European Union Committee Sub-committee D (Environment and Agriculture)

Inquiry into the Revision of the Directive on the Protection of Animals Used for Scientific Purposes

Summary of evidence submitted by the Animal Procedures Committee

1. **What degree of harmonisation of rules governing the protection of animals in research is required to avoid distortions of the Single Market? To what extent are such distortions causing problems at present, and is the draft Directive a proportionate response to those problems?**

- There are currently potential causes of distortion within the Single Market due to variations in national laws regulating the care and use of animals in research and testing.
- Harmonisation of the regulation of animal experimentation to a good standard, including training, the authorisation process and ethical review, is necessary.

2. **How might high(er) animal welfare standards in the EU impact upon the international competitiveness of the EU's private and public sector research base, and that of commercial establishments carrying out routine testing? Is there a risk of displacing research using animals to third countries and, if so, what would be the consequences of such a trend?**

- We welcome high welfare standards because good science and good animal welfare usually go hand in hand
- The Directive should reflect the EU's Better Regulation agenda, which is aimed at reducing administrative burden and ensuring a proportionate approach to legislation.
- Some APC members believe that some of the provisions in the proposal would merely increase bureaucracy and therefore costs. Others believe that the provisions reflect the need for proper regulation of animal care and use.
- Concerns that unjustified increases in bureaucracy could diminish international competitiveness, for example by acting as an incentive to move work to non EU countries, are held by some members.
- It has been suggested that limiting primate research to that which could ameliorate "life-threatening or debilitating" conditions may lead to some work being done in non EU countries. However, the term "debilitating" is open to interpretation, so the implications of this proposal are not clear.

3. **Are the proposed restrictions [on non-human primate use] proportionate, and what might be their impact?**

- Most APC members hold the view that primate use should be subject to the same authorisation process as the use of any other species, without restrictions on purpose. However, one member believes that restrictions on primate use are justified on animal welfare and ethical grounds.
- The need to change to F2+ primates is not in dispute due to the pressing animal welfare and scientific issues involved.

- The requirement to have a strategy to increase the supply of F2+ animals to the EU is likely to increase the costs of undertaking primate research.
- Balancing the financial costs to primate users against the welfare implications of trapping from the wild, we agree that the Directive should include a strategy for changing to F2+ primates.
- The role of the National Animal Welfare and Ethics Committee should include advising the Competent Authority on the suitability of overseas primate suppliers.
- The proposed study on the feasibility of changing to F2+ primates should be completed within the proposed timescale of eighteen months, so that realistic targets for the changeover to using only F2+ animals can be set.

4. Are the proposed extensions to the scope of the Directive justified, and what might be their impact?

- It is difficult to set out definitive criteria that can be used to judge whether or not species of animal are capable of suffering.
- It appears that the mammalian fetus may not become sentient until following birth, once breathing has commenced.
- The precautionary principle should be applied and procedures on the developing mammalian and avian fetus should be regulated. The APC supports the current proposal for the final third of the development period, as there has to be a "cut off point" in practice.
- An Annex to the Directive could list species-specific developmental stages of vertebrate that have been demonstrated to be capable of suffering.
- Procedures on Cyclostomes, or Agnatha, should be regulated.
- Research on species of cephalopod and decapod crustaceans has concluded that at least some species may be able to experience pain.
- If some cephalopod and decapod species are included in the new Directive, an option to reduce paperwork could be to regulate their care and use but not require statistics on procedures to be submitted centrally.
- Regulating research on invertebrate larvae may be unrealistic at present.

5. Are the administrative demands that the draft Directive would impose overall proportionate to its objectives?

The APC has concerns relating to three Articles and one Section of the proposal, which we discuss in paragraphs 5.2, 5.3, 5.4 and 5.5:

- Authorisation and oversight of breeding and supplying establishments (Article 21);
- Suspension and withdrawal of authorisation for minor technical infringements (Article 22);
- Granting of project authorisation (Article 41), in which the duration of project authorisation is reduced to four years;
- Requirements for projects (Section 4), i.e. whether the degree of control should be adjusted in relation to the potential harm to the animals.

6. Do any of the provisions relating to the authorisation of persons, the requirements for establishments, the inspection regime, or project requirements require further consideration and/or amendment and, if so, why?

