Instructions for completion of annual Returns of Procedures in the UK

These instructions have been adapted from the EU Commission Implementing Decision of 14 November 2012.

They apply to Returns of Procedures completed in 2021.

The Excel form should be completed (one form for each project licence held during the year), saved using the project licence number as the filename in the format:

7001234 (i.e. replacing the ‘/’ in 70/1234 with a zero)

➢ and sent to the Home Office at: ROPReturns@homeoffice.gov.uk

Note: Procedures should be counted when they end, not when they begin.

Complete the preliminary questions on the establishment details tab.

Project details:

- Complete name of individual completing the return, name of project licence holder, establishment address and email address as per project licence. Provide a telephone number where you can be contacted if we need to seek further information on this Return.

- Complete the Establishment Licence number. This is shown on your project licence and can be obtained from the Home Office Liaison Contact or the Establishment Licence Holder. This should be in the ASPeL licence format: the licence number should be 9 characters long and start with an ‘X’.

- Complete project licence number. If you have an ASPeL project licence the licence number should be 9 characters long and start with a ‘P’. If you do not have an ASPeL licence, complete the licence number in the format 7001234 (i.e. replacing the ‘/’ in 70/1234 with a zero).

- The report year will already be completed. This return should contain details of all procedures completed during that year, regardless of when they started.
The following questions must be answered:

1. Were any procedures carried out and completed in the reported year?
   - If ‘No’ then there is no need to complete the rest of this form so please return the form to the Home Office as described above.
   - If ‘Yes’ then continue.

2. Were only ‘protected’ embryonic forms (i.e. of sufficient age to be regulated) used exclusively?
   This refers to mammalian embryos between two-thirds of gestation and term (prior to birth), avian and reptile eggs from two-thirds of incubation prior to hatching. Larvae prior to the free feeding stage are not regulated and as such should not be counted.
   - If ‘Yes’ only ‘protected’ embryonic forms, including eggs, were used (you did not use any postnatal forms), there is no need to complete the rest of this form.
   - If ‘No’ and later stages were used then continue to provide further details of those animals but do not provide further details of embryonic forms or eggs.
   - Note that embryonic forms of amphibian and larval forms of fish from the point when they become “protected animals”, i.e. from when they are capable of free feeding, should be reported. For zebra fish kept under conventional conditions this means from 5 days post fertilisation.

   However, captive bred animals of species listed in Annex A should not be returned as endangered species in the return of procedures.
   - If ‘Yes’ please provide details in the additional comments box.
   Note this does not refer to species listed in CITES appendix 2 (or Annex B).

4. Were neuromuscular blocking agents used in any procedures during the previous year?
➢ If ‘Yes’ please answer the next question. If general anaesthesia was not used throughout the entire period of neuromuscular blockade then please provide details in the additional comments box.

5. Rodenticide trials. Indicate if rodenticide trials were carried out under this project licence in the year relating to this return. There is no need to provide further details of those trials.

If you answered ‘Yes’ to question 1 above and ‘No’ to question 2 above please provide further details of procedures in the ‘Procedure details’ tab (this tab will only appear when both these criteria have been satisfied).

General

1. Data should be provided on each procedure, i.e. each use of an animal. If an animal has been used in more than one study or experiment, i.e. re-used, provide details on each use in a separate row.

2. Using the drop-down lists, choose one option for each column for each row. If necessary choose the ‘best fit’ from the drop down list options. If you select ‘Other’ please provide additional details in the appropriate column.

3. Do not count animals unless used on regulated procedures (these are procedures authorised on a project licence). Animals killed by Schedule 1 (or other PEL-permitted) methods of killing, for example, for tissue collection, are not counted unless they were genetically altered and bred under project licence authorities.

4. Surplus animals that are killed are not included, unless they have been produced under project licence authority, for example, genetically altered animals.

5. Mammals, birds and reptiles are only counted if they are born alive (including by caesarean section) or hatch.

6. Larval and embryonic forms are counted from when they become capable of free feeding. Zebra fish kept under conventional conditions should be counted from five days post-fertilisation. Medaka should be counted from when they hatch.

7. Cephalopods should be counted from the stage at which the animal becomes capable of independent feeding. This will be immediately post-hatching for octopus and squid, and from around seven days post-hatching for cuttlefish.

8. In the case of very small animals, an estimate of the total numbers used is acceptable.
9. In exceptional cases where a single study involving a large group of animals extends over two calendar years, and data collection is not complete until the end of the entire study (as opposed to at the time of death of each individual subject) it is acceptable to count all procedures in the year in which the last procedure ends, i.e. at the end of the study. This must be agreed with your Home Office Inspector in advance.

Data categories

Do not leave any relevant cells blank.

NB. Depending on previous entries, some cells will remain blank and will not allow information to be entered.

Use the drop down lists. Only enter free text in the ‘Specify other …’ columns if this is relevant.

A single row can be completed for any number of procedures if all the details are identical, for example:

- a single animal, one procedure;
- a single experiment, a number of procedures; or
- a group of studies, many procedures.

However, if the number is large (see ‘Column G - Number of procedures’ section below) for a single cell you may need to explain the reason in the ‘Comments 1’ field (Column X).

Column E - Animal species

- Select the species from the drop down list.

- All cephalopods, regardless of species, should be reported under the one heading ‘Cephalopod’.

Column F - Other species

- If you selected an ‘Other’ species in Column E then you must provide details of the actual species here, otherwise leave blank.

- You can provide this information by using the drop down list for Column F, which contains options of common “other” species. Please use this drop down list if contains the species you have used. If the species used does not appear on the list, then type the species into the cell in Column F.
Column G - Number of procedures

- This is the number of uses, i.e. the number of times animals were used in a particular experiment or study.

- If an animal has been used multiple times then the number of procedures is the number of times it was used.

**Example: PROCEDURE**

10 rats were used in a study involving administration of a drug then 7 separate blood samples and a final surgical intervention, before being killed by a Schedule 1 method.

Number of procedures = 10
Re-use = No

**Note:** If an animal is used on a long study, extending over more than one calendar year, it should not be counted until that procedure ends.

**Example: PROCEDURE OVER TWO CALENDER YEARS**

In November 2019, 10 rats were used in a study that ended when all of the rats were killed in March 2020.

Number of procedures reported in the 2019 return = 0
All will be returned in the 2020 return.

Large numbers of procedures

- If more than 99 non-human primates or 999 of any other species are entered in a single cell then you should add a note in the ‘Comments 1’ field (Column X).
  - If the large number applies to a single study then briefly explain why so many animals were used in the ‘Comments 1’ field (Column X).
  - If multiple studies have been combined into one entry, and this is the reason for the large number, simply state e.g. ‘Combination of studies’ in the ‘Comments 1’ field (Column X).
  - If a large number of animals used on the same breeding protocol has been entered on one line, simply state “Breeding” in the ‘Comments 1’ field (Column X).
**Column H - Re-use**

- Each animal should be reported at the end of each procedure for which it was used. Most animals are used only once, and ‘No’ should be entered in this column. If an animal has been used before (at any time, not just in the reported year) enter ‘Yes’ in this column.

- Re-use must have been authorised in the project licence.

**Example: RE-USE**

10 rats were cannulated and used in a study involving administration of a drug then 7 separate blood samples.
At the end of that study those same rats had a wash out period then were used again to test a separate drug. There was no need to use the same rats for the second study, therefore the second study constitutes “Re-use”

First Row:
Number of procedures = 10 and Re-use = No,
THEN IN A SECOND ROW
Number of procedures = 10 and Re-use = Yes (the place of birth for these re-use procedures is not completed).

