by an institution, association, university, company etc

Evaluation of Activities – the process of evaluating the content of a new activity for appropriateness and assigning credits.

Accreditation – a formal process whereby a FELASA committee provides a judgement on a course. This provides an opportunity to get pan-European courses acknowledged

Endorsement – refers to an activity positively evaluated by a knowledgeable third party. This can be member associations or competent authority (eg. conferences), or other scientific body (eg. an educational committee at a university for lectures, the peer review process for publications).

Recognition – credits agreed by local management (Appendix 3)

Institution – any organisation that performs animal experiments or breeds laboratory animals

Individual's Development Plan is an ongoing jointly agreed set of objectives designed to further the individual's career.

CPD Scheme – describes the process of delivering knowledge, skills and attributes that persons involved in animal experimentation need for high quality professional practice

Member Associations - the national or regional FELASA member associations

Competent Authority – in some member states this is the body responsible for the endorsement of defined activities

Self-regulation – an internal audit that ensures compliance with an established process to set and meet CPD standards

References

FELASA (1995) FELASA recommendations on the education and training of persons working with laboratory animals: Categories A and C. *Laboratory Animals* **29**, 121-31

FELASA (1999) FELASA guidelines for the education of specialists in laboratory animal science (Category D). *Laboratory Animals* **33**, 1-15

FELASA (2000) FELASA recommendations for the education and training of persons carrying out animal experiments (Category B). *Laboratory Animals* **34**, 229-235

Appendix 1 - List of endorsed and recognised activities

The following examples are topics relevant to animal technology and welfare. It is a requirement that learning should not be concentrated on a single subject but rather a range of different activities to be included in the CPD portfolio.

List of endorsed activities

Education

Attendance at endorsed:

- Lectures 1 credit per hour
- Meetings 1 credit per hour
- Workshops 1 credit per hour
- Conferences 1 credit per hour

Teaching (at endorsed courses, first time only)

- Undergraduate or other training lectures 1 credit per hour
- Post graduate lectures 1 credit per hour
- Training courses 1 credit per hour
- Supervising PhD etc. 5 credits per year per student

Research presentation

Plenary lecture	5 credits
Invited lecture	5 credits
Poster/oral presentation	2 credits
Organising conference	5 credits

Publishing

Refereed article	5 credits first author or main author, 2 credits other authors
Chapter in book	10 credits
Review	10 credits
Editorial	5 credits
Referee paper or grant	1 credit per paper or grant

Higher education

Examined course	2 credits per educational hour
Post graduate qualification (MPhil or PhD)	2 credits per month (for 2 or 3 years) respectively
Non examined course	1 credit per educational hour

List of recognised activities

Education

Attendance at recognised:

- Lectures 1 credit per hour
- Meetings 1 credit per hour
- Workshops 1 credit per hour
- Conferences 1 credit per hour

Structured personal studies

Relevant literature reading	1 credit per educational hour
Journal reading	1 credit per educational hour
Computer based reading	1 credit per educational hour
Distance learning	1 credit per educational hour

Acquisition of specific skills or knowledge relevant to animal research: 1 credit per educational hour

Reading necessary to implement new techniques or procedures: 1 credit per educational hour

Unforeseen learning and development opportunities: 1 credit per educational hour

Professional activities

Examples

Learned society committees	2-5 credits per year (senior office extra)
Government committees	2-5 credits per year
Review of grant applications	1-5 credit
Member of editorial board	2-5 credits
Member of ethical review committee	1-5 credits
Member of FELASA working group	2-5 credits

Appendix 2 - Illustration of process of endorsement of conferences

Introduction

Assigning credits to activities such as giving a plenary lecture, teaching or publishing a refereed scientific article can be made by simply referring to the Appendix in the FELASA guidelines for CPD. Assignment of credits for attending a conference, however, is considered to be the most challenging aspect in the implementation of a CPD scheme.

Simple 'rules' have been developed to ensure that this aspect of endorsing conferences can be introduced with little resource implication for both the individuals maintaining their CPD records and the FELASA member association. These 'rules' could be applied to any scheme and serve to illustrate how this aspect of the FELASA CPD system could be implemented. Clearly, flexibility is needed when transposing these 'rules' to the various FELASA member associations.