The APC believes that several Articles require further consideration, which is discussed in paragraphs 6.2, 6.3 and 6.4:

- Authorisation of persons (Article 20), which should be more prescriptive with respect to ensuring that persons are appropriately trained and competent and how this should be documented.
- Tasks of the permanent ethical review body and ethical evaluation (Articles 26 and 37), with respect to statistical experimental design, interpretation of studies and reviewing scientific progress.
- Amendment, renewal and withdrawal of a project authorisation (Article 42). Some APC members feel that it should be possible for mild and moderate project amendments, which do not increase the severity classification, to only require notification to the Competent Authority. Other members take the view that all levels of severity should be subject to the same scrutiny throughout the licensing process, including amendments.

7. Are the care and accommodation standards set out in Annex IV to the Directive appropriate, and will they produce an adequate level of harmonisation across the EU?

- The care and accommodation principles in Annex IV are largely appropriate, if somewhat inexplicit and lacking detail in some aspects.
- Annex IV is taken from specific guidance given as Appendix A to Council of Europe Convention ETS 123, but it is an abridged version in which much important explanatory text is missing.
- Annex IV should incorporate both the text and tables from Appendix A.
- Annex IV does not acknowledge the potential need for different housing standards for animals under procedure and it is inconsistent in that it does not recommend air conditions for any species other than reptiles and amphibians.
- The current Annex IV leaves scope for a lack of harmonisation if some Member States, such as the UK, continue to apply specified guidance whilst others merely interpret principles.

8. How satisfactory are the provisions on alternatives to animal testing and National Reference Laboratories (Art. 46)?

- It is not clear from the proposals how the Commission and Member States are to be encouraged to contribute to the development of such alternatives.
- The concept of National Reference Laboratories is flawed. An alternative approach is needed in which research can be better coordinated and focused on areas of greatest need.
- The role of ECVAM should be reviewed and expanded beyond the validation of alternatives to regulatory toxicity testing.

9. Is it appropriate to regulate at the EU level – as opposed to lower tiers of government – in all of the proposed areas? Is the legal base for the proposal adequate in light of the content of the Directive?

- Regulation at the EU level could provide properly harmonised standards and a “level playing field” across all Member States, which would seem to be desirable.
- Member States should be able to implement higher standards than the Directive if they wish to do so.

Evidence submitted by the Animal Procedures Committee

Introduction

The APC agrees that Directive 86/609/EEC is in need of revision, in order to accommodate progress in scientific techniques, the Three Rs (replacement, reduction and refinement) and understanding of animal behaviour.

We recognise that a degree of harmonisation of the regulation of animal care and use is essential to ensure that the objectives of the internal market are met and that animal use is avoided and replaced wherever possible throughout the EU. It is also critically important in maintaining consistently good standards of research animal welfare within and between Member States. At present, this is not achieved due to variations in national laws.

The UK Animals (Scientific Procedures) Act 1986 (ASPA) is widely regarded as promoting good standards of animal care and use and the APC believes that the standards within the ASPA should not be weakened or compromised in any way as a result of the Directive revision.

Views of the APC on Directive 86/609

The APC has regard both to the legitimate requirements of science and industry and to the protection of animals against avoidable suffering and unnecessary use in scientific procedures. This is an especially difficult balance with respect to drafting international legislation and we could not always achieve a consensus view when discussing the questions below. In these cases, we have set out the differing viewpoints and we hope that this will be of use to the Environment and Agriculture Sub-committee.

The APC notes that there are some ambiguities in the wording of the current Commission proposal, leading to a lack of clarity in certain areas. We have not highlighted all of these, as we understand that the Home Office consultation will be covering more specific issues such as the precise wording of the draft. However, we have mentioned inconclusive wording where it is relevant to our answers to the questions in the Call for Evidence.

1. **What degree of harmonisation of rules governing the protection of animals in research is required to avoid distortions of the Single Market? To what extent are such distortions causing problems at present, and is the draft Directive a proportionate response to those problems?**

1.1 A good law regulating the care and use of animals in research and testing should serve the purpose of facilitating more consistent and valid scientific data, as well as ensuring acceptable standards of animal welfare and addressing public concerns. The way in which animals are reared, transported, handled, housed and cared for has a direct effect on their physiology, such that poor practice can result in significant physiological and

behavioural responses that could affect research data quality. Furthermore, conducting procedures without ensuring that any pain, suffering or distress is minimised can also lead to physiological responses that may confound results (we can supply references on request).