**Example: RE-USE**

100 sheep were used to supply normal blood by being bled repeatedly at approximately monthly intervals.
90 had been used in previous years. 10 were bought in during this reporting year.
Each bleed constitutes a separate procedure, therefore all except the first bleed constitutes “re-use”.
Each sheep was bled 10 times, therefore the total number of procedures was 1000 and should be reported in 3 (or possibly 2) separate rows of data, as follows:

Row 1.
The previously used sheep.
Number of procedures = 900, Re-use = Yes and the place of birth column is not completed.

Row 2.
The new sheep, first bleed.
Number of procedures = 10, Re-use = No and the place of birth column is completed.

Row 3 (or added to Row 1)
The second and subsequent bleeds of the new sheep.
Number of procedures = 90, Re-use = Yes and the place of birth column is not completed.
Note: For the purpose of statistical reporting a single procedure, or use of an animal, extends from the time when the first technique was applied to the animal until the completion of data collection, observations or achievement of the particular purpose. In most cases this means a single protocol.

‘Continued use’, when a single experiment or study extends over more than one licence or protocol, and constitutes a single use; it is not re-use. In this case the end user should report the entire procedure, even if it began on another project licence, and the initiator of the study does not report such procedures.

Example: CONTINUED USE

10 rats were surgically prepared under Project Licence 7001234. This had actual severity of Moderate because it involved surgery.

These rats were then moved onto a different Project Licence 7005678 for use in a PK (pharmacokinetics) study. This part of the study has an actual severity of Mild.

PPL 7001234 does not report any of these rats.

PPL 7005678 reports all 10 rats when the PK study is completed, and the Actual Severity is reported as Moderate to take account of the severity of the entire procedure which started on a different licence (or protocol).

Note that any subsequent PK studies using the same rats, reported as “Re-use” should have Actual Severity of Mild (if this is what happened on the re-use)

Continued use includes when genetically altered animals are bred under one licence then transferred to a second licence (possibly at a different establishment) for the remainder of the study; the breeder would not report these animals, they would be returned under the end user’s project licence return.

If in any doubt as to which classification is correct consult your Home Office Inspector.

Column I - Place of birth: all species except non-human primates

- Provide details of the place of birth of all species other than non-human primates (this column is disabled if non-human primates are entered).
- However, only provide details for the first use of an animal. If animals have been re-used, this column is disabled.
• For Schedule 2 species\(^1\) NOT born at a licensed establishment or at a registered breeder, please provide an explanatory comment in the Comments 1 field (Column X). Schedule 2 species must be purpose bred, unless the Secretary of State has specifically authorised sourcing from elsewhere (e.g. wild caught animals).

**Note:** The *place of birth, not the source* of the animal, is required. A registered breeder can be any breeder within the EU who is registered under Article 20 of Directive 2010/63 EU. In the UK licensed establishments are registered breeders.

Animals born in your own establishment should be entered as “Animals born in the UK at a licensed establishment”.

• In the case of eggs of birds, reptiles, amphibia and fish the “place of birth” should be the place where the eggs hatched, if this is different from where the eggs were produced.

• In the case of mammals where source of embryos is different from where the embryos are implanted or animals are born, the place of birth is the place where they were born, not the source of the embryos.

• The ‘Rest of Europe’ means Council of Europe\(^2\) countries and Israel.

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**Example: PLACE OF BIRTH**

1. Transgenic mice bred in house and used in a study.
   Place of Birth “Animals born in the UK at a licensed establishment”

2. Transgenic mice bred at one university in the UK, licensed under Animals Scientific Procedures Act 1986 (ASPA), then moved to a different project licence at a second university for use in an experiment.
   The PPL holder at the first university who supplied the mice does not report them at all.
   The PPL holder who received and used the mice at the second university reports them all.

   If 50 mice were supplied but actually only 40 were used, with the remaining 10 culled as surplus, the return would be as follows:

   40 Mice, “Animals born in the UK at a licensed establishment” purpose as appropriate eg “Basic research; Immune system”

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\(^1\) Schedule 2 species are mice, rats, guinea pigs, hamsters, gerbils, rabbits, cats, dogs, ferrets, non-human primates, pigs (if genetically modified), sheep (if genetically modified), common quail (Coturnix coturnix), amphibians (of the species Xenopus laevis, Xenopus tropicalis, Rana temporaria and Rana ppienis), and zebrafish.

\(^2\) Council of Europe countries are Albania, Andorra, Armenia, Azerbaijan, Bosnia & Herzegovina, Georgia, Iceland, Liechtenstein, Macedonia, Moldova, Monaco, Montenegro, Norway, Russian Federation, San Marino, Serbia, Switzerland, Turkey and Ukraine.
10 mice “Animals born in the UK at a licensed establishment” purpose “Maintenance of established lines of GA animals”, because the only procedure the surplus 10 were subjected to was being born with a genetic alteration (even if this PPL does not authorise B&M).

3. Mice were bought from supplier, licensed under the EU Directive, in Germany. Place of birth “Animals born in the EU (non UK) at a registered breeder”

4. Mice were bought from supplier in the USA. Place of birth “Animals born in the rest of the world”

5. Cattle were sourced from a commercial dairy farm. Place of birth “Animals born in the UK but not at a licensed establishment”

6. Wild caught animals. Place of birth “Animals born in the UK but not at a licensed establishment”

Column J - Place of birth: Non-human primates only

- Additional detail is required for non-human primates (NHPs). This column is disabled for all other species.

- Only provide details of the place of birth for the first use of an NHP. If NHPs have been re-used, this column is disabled.

- The place of birth, not the source of the animal, is required.
  - Asia includes China.
  - America includes North, Central and South America.
  - Africa includes Mauritius.
  - ‘Elsewhere’ includes Australasia. Provide details of place of birth in the Comments1 column if this category is used.

- For non-human primates NOT born at a licensed establishment or at a registered breeder, please provide an explanatory comment in the Comments 1 field (Column X).

Column K - Non-human primate source colony status

- This column is required for non-human primates (NHPs). This column is disabled for all other species.

For new world primates (marmosets and tamarins) a self sustaining colony is a colony that does not contain any wild caught animals, is kept in a way that ensures animals are accustomed to humans and is sustained only using animals sourced from either within or from other self sustaining colonies.

For Macaques (and other old world primates) a self sustaining colony is a colony that no longer sources animals from the wild and is sustained only
using captive bred animals. In the case of old world primates however the colony may still contain some wild caught animals provided it is no longer sourcing animals from the wild.

Column L - Non-human primate generation

- This column is required for non-human primates (NHPs). This column is disabled for all other species.
- Only provide details of the generation for the first use of an NHP. If NHPs have been re-used, this column is disabled.
- Give the generation (maternal line) of each animal:
  - F0  Wild caught
  - F1  Progeny of wild caught females
  - F2 or greater  Progeny of captive bred females.

Column M - Genetic status

1: ‘Not genetically altered’: includes all wild-type animals, including inbred strains.
- This includes genetically normal parents of genetically altered offspring and genetically normal offspring.
- Triploid fish will generally be regarded as “Not genetically altered” unless induction of triploidy is specifically for a scientific purpose. If part of normal husbandry for the species (e.g. Salmonids) this should be reported as “Not genetically altered”.
- If “Not genetically altered” is reported in combination with the purpose “Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures” (Column O), please provide an explanatory comment in the Comments 1 field (Column X).
- Somatic genetic modification. For the purposes of the return of procedures, genetic alteration refers to germ line alteration. Animals with somatic genetic modification, such as by injection of viral vectors into tissues, should be returned as not genetically altered.