Establishing suitability of conferences for CPD

This is a joint task for the organisers of the conference and the FELASA member associations. These may be the same organisation eg. FELASA member association conferences. Persons involved from the FELASA member association could be those responsible for the education, training or a separate committee for CPD endorsement.

The content of the conference is evaluated for its applicability to laboratory animal science (appropriateness, topic(s), experience of speakers, abstracts if available).

Assignment of credits

The FELASA member associations will assign credits on the basis of the FELASA recommendations for CPD. This is likely to be 1 credit per hour.

The conference programme will acknowledge that the content has been evaluated to meet the requirements for CPD. All attendees may not belong to the same CPD scheme and credits may vary.

Issue of CPD certificate

The certificate should contain the name of the participant, the names of the organising body, the endorsing body, title of the activity and the number of credits awarded to it.

The certificate of attendance may be issued at the end of the last session of the day or half day i.e. on a daily basis. It is the responsibility of the attendee to collect their certificates.

The issue of certificates may vary. In some cases they are forwarded to the attendee after the event. A simple bar coded system incorporated into the conference name badge may be used to identify attendees.

Verification of CPD records

The CPD scheme has been deliberately developed to ensure flexibility and low maintenance (little resource). The requirement for verification of CPD records will vary from organisation to organisation and country to country depending upon the requirements of either the competent authority, organisation's management, GLP requirement, or which CPD scheme the individual may belong to.

Mutual recognition of CPD schemes

As the requirement for CPD grows within the scientific community it is anticipated that an increasing number of conferences will become eligible for CPD credits. Discussions between scientific organisations and the FELASA member associations should be held to encourage such endorsement.

Appendix 3 - Practical examples of how credits are calculated.

Name:

Department:

CPD Number :

Type / Title of Activity:

1.IAT Certificate – Education	1 Year 15 credits (endorsed)
2.Home Office Module 5 - Training Course	1.5 Days 10 credits (endorsed)
3.IAT Congress 2005 – Meeting	3 Days 15 credits (endorsed)
4.How the use of Lab animals can be justified – Lecture	1 Hour 1 credit (recognised)
5.Ethics of animal use and legal obligations – Workshop	4 Hours 4 credits (endorsed)
6.Animal (Scientific Procedure) Act 1986 & 1968 – Lecture	1 Hour 1 credit (endorsed)
7.Legislation – Lecture	1 Hour 1 credit (endorsed)
8.The Laboratory Rat - A Natural History – Lecture	1 Hour 1 credit (recognised)
9.Project Licence Update – Lecture	1 Hour 1 credit (recognised)
10.Effective Methods Of Enrichment For Reg Studies – Lecture	1 Hour 1 credit (recognised)
11.An Introduction To DMPK – Lecture	1 Hour 1 credit (recognised)
12.IAT Membership – Education	2 years 30 credits (endorsed)
13.Provantis 7 Data Input - Training Course	1.5 days 8 credits (recognised)
14.Provantis 7 Protocol Input - Training Course	1 day 6 credits (recognised)
15.Safety Pharmacology Overview – Lecture	1 hour 1 credit (recognised)
16.IAT Congress 2007 – Meeting	3 days 15 credits (endorsed)

Supporting documents:

- 1.IAT Certificate - Course - Exam Results
- 2.Home Office Module 5 - Course - Certificate
- 3.IAT Congress 2005 - Meeting - Reflective Learning
- 4.How use of Lab animals can be justified - Lecture - Certificate / Reflective Learning
- 5.Ethics of animal use and legal obligations - Workshop - Certificate / Reflective Learning
- 6.Animal (Scientific Procedure) Act 1986 & 1968 - Lecture - Certificate / Reflective Learning
- 7.Legislation - Lecture - Certificate / Reflective Learning
- 8.The Laboratory Rat A Natural History - Certificate / Reflective Learning
- 9.Project Licence Update - Questionnaire
- 10.Effective Methods Of Enrichment For Regulatory Studies - Certificate / Reflective Learning
- 11.An Introduction To DMPK - Certificate / Reflective Learning
- 12.IAT Membership - Course - Exam Results
- 13.Provantis 7 Data Input - Course Attendance / Passed
- 14.Provantis 7 Protocol Input - Course Attendance / Passed
- 15.Safety Pharmacology Overview - Reflective Learning
- 16.IAT Congress 2007 - Meeting - Reflective Learning