1.2 Discrepancies in the conduct of animal experiments and in the quality of housing and care could therefore result in variations in the quality and validity of scientific data and results within and between Member States. However, there is no evidence that studies conducted in the EU yield unreliable results. In addition, differing standards of ethical review and decision making regarding necessity and justification will lead to variations in the competitiveness of science at a national level.

1.3 Current potential causes of distortion within the Single Market include variations in the rigour of authorisation of procedures, animal accommodation requirements, training and licensing of individuals, projects and premises and the development of alternatives. We do not know the extent to which the Single Market may be distorted at present. However, it is clear that harmonisation of the regulation of animal care and use to a good standard, including training, the authorisation process and ethical review, is necessary. Harmonisation should also ensure mobility of scientists and projects between Member States and negate the distortions in the cost base of animal research for different countries.

1.4 Views within the APC differ with respect to whether the proposal as currently drafted is a proportionate response to improving harmonisation. One member believes that it is appropriately prescriptive so as to facilitate an appropriate level of harmonisation, with the flexibility to incorporate new knowledge about animal behaviour, physiology and welfare into national legislation. Furthermore, the housing and care guidelines were agreed (at the Council of Europe) with full input from all stakeholders, including academia and industry, as was the advice to the Commission on the authorisation process. Another member considers that the proposal is overly prescriptive in the areas of authorisation and care and accommodation and that it includes some provisions that would bring very little animal welfare benefit, but would increase the costs to researchers.

1.5 Notwithstanding these different viewpoints, a certain level of prescription is desirable from the UK point of view. This is because it would prevent other Member States from interpreting loose principles in order to be more competitive and still comply with the same Directive, albeit with standards of science and animal welfare that would fall below those in the UK.

2. **How might high(er) animal welfare standards in the EU impact upon the international competitiveness of the EU's private and public sector research base, and that of commercial establishments carrying out routine testing? Is there a risk of displacing research using animals to third countries and, if so, what would be the consequences of such a trend?**

2.1 Both the bioscience community and animal welfare organisations welcome high welfare standards because good science and good animal welfare usually go hand in hand. The EU should be at the forefront in promoting best practice in animal welfare where there is sound scientific evidence of benefit. This in turn should provide a stimulus to non EU countries to raise their welfare standards.

2.2 The Directive should reflect the EU's Better Regulation agenda, which is aimed at reducing administrative burden and ensuring a proportionate approach to legislation. Some APC members hold the view that some of the provisions in the proposal would merely increase bureaucracy with little or no enhancement of animal welfare. Examples include inclusion of invertebrates within the scope, the proposed authorisation process, limitations to certain types of research and the requirements for housing and care (these issues are addressed later in this document). Others disagree and believe that the provisions are at an appropriate level, reflecting the need for proper regulation of animal care and use and recognition of public concerns.

2.3 Concerns that unjustified increases in bureaucracy could increase research costs and diminish international competitiveness are held by some members. There is already a trend for industry to develop new facilities in the Far East and they believe that further escalation of costs could speed this long term relocation, since cost is one of the drivers of work to non EU countries. Conditions of animal care and use in some of these countries may not be up to European standards and will clearly be out of the control of the EU. There is thus clearly a need to take these issues into account to an appropriate extent, although they should not force the relaxation of EU regulations to unacceptable levels.

2.4 Proposals to limit research that can be undertaken in non-human primates to that which could ameliorate "life-threatening or debilitating" conditions may lead to some fundamental studies being done in non EU countries. Commonly cited examples are research into memory disorders, attention deficits, neurostimulation and vision. However, the term "debilitating" is open to interpretation as it literally means "weakening" or "incapacitating". On that basis, it is not clear whether or to what extent the current wording of the proposal would have an impact on primate research in the EU. The APC believes that this Article is not meaningful as currently drafted.

3. Are the proposed restrictions [on non-human primate use] proportionate, and what might be their impact?

3.1 Members of the APC hold a range of views regarding the various current issues within primate research and testing. These include the acceptability of primate use *per se*; whether and how there should be a strategy to replace primate experiments; and how realistic and desirable it might be to set timescales for moving to the use of F2+ animals. The views set out below in answer to this question are the majority view of the APC, but they are not unanimous.