‘Genetically altered animals (GAAs)’: includes all genetically modified animals (transgenic, knock-out and other forms of genetic alteration) and mutations, whether naturally occurring or induced.

2: ‘GAAs without a harmful phenotype’: includes all GAAs that do not show an overtly harmful phenotype, or individuals of strains on which a formal welfare assessment has been carried out which showed the strain to have either no phenotype or a phenotype of sub-threshold severity.
This category can apply to any purpose given in Column O. It includes animals used for the creation of new strains, animals used in further procedures and animals used for maintenance of established colonies.

**Examples: GAA WITHOUT A HARMFUL PHENOTYPE**

- Green fluorescent protein (GFP) expressing lines of mice or fish.
- Cre expressing lines of mice.
- Conditional genetic alterations without induction of conditional gene expression (assuming it is induction of expression that leads to harm, there may be examples where the reverse is the case).
- Transgenic and knockout mice which appear overtly normal

**Also**

- Strains of mice prone to disease, e.g. tumour development but used or killed prior to the onset of tumour development.

3: Genetically altered animals with a harmful phenotype.

- ‘GAAs with a harmful phenotype’ includes all GAAs that actually exhibit an overtly harmful phenotype at some time during the procedure. This category can apply to any purpose given in Column O. It includes animals used for the creation of new strains, animals used in further procedures and animals used for maintenance of established colonies, but only if a harmful phenotype manifests.

- If the strain is known to have a harmful phenotype but some individuals do not exhibit that phenotype, then do not use this category for those individuals, use ‘Genetically altered animals without a harmful phenotype’.

**Example: GAA WITH A HARMFUL PHENOTYPE**

Immunocompromised mice, e.g. Nudes, SCID, Rag KO. Although all of this type of strain have potentially harmful phenotypes and must be reported as such, the actual severity is likely to be “Sub-threshold” (if not used in further experiments)

EXAMPLE: Nude mice bred but not used in further studies and culled as surplus.

All will be reported under “Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures” in Column O.

Heterozygous offspring
“Genetically altered without a harmful phenotype”, Actual severity “Sub-threshold”.

Homozygous Nude offspring:
Genetically altered with a harmful phenotype”, Actual severity “Sub-threshold”.
Wild type offspring. Not reported (unless genotyped by a regulated method, e.g. tail biopsy).

**Column N - Creation of a new genetically altered animal line**

- This category includes all animals involved in the creation of a novel line up to the point where a new line is considered ‘established’.

- This category includes the offspring from crossing of established lines of genetically altered animals; this is considered to lead to the creation of a new line. Crossing of a genetically altered animal with a wild type will not normally be considered to create a new line unless it is expected that the change of background will adversely affect the phenotype.

- Wild-type offspring that are not subjected to regulated procedures (for example, regulated genotyping methods) should not be reported.

- If “Yes” is used in this column, the purpose given in Column O **should not** be “Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures”. The purpose given in Column O should be the primary scientific purpose for which the new strain was being created.

- It **excludes** animals of established strains on which a formal welfare assessment has been carried out and excludes long-standing strains of GAAs even if no formal welfare assessment has been carried out. These are reported as “No” in Column N and as “Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures” in Column O.

- Rederivation and archiving of lines is reported in Column O as “Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures”.

**Note that from 2021 changes have been made to column P. Additional sub-purposes have been included.**

**Columns O and P - Purpose**

- Classification of purpose is divided into two columns.

- **Column O** for the high level purpose, e.g. “Basic research”, “Translational/Applied research”, “Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures”.

- **Column P** Sub-purpose applies to “Basic research”, “Translational/applied research” or “Regulatory use and routine production” only. The choices available in this column will be restricted
to those relevant to the high level purpose given in Column O. For example, if “Regulatory use and routine production” is entered in Column O then only the associated sub-categories will be available in Column P.

- If “Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures”, “Higher education”, “training for the acquisition, maintenance or improvement of vocational skills”, “Forensic enquiries”, “Protection of the natural environment in the interests of the health or welfare of human beings or animals” or “Preservation of species” is entered in Column O then the drop-down lists in Column P will be disabled and this column should be left blank.

- Choose the best fit for the purpose of the study. This will generally be the purpose given in the project licence. Please check that no other drop-down option is suitable before selecting “Other” as the sub-purpose.

1. **Basic research** includes studies of a fundamental nature, including physiology.

Studies that are designed to add knowledge about the normal and abnormal structure, functioning and behaviour of living organisms and the environment. These include fundamental studies in toxicology.

Investigation and analysis focused on a better or fuller understanding of a subject, phenomenon, or a basic law of nature instead of on a specific practical application of the results.

Any animals used for the creation of a new genetically altered animal (GAA) line (including the crossing of two established lines) intended to be used for the purposes of basic research should be recorded according to the purpose they are being created for and should be reported as ‘Yes’ in Column N ‘Creation of a new genetic line’.

Basic research categories:

i. ‘Oncology’. Any research studying oncology regardless of target system.

ii. ‘Nervous system’. Includes neuroscience, peripheral or central nervous system, psychology.

iii. ‘Sensory organs’ (skin, eyes, ears).

You should report studies on the nose under ‘Respiratory system’ and those on the tongue under ‘Gastrointestinal system including liver’.

iv. ‘Multisystemic’. Should only include research where the aim is to study multiple systems for example, some infectious diseases. However, if there is a primary target system, please report the primary target system as the sub-purpose. This category excludes oncology.
v. ‘Ethology/animal behaviour/animal biology’ category covers both animals in the wild and in captivity with the primary goal of learning more about that specific species.

vi. Dentistry should be reported under ‘dentistry’ not ‘musculoskeletal system’.

vii. ‘Other’. Research not related to an organ/system listed above or is not organ/system specific.

viii. Developmental Biology has been added to this list in 2021

Animals used for the production and maintenance of infectious agents, vectors and neoplasms or other biological material, and animals used for the production of antibodies, but excluding production of monoclonal antibodies by ascites method (which is covered under purpose “Regulatory use and routine production” and sub-purpose “Routine production …”), should be reported under “Basic research” or ‘Translational/applied research”. Where the purpose could be reported under the two categories you should only report the main purpose.

2. Translational/applied research includes discovery toxicology, investigations prior to formal regulatory studies and method development. It includes efficacy testing during the development of new medicinal products. It does not include studies required for regulatory submissions.

Any animals used for the creation of a new genetically altered animal line (including the crossing of two established lines) intended to be used for the purposes of translational and applied research should be recorded according to the purpose they are being created for and should be reported as ‘Yes’ in Column N ‘Creation of a new genetic line’.

Translational/applied research categories:

i. “Human cancer”. You should include any applied research studying human cancer, regardless of the target.

ii. “Human infectious disorders”. You should include any applied research studying human infectious disorders, regardless of the target.

iii. Any regulatory use of animals is to be excluded, such as regulatory carcinogenicity studies.

iv. You should report studies on disorders of the nose under “Human respiratory disorders” and those of the tongue under “Human gastrointestinal disorders including liver”.

v. Human dentistry should be reported under ‘human dentistry’ not ‘musculoskeletal system’.

vi. Renal disease should be reported under “Human urogenital/reproductive disorders”.

vii. “Diagnosis of diseases” includes animals used in direct diagnosis of diseases such as rabies, botulism, but excludes those covered under regulatory use.

viii. Non-regulatory toxicology’ covers discovery toxicology and investigations prior to formalising the regulatory studies and method development. This category does not include studies
required for regulatory submissions (preliminary studies, maximum tolerated dose).

ix. Animal welfare should include studies as per Article 5(b)(iii) of Directive 2010/63 EU i.e. “the welfare of animals and the improvement of the production conditions for animals reared for agricultural purposes”

x. Animal Nutrition has been added to this list in 2021

3. Protection of the natural environment in the interests of the health or welfare of human beings or animals

This includes studies aimed at investigating and understanding phenomena such as environmental pollution, loss of biodiversity and epidemiology studies in wild animals.