3.2 *Purposes of primate use*
The majority of the APC members hold the view that primate use should be subject to the same scrutiny with respect to necessity and justification, and the same harm-benefit assessment, as the use of any other species. That is, there should be no restrictions on the permitted purposes of primate use. Instead, there should be sufficiently robust authorisation requirements and ethical reviews to ensure that primate experiments are appropriately challenged as a "built in" part of the process, taking into account the cognitive abilities of these animals and possible links between these and their ability to suffer. However, one member believes that restrictions on primate use are justified on animal welfare and ethical grounds and wholly proportionate to the level at which primates can suffer and the public concerns regarding the acquisition and use of these animals.

3.3 *Great Ape use*
The draft proposal is pragmatically worded. Even if Great Ape experiments were banned, any scenario requiring their use would probably be exceptionally serious and urgent, such that these animals would be used regardless of the Directive and national laws. We hope that the likelihood of this would be extremely small.

3.4 *Strategy for breeding and supplying establishments to change to F2+*
The need to change to F2+ primates is not in dispute. A number of authoritative reports have stated that moving to F2+ is desirable due to the pressing animal welfare, health and scientific concerns, such as the reports by SCAHAW[1] and the APC Primates Sub-committee[2]. Trapping wild primates can cause significant distress, suffering and physical injury. There are also a number of scientific implications, e.g. using animals only one generation away from the wild would be unthinkable in other species such as rats or mice for scientific reasons.

3.5 We note that the EU is a relatively small user of primates on a global scale, and that breeding establishments of non-human primates are mostly located outside the EU. The requirement to have a strategy to increase supply of F2+ animals to the EU, which is not a major customer of these suppliers, is likely to increase the costs of undertaking this type of research in the EU. This is because F2+ animals are more expensive and the cost is passed on to the customer requesting them, which has led to a two tier price structure at some breeding centres.

3.6 Notwithstanding this, the APC Primates Sub-committee suggested that breeding centres accepted to supply primates to the UK should have a strategy in place for moving to F2+ animals:

[1] European Commission (EC) Scientific Committee on Animal Health and Animal Welfare (SCAHAW) (2002) *The Welfare of Non-human primates Used in Research.* EC: Brussels
[2] APC Primates Sub-committee (2006) *Acceptance of Overseas Centres Supplying Non-human Primates to UK Laboratories*. APC: http://www.apc.gov.uk/reference/primate-sources-report.pdf

> "The UK should require any centre that traps from the wild to have a clearly defined strategy to decrease reliance upon wild populations and move to the supply of F2 animals only (for example by gradually decreasing their trapping quota and retaining a significant and increasing proportion of first generation offspring for breeding second-generation stock). The overall progress towards this goal for centres generally should be kept under review by the PSC[2]."

3.7 Balancing the financial costs to primate users against the welfare implications of trapping from the wild, we agree that the Directive should include a strategy for "increasing the proportion of animals that are the offspring of non-human primates that have been bred in captivity". We recommend that the role of the NAWEC should include advising the Competent Authority on the suitability of overseas primate suppliers and monitoring progress towards supplying F2+ animals only.

3.8 *Timescale for change to F2+ primates*
We do not understand how timescales can be set for the various species without first obtaining the results of the proposed feasibility study. It is thus essential that the feasibility study should be completed within the proposed timescale of eighteen months. The switch to F2+ should then be accomplished within whichever time periods are recommended by the study, even if these differ from the estimates in the original draft.

4. Are the proposed extensions to the scope of the Directive justified, and what might be their impact?

4.1 It is difficult to set out definitive criteria that can be used to judge whether or not species of animal are capable of suffering. Suggested criteria for the ability to experience pain include a suitable central nervous system and receptors; avoidance learning; protective motor reactions such as limping or rubbing; physiological changes; evidence of reduced pain responses with analgesia; and high cognitive ability and sentience[3]. Most vertebrates have been demonstrated to fulfil these criteria and so have many invertebrates, suggesting that either these invertebrates can experience pain or that at least some of the criteria are erroneous or insufficient[4].

4.2 This means that, to an extent, all legislation that aims to protect animals operates according to a "benefit of the doubt" principle. The key question is how far legislation should go in applying this concept, given the desire to spend resources wisely yet not risk causing avoidable suffering. It is also important to consider and try to weigh the economic, scientific and moral consequences of not protecting species that are capable of experiencing suffering on the one hand, as opposed to including those that cannot suffer on the other.