This excludes the regulatory use of animals used for ecotoxicology purposes.

4. Preservation of species. This includes research where the primary purpose is the preservation of a species.

5. Higher education in the tertiary educational setting,

6. Training for the acquisition, maintenance or improvement of vocational skills e.g. training in microsurgery, Modular training for PIL holders.

This includes training to acquire and maintain practical competence in techniques as required under Article 23(2) of Directive 2010/63 EU.

7. Forensic enquiries. This includes tests as part of forensic investigations and the production of materials, for example, antisera, for use in forensic investigations where this is not being carried out to meet a regulatory requirement.

8. Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures.

This includes the animals required for the maintenance of colonies of genetically altered animals (GAA); the intended purpose for which the line is being bred is not recorded (in contrast to “creation of new genetic lines”).

It includes genetically altered breeding stock and surplus animals unless killed for use of tissues post mortem, i.e. all of the GAA that are bred but not used for a further scientific purpose, whether regulated or not.

This category should be used for established or long-standing strains of GAA, i.e. those that have had a welfare assessment carried out, or those that are generating animals being used in experimental procedures. The latter can be considered effectively “established”. You should report the creation of new strains under the purpose for which they are being created.
Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures excludes:

- Genetically altered animals bred under project authorisation but killed using Schedule 1 listed methods whose tissues are then used for research: these should be reported under the purpose for which their tissues were used.
- Live animals that go on to be used in further regulated procedures.

**Examples: HOW TO RETURN BREEDING AND MAINTENANCE OF COLONIES OF ESTABLISHED LINES OF GAA (B&M)**

If the phenotype of offspring of a newly created line is not yet known, return under “Creation of new genetic line” (Column N) = Yes, then under appropriate purpose for which the new line was created, e.g. Basic Research (Column O) Oncology (Column P). **Do not record under Column O as B&M.**

If the line has been bred for more than 2 generations and its phenotype is known, further breeding should be reported under purpose as B&M. “Creation of new genetic line” = NO.

The line has no phenotype when heterozygous but homozygotes show paralysis from 6 months of age.

A heterozygous transgenic mouse is mated with a wild type mouse, and produces offspring:
- The transgenic parent is reported when it dies under: purpose B&M, genetic status “Genetically altered without a harmful phenotype” and actual severity “Sub-threshold”.
- The wild type parent is not reported.
- All heterozygous offspring’s (F1) genetic status are reported as “Genetically altered without a harmful phenotype” and their actual severity are reported as “Sub-threshold”.
- Wild type offspring are not reported.
- Occasional offspring have to have a second biopsy to confirm genotype. This cannot be considered identification and so must be included in the severity assessment. These will be reported as actual severity = “Mild”, reflecting the biopsy procedure, whether transgenic or wild type.

The next generation is bred by crossing 2 heterozygous offspring:
- Parents (F1) are returned under genetic status as “Genetically altered without a harmful phenotype”, under purpose as B&M and under actual severity as “Sub-threshold”, when they are eventually culled.
- Homozygous offspring (F2) culled at 3 months of age, before appearance of phenotype: are recorded under genetic status as “Genetically altered without a harmful phenotype” and under actual severity as “Sub-threshold”.
- Some of these were used for tissues following Schedule 1 killing, these should be reported under the purpose for which the tissues were used, not under B&M.
- Some offspring were kept and culled because they developed paralysis. If these mice were discarded and tissues not used return under: purpose B&M, genetic status “Genetically altered with a harmful phenotype” and actual severity “Severe.”
8. **Regulatory use and routine production** - Use of animals in procedures carried out with a view to satisfying legal requirements for producing, placing and maintaining products/substances on the market, including safety and risk assessment for food and feed. For all Regulatory use and routine production, please provide the legislation name(s) and number(s) in the Comments 1 field (Column X).

Regulatory use and routine production includes tests carried out on products/substances for which no regulatory submission is made i.e. tests performed on those products/substances (for which a regulatory submission was foreseen) that are ultimately deemed unsuitable for the market by the developer, and thus fail to reach the end of the development process.

This category also includes animals used in the manufacturing process of products *if that manufacturing process requires regulatory approval* (for example, animals used in the manufacturing of serum-based medicinal products should be included within this category). This includes quality assurance and potency testing of biologicals.

The efficacy testing during the development of new medicinal products is excluded and you should report this under “Translational/applied research”.

Regulatory use and routine production categories:

- **Routine production.** Legislative requirement not required.
  - **PR51** Routine production/blood-based products: Blood products including serum **but excluding polyclonal antisera** by established methods.
  - **PR52** Routine production of monoclonal antibodies by ascites method only: This covers the animals used to generate ascitic fluid only and applies to any purpose, not just for commercial production. It excludes immunisation of animals for hybridoma production, which should be captured under the appropriate category.
  - **PR54** Routine production of monoclonal and polyclonal antibodies (excluding ascites method). Note that in this context routine production means repeated production of the same reagent, akin to “manufacturing”, often for a commercial purpose. This includes immunisation of mice intended for hybridoma production or immunisation of animals to generate antisera for commercial purposes. A one of production of an antibody by immunising an animal to generate a novel reagent for use in eg. basic research would be returned under Basic Research, and not in this category for routine production even though it does use “routine” techniques.
  - Examples:
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- Immunisation of a rabbit to generate a novel antiserum for basic research in oncology. Return the rabbit under basic research on oncology.

- A commercial company commissioned to generate a novel antibody under its own project licence for a purpose (that may be regulated or not) eg, basic research in oncology. Return the immunised animals under basic research on oncology. Note that the purpose that the reagent is being supplied for may or may not be on the suppliers project licence.

- Generation of new stocks of an antibody used as a reagent in eg. diagnostic tests, using established methods. Return under PR54: Routine production of monoclonal and polyclonal antibodies (excluding ascites method).

- Collection of normal blood from a live animal to make plasma. If being done as a commercial service return under PR51 Routine production/blood-based products. If being done “in house” for eg basic research in oncology, return under Basic Research, Oncology.

- PR53 Other forms of production of biological material that use live animals.

- **Quality control (including batch safety and potency testing)**
  Quality control includes animals used in the testing of purity, stability, efficacy, potency and other quality control parameters of the final product and its constituents. It also includes any controls carried out during the manufacturing process for registration purposes, to satisfy any other national or international regulatory requirements or to satisfy the in-house policy of the manufacturer. This includes pyrogenicity testing.

  - PR61 (Quality control) Batch safety testing. Batch safety testing excludes pyrogenicity testing.
  - PR62 (Quality control) Pyrogenicity testing.
  - PR63 (Quality control) Batch potency testing.
  - PR64 (Quality control) Other quality controls.

- **PR71 (Regulatory use and routine production) Other efficacy and tolerance testing**
  Efficacy testing of biocides and pesticides is covered under this category as well as the tolerance testing of additives in animal nutrition.