4.3 We considered the proposed additions to the scope with respect to (i) developmental stages of vertebrate species, (ii) invertebrates and (iii)

[3] Elwood RW, Barr S & Patterson L (in press) Pain and stress in crustaceans? *Appl. Anim. Behav. Sci*.
[4] Sherwin CM (2001) Can invertebrates suffer? Or how robust is argument-by-analogy? *Anim. Welf.* **10:** S103-S118

developmental stages of invertebrates. There will inevitably be an impact if procedures are regulated when they were previously not regulated. However, the APC is not in a position to estimate what this might be in each case.

4.4 *Developmental stages of vertebrates*
To summarise current research on fetal development and sentience, it appears that the mammalian fetus moves between different sleep phases and may not become sentient until following birth, once breathing has commenced. Reasons for this include oxygen in the blood not reaching requisite levels for higher brain function and the presence of hormones that suppress consciousness[5,6]. However, there are concerns that there may still be transient episodes of awareness and that experimental procedures may arouse the fetus to a temporary state of sentience[7]. There are also concerns that painful stimuli to the fetus might adversely affect welfare after birth, even if the fetus did not consciously perceive pain at the time of stimulation, but no direct studies have tested this[8]. If an experimental manipulation is predicted to cause suffering after birth and the animal is to survive after birth as part of the experiment, then the procedure should obviously be licensed.

4.4.1 The domestic fowl fetus reaches a stage of development at which it is capable of a cerebral state resembling awareness after day seventeen, which is 80 % of the incubation period. It is probably in a sleep-like state for most if not all of the time during the rest of the incubation period, but there is particular uncertainty about the period between internal "pipping" and hatching, when the fetus gains access to atmospheric air[6].

4.4.2 Taking this current knowledge into account, the APC believes that the precautionary principle should be applied and procedures on the developing mammalian and avian fetus should be regulated. We also apply the precautionary principle because this research has only been conducted on a limited number of species. The proposed period for regulation of the final third of gestation or incubation is arbitrary and not based on any empirical evidence, but then the same is true of the current UK ASPA, which licenses procedures conducted after halfway through development. The APC supports the current proposal for the final third for pragmatic reasons, as there has to be a "cut off point". The half way point works well in the UK so other Member States should be able to comply with a less rigorous limit (NB procedures on the fetus are not published in the annual UK statistics on animal use or centrally recorded; the same approach could be used in the Directive.)

4.4.3 The draft Directive applies to other vertebrates (i.e. fish, amphibia and reptiles) from the time when they are feeding independently. This is the same

[5] Mellor DJ & Diesch TJ (2006) Onset of sentience: The potential for suffering in fetal and newborn farm animals. *Appl. Anim. Behav. Sci.* **100:** 48-57
[6] Mellor DJ & Diesch TJ (2007) Birth and hatching: Key events in the onset of awareness in the lamb and chick. *NZ Vet. J.* **55:** 51-60
[7] European Food Safety Authority Animal Health and Welfare Panel (2005) *Aspects of the Biology and Welfare of Animals Used for Experimental and Other Scientific Purposes*. http://www.efsa.europa.eu/
[8] Mellor DJ, Diesch TJ, Gunn AL & Bennet L (2005) The importance of 'awareness' for understanding fetal pain. *Brain Res. Rev.* **49:** 455-471

as the current UK ASPA and is presumably a precautionary measure in recognition of the fact that these larvae are responding to their environment in a way that suggests sentience. This system of regulation also works in the UK.

4.4.4 An Annex to the Directive could list species-specific developmental stages that have been demonstrated to be capable of suffering, to be revised as appropriate when new knowledge becomes available.

4.5 *Invertebrates*

The draft proposal suggests regulating procedures on Cyclostomes (Agnatha), or lampreys and hagfish, referring to them as invertebrates. It is not clear whether this is taxonomically correct. There is a view that, on the basis of morphological and physiological characteristics, lampreys are true vertebrates and hagfish are a sister group of the Vertebrata. However, the Natural History Museum places Agnatha in the Subphylum Vertebrata. The proposal is therefore unclear from a taxonomic point of view and it might have been better to propose regulating procedures on the Craniata, i.e. all animals having a skull. The APC believes that procedures on Cyclostomes or Agnatha should be regulated in any case.

4.5.1 A number of studies and reviews of recent research on species of cephalopod and decapod crustaceans have concluded that at least some species fulfil many of the key criteria that are generally accepted as necessary for animals to experience pain, as set out above[3,4,9]. Researchers into cognition and pain in these species have concluded that either these animals can experience pain or the criteria for determining this are wrong – which would cast doubt upon the ability of many other non-human animals to suffer[4]. If decapod crustacea and cephalopods are to be given the benefit of the doubt, then scientific procedures on them should be regulated.

4.5.2 This would clearly require resources and presents an ethical dilemma. For example, invertebrates are used in environmental safety studies, including as “replacements” for higher species such as fish and mammals. Including cephalopods and decapods in the Directive will add bureaucratic costs in terms of counting and reporting and could detract from their use in developing alternatives. However, if these animals are capable of suffering, the extent to which they can be regarded as alternatives becomes debatable.

4.5.3 If some cephalopod and decapod species are included in the new Directive, an option to address concerns about counting these animals could be to regulate their care and use but not require statistics on procedures to be submitted centrally, as with procedures on the fetus in the UK. The suggested Annex to the Directive above could also list invertebrate species whose use should be regulated, once there is evidence of sentience.

4.6 *Developmental stages of invertebrates*

The draft Directive applies to independently feeding larval forms of

[9] Mather JA (2008) Cephalopod consciousness: Behavioural evidence. *Cons. Cogn.* **17:** 37-48

invertebrate. However, decapod and cephalopod larvae begin feeding soon after hatching and the stage at which the potential for suffering begins is not known. Assuming that research on these animals is to be regulated, it would be in principle neither logical nor desirable from a welfare aspect for regulation to begin at the time when metamorphosis is completed. We are unable to suggest a meaningful "cut-off" point due to lack of scientific evidence and it may be that regulating research on invertebrate larvae would not be realistic at present.

5. Are the administrative demands that the draft Directive would impose overall proportionate to its objectives?

5.1 The APC has concerns relating to three Articles and one Section of the proposal.

5.2 Article 21 *(Authorisation of establishments)*
The commission's proposed authorisation and oversight of breeding and supplying establishments, unless qualified, could extend to animal types not purposely bred for laboratory use. The likely increased resource costs of including these animals within the scope of the Directive would not be proportionate to the benefits of doing so, assuming that Member States had other effective national animal protection legislation in place. This may or may not be the case in individual Member States.

5.3 Article 22 *(Suspension and withdrawal of authorisation)*
Suspension and withdrawal of authorisation for minor technical infringements of non-compliance allows no flexibility and would require an establishment to stop all work, requiring animals to be killed. This would be a disproportionate response and with no mechanism for appeal it is unreasonable. It would also be a very strong disincentive to self-reporting, to the detriment of animal welfare. Defining different "levels" of infringement in relation to their impact on animal welfare, and proportionate responses to these, could be a constructive solution (e.g. see Home Office Inspectorate Annual Reports[10]).

5.4 Article 41 (*Granting of project authorisation*)
The proposal suggests that project authorisations shall be granted for a period not exceeding four years. The vast majority of project licences in the UK run for five years; reducing the duration would place a burden on both PERBs and inspectors without providing any obvious gains in animal welfare.

5.5 Section 4: Articles 35 to 43 (*Requirements for projects*)
Some members hold the view that the Directive does not apply proportionality in that the degree of control is not adjusted in relation to the potential harm to the animals. An example is animals humanely killed for tissues. This work would require all the levels of authorisation, ethical assessment and evaluation, and approval as invasive studies on living animals. This is very different to a severe study involving dogs, for instance. Another example is the need for minor amendments to projects, which do not change the severity

[10] http://scienceandresearch.homeoffice.gov.uk/animal-research/publications-and-reference/publications/reports-and-reviews/

limit, to have to be subjected to the same process as new licences. Some members believe that this is not appropriate and that levels of authorisation should be proportionate to severity (see also para 6.3.2 below).

6. Do any of the provisions relating to the authorisation of persons, the requirements for establishments, the inspection regime, or project requirements require further consideration and/or amendment and, if so, why?