  Combined tolerance/efficacy studies, dose range finding studies and maximum tolerated dose studies when being carried out to support regulatory submissions should be reported under this category.
• **Toxicity and other safety testing including pharmacology by test type** - Includes safety evaluation of products and devices for human medicine and dentistry and veterinary medicine. This covers studies carried out on any product or substance to determine its potential to cause any dangerous or undesirable effects in humans or animals as a result of its intended or abnormal use, as a result of its manufacture or as a potential or actual contaminant in the environment.

• Choose the most appropriate test description.

• Immunotoxicology studies should be reported under “Repeated dose toxicity”.

• Kinetics (pharmacokinetics, toxicokinetics, residue depletion): If toxicokinetics is performed as part of the regulatory repeat dose toxicity study, you should report it under ‘Repeated dose toxicity’.

• Safety testing in the food and feed area includes testing of drinking water (including target animal safety testing).

• Target animal safety: This is testing to ensure that a product for a specific animal can be used safely on that species (excluding batch safety testing, which is covered under “Quality control”).

• Combined end-points

**Column Q – Other purpose**

• If you have chosen any of the “Other” sub-purpose categories in Column P you should provide details in this column. Otherwise this column should be left this blank.

**Column R - Testing by legislation**

• Information should only be entered in this field if ‘[PR] Regulatory use and routine production’ was listed as the purpose in Column O; otherwise this field should be left blank.

• The legislative requirement should be entered as per the intended primary use. For example, in relation to water quality, if it is concerning tap water for drinking you should report it under “Food legislation”.

**Column S – Other testing by legislation**

• If you have entered “Other” in Column Q, provide details in this column. Otherwise this field should be left blank.

**Column T - Legislative requirements (origin of the legislation)**
• Information should only be entered in this field if ‘[PR] Regulatory use and routine production’ was listed as the purpose in Column O; otherwise this field should be left blank.

• This category allows identification of the level of harmonisation between different legislative requirements. The determining factor is not who requests the test to be carried out but which legislation is satisfied, giving priority to the widest level of harmonisation.

• Where national legislation is derived from EU legislation, only “Legislation satisfying EU requirements” should be chosen. “Legislation satisfying EU requirements” also includes any international requirement that at the same time satisfies EU requirements (such as testing to the guidelines of the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH), the International Cooperation on Harmonisation of Technical Requirements for Registration of Veterinary Medicinal Products (VICH), the Organisation for Economic Cooperation and Development (OECD), and European Pharmacopoeia monographs).

• “Legislation satisfying UK requirements only” is to be chosen only when the test is carried out to satisfy UK requirements and there is no equivalent requirement in the EU.

• “Legislation satisfying non-EU requirements only” is to be chosen when there is no equivalent requirement to carry out the test to satisfy EU requirements.

**Column U - Severity**

You should give the actual severity that animals used on the procedure experienced, not the severity classification or limit of the protocol.

Refer to the Home Office document “Advisory notes on recording and reporting the actual severity of regulated procedures” and the guidance for **Severity classification of genetically altered animals under the Animals (Scientific Procedures) Act 1986**:

Assign the severity to one of the categories:

- Sub-threshold;
- [SV2] Mild;
- [SV3] Moderate;
- [SV4] Severe; or
- [SV1] Non-recovery.

If different animals on a study suffered different levels of severity you should enter a separate line for each class of severity.
Sub-threshold severity is chosen when a procedure was regulated, and therefore it was considered that the procedure might have caused mild, moderate or severe suffering, but which in retrospect did not.

If “Sub-threshold” is reported in combination with an experimental study please provide an explanatory comment in the Comments 1 field (Column X). An experimental study is one where “No” was entered for “Creation of a new genetic line” (Column N) and a purpose (Column O) was entered other than “Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures”.

Whenever the severe classification is exceeded*, whether pre-authorised or not, you should report these animals and their use normally like any other use, and under the “Severe” category. You should add further details in the Comments 1 column (Column X) explaining:

- whether prior exemption was authorised;
- the details of the use; and
- the reasons why the severe classification was exceeded.

*This would be if an animal was suffering severe prolonged pain that was not alleviated.

If “Severe” is reported for over 999 procedures in combination with the purpose “Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures” (Column O), please provide an explanatory comment in the Comments 1 field (Column X).

If “Non-recovery” is reported in combination with either “Creation of a new genetic line” (Column N) or “Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures” (Column O), please provide an explanatory comment in the Comments 1 field (Column X).

**Reporting of wild animals used in procedures under ASPA.**

- Procedures should be reported and severity assessed at the end of a procedure; this poses challenges for work in the wild.

- The procedures should be reported in the best way practicable, following guidance given in separate documents on “Working with animals taken from the Wild” and reporting on actual Severity.

- Where possible animals should be reported when the procedure ends or the animal is known to have died. If this is not practicable then:
  1. At the end of the study when attempts to recapture are no longer made
  2. At the end of the relevant project licence when the work will not continue on another licence
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Last updated January 2021

- There will often be uncertainty as to the fate of animals in the wild. Refer to the above guidance and discuss this with your local inspector.

**Column W - Techniques of special interest**

- **Household product testing.** Choose this option only if the work involved safety testing of substances used in the household.

- **Use of ascites models for monoclonal antibody production.** Choose this option only if monoclonal antibodies were harvested from ascites fluid. Do not use this option for immunisation of animals to provide tissues to generate monoclonal antibodies *in vitro*.

- **Tobacco.** Choose this option only for the safety testing of products containing tobacco, not for use of nicotine or other compounds found in tobacco and not for use of tobacco in disease models.

- **Alcohol.** Choose this option only for the safety testing of products containing alcohol, not for the use of alcohol as a research tool or in disease models.

- **None.** Choose this option if no techniques of special interest (as listed above) apply.

**Column X - Comments 1: for the attention of the Home Office**

Use this column to add comments for the attention of the Home Office.

If more than 99 non-human primates or 999 of any other species are entered in a single cell then you should add a note in the ‘Comments 1’ field (Column X).

- If the large number applies to a single study then briefly explain why so many animals were used in the ‘Comments 1’ field (Column X).
- If multiple studies have been combined into one entry, and this is the reason for the large number, simply state e.g. ‘Combination of studies’ in the ‘Comments 1’ field (Column X).
- If a large number of animals used on the same breeding protocol has been entered on one line, simply state “Breeding” in the ‘Comments 1’ field (Column X).

For procedures reported as “Regulatory use and routine production” (Column O), please use this column to report the legislation name(s) and number(s).

In addition, please provide an explanatory comment when reporting any of the following:

- **Schedule 2 species** (Column E) NOT born at a licensed establishment or at a registered breeder (Column I/J).

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3 Schedule 2 species are mice, rats, guinea pigs, hamsters, gerbils, rabbits, cats, dogs, ferrets, non-human primates, pigs (if genetically modified), sheep (if genetically modified),
• “Not genetically altered” animals (Column M) reported in combination with the purpose “Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures” (Column O).
• “Sub-threshold” (Column U) is reported in combination with an experimental study. An experimental study is one where “No” was entered for “Creation of a new genetic line” (Column N) and a purpose (Column O) was entered other than “Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures”.
• “Severe” (Column U) reported for over 999 procedures in combination with the purpose “Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures” (Column O).
• “Non-recovery” (Column U) reported in combination with either “Creation of a new genetic line” (Column N) or “Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures” (Column O).

**Column Y - Comments 2: for personal use e.g. study numbers**

Use this column to add comments that are not relevant to the Home Office but are for your own reference/information only e.g. study reference numbers.