6.1 The APC believes that several Articles require further consideration, as set out below.

6.2 Article 20 *(Authorisation of persons)*
This article should be more prescriptive with respect to ensuring that persons are appropriately trained and competent. It should require that procedures be in place to ensure that prospective licensees are supervised during training until they are able to demonstrate competence through testing and assessment. Demonstrated competence and authorisation should be for an agreed fixed period of time, in respect of specific procedures, and it should be documented. Proper documentation will enable auditing to monitor compliance.

6.2.1 Maintenance of a personal documented training competence record covering designated procedures would avoid the need for applicants to demonstrate competence by practical testing at licence renewal. Member States should recognise and mutually accept authorised documented training competence to conduct designated procedures. A common EU training framework, together with the requirement for continuing education would facilitate this. These provisions would also be in keeping with the spirit of harmonisation and the free movement of skilled persons.

6.3 Article 26 and 37 *(Tasks of permanent ethical review body and Ethical evaluation)*
The APC recommends that the local Permanent Ethical Review Body (PERB) in user establishments should either include a person with expertise in statistics, or be able to access that expertise when required. Expert statistical input at the ethical evaluation stage (Article 37) is also essential, but may be too late to avoid mistakes and unnecessary animal use. It is essential that user establishments utilise appropriate statistical input at the design stage of animal studies, optimise studies before running them routinely and monitor their performance, which all helps with the implementation of the Three Rs.

6.3.1 The PERB should form an integral part of the authorisation process. The scientific progress of all projects should be reported to the local ethical review body, in addition to the other tasks set out in Article 26(1). This process is distinct from ethical evaluation (Article 37) or retrospective assessment (Article 38) by the Competent Authority.

6.3.2 Furthermore, it is not clear how ethical assessment and ethical evaluation will work together, especially where the role of the Competent

Authority has been delegated to another body. Some APC members believe that, in accordance with general regulatory principles, the extent of control should be proportional to the harm caused by the procedures and the potential welfare gains of regulation. The level of bureaucracy and burden of costs should be minimised when harms are least, allowing the Competent Authority to concentrate on projects where the harms are greater. Other members believe that all projects should be subject to the same level of regulation and ethical review, with extra scrutiny paid to projects involving procedures that may cause substantial suffering. In either case, proper classification of severity is essential.

6.3.3 If scientific monitoring and reporting of project progress are effective, then formal retrospective review of each project every year by the Competent Authority would add little value to animal welfare. Any formal project review and/or subsequent amendment(s) to procedures by the Competent Authority should be at appropriate times and intervals, depending on the nature of the project. This could be initiated by the PERB.

6.4 Article 42 *(Amendment, renewal and withdrawal of a project authorisation)* Some APC members felt that it should be possible for mild and moderate project amendments that do not increase the severity classification to be given by the local PERB and only require notification to the Competent Authority. This process would deliver efficiencies, as the local PERB would already be monitoring projects (see above). The PERB should operate within set boundaries and report to the Competent Authority to ensure consistency in its judgements.

6.4.1 Other members did not agree, taking the view that all levels of severity should be subject to the same scrutiny throughout the licensing process, including amendments. There were concerns that there could be a series of amendments, each of which did not appear to alter severity but that ultimately resulted in increasing severity. The local perception of severity levels might drift over time within an institution, without external input by way of comparison. Also, numbers of animals could potentially be increased without affecting the severity level to each one, but this would increase the overall harms to animals of the project.

7. Are the care and accommodation standards set out in Annex IV to the Directive appropriate, and will they produce an adequate level of harmonisation across the EU?

7.1 The care and accommodation standards in Annex IV are largely appropriate, if somewhat inexplicit and lacking detail in some aspects. Guidance on the requirements of an increased range of species over the present UK Codes of Practice (CoPs) is welcome, as are other inclusions such as the explicit guidance on adjusted lighting levels for albino animals. The guidance was taken from Appendix A to Council of Europe Convention ETS 123, which was constructed over some twelve years, taking evidence-based advice from a wide range of individuals and organisations with expertise and experience in animal care. However, Annex IV to the draft

Directive is an abridged version of Appendix A in which much of the explanatory text is missing.