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common quail (Coturnix coturnix), amphibians (of the species Xenopus laevis, Xenopus tropicalis, Rana temporaria and Rana pipiens), and zebrafish.
Annex - Code lists

PLEASE NOTE: These lists are for information only. To ensure that the data you provide is correct, please select the options available to you in the drop-down lists in the data collection template. What appears in the drop-down lists, in some instances, will depend on what was selected in the preceding columns.

Animals Species (Column E)

[A1] Mice (Mus musculus)
[A2] Rats (Rattus norvegicus)
[A3] Guinea-Pigs (Cavia porcellus)
[A4] Hamsters (Syrian) (Mesocricetus auratus)
[A5] Hamsters (Chinese) (Cricetulus griseus)
[A6] Mongolian gerbil (Meriones unguiculatus)
[A7] Other Rodents (other Rodentia)
[A8] Rabbits (Oryctolagus cuniculus)
[A9] Cats (Felis catus)
[A10_1] Beagles (Canis lupus familiaris)
[A10_2] Other dogs (Other Canis)
[A11] Ferrets (Mustela putorius furo)
[A12] Other carnivores (other Carnivora)
[A13] Horses, donkeys & cross-breeds (Equidae)
[A14] Pigs (Sus scrofa domesticus)
[A15] Goats (Capra aegagrus hircus)
[A16] Sheep (Ovis aries)
[A17] Cattle (Bos primigenius)
[A18] Prosimians (Prosimia)
[A19] Marmoset and tamarins (eg. Callithrix jaccus)
[A20] Cynomolgus monkey (Macaca fascicularis)
[A21] Rhesus monkey (Macaca mulatta)
[A22] Vervets Chlorocebus spp. (usually either pygerythrus or sabaues)
[A23] Baboons (Papio spp.)
[A24] Squirrel monkey (eg. Saimiri sciureus)
[A25_1] Other species of Old World Monkeys (Cercopithecoidae)
[A25_2] Other species of New World Monkeys (Ceboidae)
[A26] Apes (Hominoidea)
[A27] Other Mammals (other Mammalia)
[A28] Domestic fowl (Gallus gallus domesticus)
[A29_1] Quail (Coturnix coturnix)
[A29_2] Other birds (other Aves)
[A30] Reptiles (Reptilia)
[A31] Rana (Rana temporaria and Rana pipiens)
[A32] Xenopus (Xenopus laevis and Xenopus tropicalis)
[A33] Other Amphibians (other Amphibia)
[A34] Zebra fish (Danio rerio)
[A35] Other Fish (other Pisces)
[A36] Cephalopods (Cephalopoda)

Specify other (Column F – also allows free text)

If column E is “[A7] Other rodents (other Rodentia)”: Cotton rat
Hamster - Djungarian hamster (Phodopus sungorus)
Hamster - Siberian hamster
Jird - Libyan jird
Mouse - Dormouse
Mouse - Four-striped grass mouse
Mouse - Grasshopper mouse
Mouse - Ryukyu mouse
Mouse - Wood mouse
Naked mole-rat
Squirrel - Grey squirrel
Squirrel - Red squirrel
Vole - Bank vole
Vole - Common vole
Vole - Field vole
Vole - Water vole

If column E is “[A10_2] Other dogs (Other Canis)”: Border Collie
Client owned dogs
Domestic dog breed
Jack Russel terrier
Labrador retriever
Petit Basset Griffon Vendeen
Yorkshire Terrier

If column E is “[A12] Other Carnivores (other Carnivora)”: European Badger (Meles meles)
Grey Seal (Halichoerus grypus)
Harbour (or Common) seal (Phoca vitulina)
Pine Marten (Martes martes)
Polecat (Mustela putorius)
Red fox (Vulpes vulpes)
Stoat (Mustela ermine)

If column E is “[A27] Other mammals (other Mammalia)”: Bat - Alcathoe’s bat (Myotis alcathoe)
Bat - Barbastelle bat (Barbastella barbastellus)
Bat - Bechstein’s bat (Myotis bechsteinii)
Bat – Brandts bat (Myotis brandtii)
Bat – Daubenton’s bat (Myotis daubentonii)
Bat - Horseshoe bat (Rhinolophus ferrumequinum)
Bat – Natterer’s bat (Myotis nattereri)
Bat – Whiskered bat (Myotis mystacinus)
Camelids – Aplaca (Vicugna pacos)
Camelids – Llama (Llama glama)
Deer – Red deer (Cervus elaphus)
Opossum (Didelphis Virginiana)
Wild boar (Sus scrofa)

If column E is “[A29_2] Other birds (other Aves)”:

Columbine – Diamond dove (Geopelia Cuneata)
Columbine – Dove (collard) – (Streptopelia decaocto)
Columbine – Pigeon (Columba livia)
Columbine – Stock dove (Columba oenas)
Columbine – Woodpigeon (Columba palumbus)
Cormorant – Cormorant (European Cormorant) – (Phalacrocorax aristotelis)
Corvid – Carrion crow (Corvus corone)
Corvid - Jackdaw (Corvus monedula)
Corvid – Rook (Corvus frugilegus)
Crane - White-naped crane (Grus vipio)
Duck - Baikal Teal (Sibirionetta formosa) - (Anas formosa)
Duck – Black-bellied whistling duck (Dendrocygna autumnalis)
Duck – Bufflehead (Bucephala albeola)
Duck – Canvasback (Aythya valisineria)
Duck - Commercial Domestic Duck
Duck – Common pochard (Aythya ferina)
Duck – Elder (European Elder) – (Somateria mollissima)
Duck – Eurasian wigeon (Anas Penelope)
Duck – Falcated duck (Anas falcata)
Duck – Ferruginous duck (Aythya nyroca)
Duck – Fulvous whistling duck (Dendrocygna bicolor)
Duck – Garganey (Anas querquedula)
Duck – Goldeneye (Common goldeneye) – (Bucephala clangula)
Duck – Greater scaup (Aythya marila)
Duck – Hooded Merganser (Lophodytes cucullatus)
Duck – Indian spot-billed duck (Anas poecilorhyncha)
Duck - Javan whistling duck (Dendrocygna javanica)
Duck – Laysan teal (Anas laysanensis)
Duck – Mallard (Anas platyrhynchos)

Duck – Mandarin duck (Aix galericulata)
Duck – Marbled duck (Marmaronetta angustirostris)
Duck – Northern pintail (Anas acuta)
Duck – Plumed whistling duck (Dendrocygna eytoni)
Duck – Puna teal (Anas puna)
Duck – Radjah shelduck (Tadorna radjah)
Duck – Red-billed teal (Anas erythrophthalmus)
Duck – red-crested pochard (Netta rufina)
Duck – Ringed teal (Callonetta leucophrys)
Duck – Silver Appleyard (domestic) – (Anas platyrhynchos)
Duck – Smew (Mergellus albellus)
Duck – South American comb duck (Sarkidiornis sylvicola)

Duck – Tufted duck (Aythya fuligula)
Duck – White-faced whistling duck (Oxyura leucocephala)
Duck – White-headed duck (Asarcornis scutulata)
Duck – White-winged wood duck (Asarcornis scutulata)
Duck – Wood duck (Aix sponsa)

Estrildid finch – Zebra finch (Taeniopygia guttata)
Fowl – Bobwhite quail (Colinus Virginianus)
Fowl – Chicken (Gallus gallus)
Fowl – Red junglefowl (Gallus gallus)
Fowl – Turkey (Common) – (Meleagris gallopavo)
Gamebird – Partridge (Perdix perdix)
Gamebird – Red-legged partridge (Alectoris rufa)
Goose – Barnacle Goose (Branta leucopsis)
Goose – Brent Goose (Branta bernicla)
Goose - Commercial Domestic Goose
Goose – Emperor goose (Chen canagica)
Goose – Hawaiian goose (Nene) – (Branta sandvicensis)
Goose – Lesser white-fronted goose (Anser erythropus)

Goose – Light-bellied brent goose (Branta bernicla hrota)
Goose – Magpie goose (Anseranas semipalmata)
Goose – Red-breasted goose (Branta ruficollis)

Long-tailed tits – Long-tailed tit (Aegithalos caudatus)
Lovebird – Fischer’s Lovebird (Agapornis fischeri)
Parakeet – Budgerigar (Melopsittacus undulatus)
Parrot – Cockatiel (Nymphicus hollandicus)
Passerine - Blackbird (Turdus Merula)
Passerine - Blue tit (Cyanistes caeruleus)
Passerine - Bullfinch (Pyrrhula pyrrhula)
Passerine – Chaffinch (Fringilla coelebs)
Passerine – Dipper (Cinclus cinclus)
Passerine – Dunnock (Prunella modularis)
Passerine – Goldfinch (Carduelis carduelis)
Passerine – Great tit (Parus major)
Passerine – Greenfinch (Chloris chloris)
Passerine – House Sparrow (Passer domesticus)
Passerine – Pied flycatcher (Ficedula hypoleuca)
Passerine – Robin (Erithacus rubecula)
Passerine – Starling (Common) – (Sturnus vulgaris)
Passerine - Tree Sparrow (Passer montanus)
Passerine -Yellowhammer (Emberiza citrinella)
Pheasant – Peafowl (Pavo crystallus)
Pheasant - Peafowl (Phasianus colchicus)
Quail – Quail (Japanese) – (Corturnix japonica)
Rail – Moorhen (Gallinula)
Raptor – Common Buzzard (Buteo buteo)
Raptor - Golden Eagle (Aquila chrysaetos)
Scrub-jay – Western scrub-jay (aphelocoma californica)
Seabird – Black-legged kittiwake (Rissa tridactyla)
Seabird – Guillemot (Common guillemot; common murre) – (Uria aalge)
Seabird – Herring gull (Larus argentatus)
Seabird – Northern fulmar (Fulmarus glacialis)
Seabird – Northern gannet (Morus bassanus)
Seabird – Puffin (Atlantic) – (Fratercula arctica)
Seabird – Razorbill (Alca torda)
Songbird – Canary (Serinus canaria)
Swan – Berwick Swan (Cygnus columbianus)
Swan – Black Swan (Cygnus atratus)
Swan - Mute Swan (Cygnus olor)
Turkey (Meleagris gallopavo)
Treecreeper - Wren (Troglodytes troglodytes)
Wader – Greenshank (Tringa nebularia)
Wader – Sandpiper (Wood sandpiper) – (Tringa glareola)
Wader – Sanderling (Common sandpiper) – (Actitis hypoleucus)
Warbler – Blackcap (Sylvia atricapilla)
Warbler – Chiffchaff (Phylloscopus collybita)
Warbler – Lesser whitethroat (Sylvia curryca)
Warbler – Whitethroat (Lophytes cucullatus)

If column E is “[A33] Other amphibian (other Amphibia)”: 

Axolotl – (Ambystoma mexicanum)
Frog – Red-legged Kassina (Kassina maculata)
Newt – Alpine newt (Lithobates alpestris)
Newt – Eastern newt (Notophthalmus viridescens)
Newt – Great crested newt (Triturus cristatus)
Newt – Smooth or Common newt (Lissotriton vulgaris)
Salamander – Eastern Tiger Salamander
(Ambystoma tigrinum)
Salamander – Sardinian Brook Salamander
(Euproctus platycephalus)

If column E is “[A35] Other fish (other Pisces)”: 

Barb (Cherry barb) – Puntius titteya
Barb (Gold barb) – Barbodes semifasciulatus
Barbel (Common barbel) – Barbus barbus
Basking shark – Cetorhinus maximus
Bass (Common Bass) – Dicentrarchus labrax
Bass (Sea bass; European bass; Common bass) –
Dicentrarchus labrax
Bleak (European subleak) – Leucaspis delineatus Heckel, 1843.
Bluegill sunfish (Brill) – Lepomis macrochirus
Brachyhypomus gauderio – Brachyhypomus gauderio
Bream (Silver bream; White bream) – Blicca bjoerkna; Abramis brama
Bronze cory catfish – Corydora aeneus
Carp (Common carp) – Cyprinus carpio
Catfish - African catfish (Clarias garipinus)
Chars
Chub (European chub) – Squalius cephalus
Cichlid – Cichlid
Cichlid – Haplochromis
Cichlid (Daffodi cichlid) – Neolamprologus pulcher
Clownfish – Amphiprioninae
Cod (Atlantic cod) – Gadus morhua
Dace (Common Dace) – Leuciscus leuciscus
Dogfish (Spiny dogfish) – Squalus acanthias
Eel (European Eel) – Anguilla Anguilla
Flounder (European flounder) – Platichthys flesus
Goldfish – Carassius auratus
Grayling Thermallus spp.
Gudgeon (Topmouth gudgeon); Stone moroko –
Pseudorasbora parva (Gobio gobio)
Guppy – Poecilia reticulata
Lamprey – Petromyzontiformes
Lamprey (European river lamprey) – Lampetra fluviatilis
Limia (Humpbacked or black-barred limia) Limia nigrafasciata
Lumpsucker – Cyclopteriidae
Mangrove killfish (Mangrove rivulus) – Kryptolebia marmoratus
Medaka – Oryzias latipes
Mexican tetra (Blind cave fish) – Astyanax mexicanus
Minnow (European or Common minnow) – Phoxinus
Minnow (Fathead minnow) – Pimephales promelas
Minnow (Sheepshead) minnow – Cyprinodon variegatus
Molly
Perch – Perca fluviatilis
Pike (Northern pike) – Esox lucius
Plaice (European plaice) – Pleuronectes platessa
Platy (Poecilidae)
Platyﬁsh (Southern platyﬁsh) – Xiphophorus maculates
Pumpkinseed – Lepomis gibbosus
Rays (Skates) – Raja clavata (Thornback)
Rays (Skates) – Raja Microocellata (Smalleyed ray)
Rays (Skates) – Raja montagui (Spotted ray)
Rays (Skates) – Raja undulata (Undulate ray)
Roach – Rutilus rutilus
Rudd – Scardinius erythrophthalmus
Salmon (Atlantic) – Salmo salar
Sea bass (spp. from families e.g. Serranidae, Moronidae)
Shark (Starry Smooth Hound) – Mustelus asterias
Skate (Common skate) – Dipturus intermedia
Smelt (European smelt) – Osmerus eperlanus
Sole – Solea solea
Splitfin (Redtail splitfin) - Xenotoca eiseni
Stickleback (Three-spined stickleback) – Gasterosteus aculeatus
Stone loach – Barbatula barbatula
Swordtail (Green swordtail) – Xiphophorus hellerii
Tench – Tinca tinca
Tilapia (Nile tilapia) – Oreochromis niloticus
Trout (Brown) – Salmo trutta
Trout (Rainbow trout) – Oncorhynchus mykiss
Turbot – Scophthalmus maximus
Twaiye shad (Alosa fallax)
Wrasse (Ballan wrasse) Labrus bergylta
Wrasse (Goldsinny wrasse) – Ctenolabrus rupestris