7.2 As a result, Annex IV is less detailed than the current UK CoPs. A further concern is that it combines guidance for the accommodation of animals under procedure with those for breeding and/or supply. This reflects the fact that the Annex was designed to fulfil the behavioural and physiological requirements of the species in question. The problem lies in that the proposed guidance, as abstracted from Appendix A, fails to take account of the difference in accommodation sometimes needed when animals are under long-term procedures. Pigeons, for example, are often used individually in daily behavioural tests of learning and memory, but under the proposed guidance would have to be accommodated in large communal stock cages where the inability to feed the birds individually would frustrate the running of the experiment. The potential need for different standards for animals under procedure should at least be acknowledged in Annex IV, and it should include a means of applying specified variations that are justified on scientific or animal welfare grounds.

7.3 Much of the advice provided in Appendix A was aimed at preventing basic errors of husbandry and the full text provided encouragement towards good practice, with advisory qualifications. It is a great pity from the point of view of animal welfare that so much of this text was removed when producing Annex IV. It would have been preferable for Annex IV to incorporate both the text and tables from Appendix A.

7.4 Facilities should have the option to adopt additional provisions demonstrated to improve welfare, with advice from the PERB. Reinstating the full text, plus tables, would provide a basic understanding of animals' welfare requirements and how to fulfil them in a flexible way. It would also re-establish the links to the important supplementary information in "Part B" to the species-specific guidelines.

7.5 Annex IV is not prescriptive on air conditions for any species other than reptiles and amphibians, merely stating that temperature and humidity should be "adapted to species housed" and that "the air in the room shall be renewed at frequent intervals". Whilst these are sound principles, this approach leaves their application open to widely differing interpretations by Member States, which raises risk in an area critical to animal welfare. It is engineering tasks that are being legislated on here, and it seems appropriate to set engineering standards for them.

7.6 The current Annex IV does therefore leave scope for a lack of EU harmonisation if some Member States, such as the UK, continue to apply specified standards whilst others merely interpret principles. It seems unlikely that Member States with existing well-developed and explicit guidelines would wish to lower standards, whilst in others the likely increased financial burden associated with Annex IV could well be an incentive to adopting low-cost interpretations, to the detriment of harmonisation and animal welfare.

8. How satisfactory are the provisions on alternatives to animal testing and National Reference Laboratories (Art. 46)?

8.1 Both welfare groups and the animal user community welcome provisions to speed the development and implementation of alternative approaches that yield the same information, or equivalent information, as that obtained in procedures using animals. However, it is not clear how the Commission and Member States are to be encouraged to contribute to the development of such alternatives. Clearly the UK has taken a major step forward in the establishment of its National Centre for the 3Rs, which we believe is delivering meaningful benefits to animal welfare. Its structure and operation is a model envied by a number of countries, including the US. The NC3Rs does not have its own laboratories for the validation of alternative methods, but instead funds high-quality research in universities and industry and works with the scientific community to deliver alternatives in priority areas.

8.2 The establishment of National Reference Laboratories is a flawed concept. More needs to be done to develop and validate alternative methods, but a proliferation of national laboratories is counter productive. It is essential that a laboratory (or centre such as the NC3Rs) has sufficient expertise and infrastructure as well as adequate funding. It is also essential that research is coordinated and focused on areas of greatest need. A 'hub and spokes' approach is one way to achieve this, in which a number of satellite organisations could be linked in terms of their coordinated activities to meet agreed objectives.

8.3 The future of ECVAM and its advisory committee (ESAC) is unclear. Its role should be reviewed and its preoccupation with the validation of alternatives to regulatory toxicity testing should be reviewed. Currently, toxicity testing is responsible for approximately 15 % of animal use. There should be increased focus on developing alternatives to the other 85 %.

8.4 The role of the Commission in the development of alternatives is also unclear. Its formation a few years ago of the European Partnership for Alternative Approaches (EPAA) with DG Environment was a step forward. Unfortunately, it again focused on regulatory toxicity testing.

9. Is it appropriate to regulate at the EU level – as opposed to lower tiers of government – in all of the proposed areas? Is the legal base for the proposal adequate in light of the content of the Directive?

9.1 Regulation at the EU level could provide properly harmonised standards and a "level playing field" across all Member States, which would seem to be desirable. It is essential from an animal welfare and scientific aspect that the standards in the Directive are high. It is also important that Member States are able to implement higher standards than the Directive if they wish to do so.