Place of birth (Column I)
[O1_1] Animals born in the UK at a licensed establishment
[O1_2] Animals born in the EU (non UK) at a registered breeder

Non-human Primate place of birth (Column J)
[NHPO1_1A] Animals born in the UK at a licensed establishment
[NHPO1_2A] Animals born in the EU (non UK) at a registered breeder
[NHPO1_1B] Animals born in the UK but NOT at a licensed establishment
[NHPO1_2B] Animals born in the EU (non UK) but NOT at a registered breeder
[NHPO2] Animals born in rest of Europe
[NHPO3] Animals born in Asia
[NHPO4] Animals born in America
[NHPO5] Animals born in Africa
[NHPO6] Animals born elsewhere

NHP source colony status (Column K)
Self-sustaining colony
Non self-sustaining colony

NHP Generation (Column L)
[NHPG1] F0
[NHPG2] F1
[NHPG3] F2 or greater

Genetic status (Column M)
[GS1] Not genetically altered
[GS2] Genetically altered without a harmful phenotype
[GS3] Genetically altered with a harmful phenotype

Purpose (Columns O and P)
[PB1] (Basic Research) Oncology
[PB2] (Basic Research) Cardiovascular Blood and Lymphatic System
[PB3] (Basic Research) Nervous System
[PB4] (Basic Research) Respiratory System
[PB5] (Basic Research) Gastrointestinal System including Liver
[PB6_1] (Basic Research) Musculoskeletal System
[PB6_2] (Basic Research) Dentistry
[PB7] (Basic Research) Immune System
[PB8] (Basic Research) Urogenital/Reproductive System
[PB9] (Basic Research) Sensory Organs (skin, eyes and ears)
[PB10] (Basic Research) Endocrine System/Metabolism
[PB14] (Basic Research) Developmental Biology

[PB11] (Basic Research) Multisystemic
[PB12] (Basic Research) Ethology / Animal Behaviour /Animal Biology
[PB13] (Basic Research) Other

[PT21] (Trans/Appl Research) Human Cancer
[PT22] (Trans/Appl Research) Human Infectious Disorders

[PT23] (Trans/Appl Research) Human Cardiovascular Disorders
[PT24] (Trans/Appl Research) Human Nervous and Mental Disorders
[PT25] (Trans/Appl Research) Human Respiratory Disorders

[PT26] (Trans/Appl Research) Human Gastrointestinal Disorders including Liver

[PT27_1] (Trans/Appl Research) Human Musculoskeletal Disorders
[PT27_2] (Trans/Appl Research) Human Dentistry
[PT28] (Trans/Appl Research) Human Immune Disorders

[PT29] (Trans/Appl Research) Human Urogenital/Reproductive Disorders
[PT30] (Trans/Appl Research) Human Sensory Organ Disorders (skin, eyes and ears)

[PT31] (Trans/Appl Research) Human Endocrine/Metabolism Disorders
[PT32] (Trans/Appl Research) Other Human Disorders

[PT33] (Trans/Appl Research) Animal Diseases and Disorders
[PT38] (Trans/Appl Research) Animal Nutrition
[PT34] (Trans/Appl Research) Animal Welfare

[PT35] (Trans/Appl Research) Diagnosis of diseases
[PT36] (Trans/Appl Research) Plant diseases
[PT37] (Trans/Appl Research) Non-regulatory toxicology and ecotoxicology

[PE40] Protection of the natural environment in the interests of the health or welfare of human beings or animals
[PS41] Preservation of species

[PE42] Higher education
[PE42a] Training for the acquisition, maintenance or improvement of vocational skills

[PF43] Forensic enquiries

[PG43] Breeding/maintenance of colonies of established genetically altered animals, not used in other procedures

[PR51] (Regulatory use/ Routine production) Blood based products

[PR52] (Regulatory use/ Routine production) Monoclonal antibodies by ascites method only
[PR54] (Regulatory use/ Routine production) Monoclonal and polyclonal antibodies (excluding ascites method)

[PR53] (Regulatory use/ Routine production) Other

[PR61] (Regulatory use/ Quality control) Batch safety testing
[PR62] (Regulatory use/ Quality control) Pyrogenicity testing

[PR63] (Regulatory use/ Quality control) Batch potency testing
[PR64] (Regulatory use/ Quality control) Other quality controls

[PR71] (Regulatory use) Other efficacy and tolerance testing

[PR81] (Regulatory use/Toxicity and../Acute and sub-acute) LD50, LC50
[PR82] (Regulatory use/Toxicity and../Acute and sub-acute) Other lethal methods

[PR83] (Regulatory use/Toxicity and../Acute and sub-acute) Non lethal methods

[PR84] (Regulatory use/Toxicity and..) Skin irritation/corrosion
[PR85] (Regulatory use/Toxicity and..) Skin sensitisation

[PR86] (Regulatory use/Toxicity and..) Eye irritation/corrosion

[PR87] (Regulatory use/Toxicity and../Repeated dose toxicity) up to 28 days
[PR88] (Regulatory use/Toxicity and../Repeated dose toxicity) 29 - 90 days

[PR89] (Regulatory use/Toxicity and../Repeated dose toxicity) > 90 days

[PR90] (Regulatory use/Toxicity and..) Carcinogenicity

[PR91] (Regulatory use/Toxicity and..) Genotoxicity

[PR92] (Regulatory use/Toxicity and..) Reproductive toxicity

[PR93] (Regulatory use/Toxicity and..) Developmental toxicity

[PR94] (Regulatory use/Toxicity and..) Neurotoxicity

[PR95] (Regulatory use/Toxicity and..) Kinetics

[PR96] (Regulatory use/Toxicity and..) Pharmacodynamics (incl safety pharmacology)

[PR97] (Regulatory use/Toxicity and..) Phototoxicity

[PR98] (Regulatory use/Toxicity and../Ecotoxicity) Acute toxicity

[PR99] (Regulatory use/Toxicity and../Ecotoxicity) Chronic toxicity
[PR100] (Regulatory use/Toxicity and..Ecotoxicity) Reproductive toxicity
[PR101] (Regulatory use/Toxicity and..Ecotoxicity) Endocrine activity
[PR102] (Regulatory use/Toxicity and..Ecotoxicity) Bioaccumulation
[PR103] (Regulatory use/Toxicity and..Ecotoxicity) Other
[PR104] (Regulatory use/Toxicity and..) Safety testing in food and feed area
[PR105] (Regulatory use/Toxicity and..) Target animal safety
[PR107] (Regulatory use/Toxicity and..) Combined end-points
[PR106] (Regulatory use/Toxicity and..) Other

Testing by legislation (Column R)
[LT1] Legislation on medicinal products for human use
[LT2] Legislation on medicinal products for veterinary use and their residues
[LT3] Medical devices legislation
[LT4] Industrial chemicals legislation
[LT5] Plant protection product legislation
[LT6] Biocides legislation
[LT7] Food legislation including food contact material
[LT8] Feed legislation including legislation for the safety of target animals, workers and environment
[LT9] Cosmetics legislation
[LT10] Other

Legislative requirements (Column T)
[LO1] Legislation satisfying EU requirements
[LO2] Legislation satisfying UK requirements only
[LO3] Legislation satisfying Non-EU requirements only

Actual severity (Column U)
Sub-threshold
[SV1] Non-recovery
[SV2] Mild
[SV3] Moderate
[SV4] Severe

Techniques of Special Interest (Column W)
None
Household product testing
Use of ascites models for monoclonal antibody production
Tobacco
Alcohol