Department of Health
An Roinn Sláinte
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Statistics of Scientific Procedures on Living Animals Northern Ireland 2025

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Prepared pursuant to section 21(7) of the Animals (Scientific Procedures) Act 1986 as adapted by section 29 of that Act

THE STATIONERY OFFICE

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Introductory Notes

Animals (Scientific Procedures) Act 1986 and key definitions

In the UK the use of animals in scientific procedures is regulated by the Animals (Scientific Procedures) Act 1986, an animal protection measure that requires licensing and oversight of all places, projects and personnel involved in such work. The general system of control under the 1986 Act is explained in detail in the Appendix.

The purpose of this publication is to meet the requirements of the 1986 Act to collect and publish statistical information on the use of protected animals in regulated procedures during the previous calendar year and to lay that information before the Northern Ireland Assembly.

Protected animals are defined in the 1986 Act as any living vertebrate other than man and any living cephalopod. Regulated procedures are defined in the 1986 Act as any procedure applied to a protected animal for an experimental or other scientific purpose, or for an educational purpose, that may have the effect of causing an animal pain, suffering, distress or lasting harm equivalent to, or higher than, that caused by the introduction of a needle in accordance with good veterinary practice. As the 1986 Act indicates, the breeding of an animal is a regulated procedure if the animal is bred from, or is the descendant of, an animal whose genes have mutated or been modified. For simplicity, these procedures will be referred to from this point on as the creation/breeding of genetically altered animals.

The number of regulated procedures, which will be simply referred to as procedures from this point on, usually corresponds with the number of animals used. However, animals are sometimes ‘re-used’ when they have fully recovered from a previous procedure and in these instances, they are counted as separate, additional, procedures. Overall, the number of procedures is always slightly higher than the number of animals used. The figures in this release focus on the number of procedures, not the number of animals, unless otherwise stated.

The figures presented in this report relate to the number of scientific procedures on animals between 1 January and 31 December 2025.

Further information available

This statistical release is available online at the DoH website https://www.health-ni.gov.uk/

The Animals (Scientific Procedures) Act 1986 can be accessed at https://www.gov.uk/government/publications/consolidated-version-of-aspa-1986

Description of Statistical Tables

1. Project holders were asked to answer detailed questions about the procedures completed in 2025. A description of the information gathered is set out below.

Species of Animal

2. The majority of the tables refer to experimental procedures with the exception of Tables 1a and 2, which refer to animals used for the first time, and Tables 8 to 10, which refer to genetically altered animals created/bred in 2025 but not used in further experimental procedures.

3. The list of species or categories of animals is selective to avoid undue complications; where collective terms are used it is because previous experience suggests that the category will contain a relatively small number or because further breakdown is of little interest. In several tables, rows which contain only zero have been omitted for ease of reading relevant information and if an animal is not mentioned then it is because the rows pertaining to that species are completely blank.

Genetic Status of Animal

4. For genetically altered animals, separate breakdowns on genetically modified animals and animals with a harmful genetic mutation are no longer collected. Instead, separate breakdowns are now collected on animals which show a harmful phenotype (i.e. a harmful physical or biochemical defect) and animals which do not show a harmful phenotype.

5. Since 2014, genetic status is shown separately for experimental procedures (Table 4) and those involving the creation/breeding of genetically altered animals that were not used in further experimental procedures (Tables 8 to 10).

Primary Purpose

6. Use of animals for regulated procedures is limited by Section 5 (3) of the Act to one of the following primary purposes:

    a. **basic research;**

    b. **translational or applied research** with one of the following aims—

        i. the avoidance, prevention, diagnosis or treatment of disease, ill-health or other abnormality, or their effects, in man, animals or plants;

        ii. the assessment, detection, regulation or modification of physiological conditions in man, animals or plants; or

        iii. the improvement of the welfare of animals or of the production conditions for animals reared for agricultural purposes.

    c. the **development, manufacture or testing** of the quality, effectiveness and safety of drugs, foodstuffs and feedstuffs or any other substances or products, with one of the aims mentioned in paragraph (b);

    d. **protection of the natural environment**: research in the interests of the health or welfare of man or animals;

    e. **preservation of species**: research aimed at preserving the species of animal subjected to regulated procedures as part of the programme of work;

f. **higher education or training** for the acquisition, maintenance or improvement of vocational skills;

g. **forensic inquiries**: including tests as part of forensic investigations and the production of materials, for example, antisera, for use in forensic investigations.

Place of Birth (Table 2)

7. The Animals (Scientific Procedures) Act 1986 requires, unless a specific exemption is granted, that certain animals listed in Schedule 2 to the Act must be bred specifically for use in regulated procedure. The species so listed are mouse, rat, guinea-pig, hamster, rabbit, dog, cat, primate, quail, ferret, gerbil, certain species of frogs (Xenopus laevis, Xenopus tropicalis, Rana temporaria or Rana pipiens) zebrafish and if genetically modified, pigs and sheep.

8. Information is collected on place of birth. Statistics relate to animals used for the first time rather than on the number of procedures. The place of birth of these animals is tabulated according to whether it is within the UK, within the EU, or elsewhere.

Stage of Development

9. Whether procedures were only carried out on immature forms was determined but not enumerated because it is impracticable in some cases to count such procedures, e.g. a foetus resorbed during gestation, or fish fry which are very small and fast-moving.

Severity (Tables 3 & Tables 8-10)

10. Details of actual severity are recorded for all procedures.

11. The actual severity of procedural harms experienced by the animals (i.e. excluding harms caused to animals as a result of non-procedural events such as transport and housing) is assessed as one of five categories as follows.

- Sub-threshold: When a procedure was authorised under a project licence but did not actually cause suffering above the threshold of regulation (ASPA 2 (1)) i.e. was less than the level of pain, suffering, distress or lasting harm that is caused by inserting a hypodermic needle according to good veterinary practice.
- Non-recovery (under general anaesthesia): When the entire procedure was carried out under general anaesthesia without recovery.
- Mild: The key characteristic of mild procedures is that any pain or suffering experienced by an animal is, at worst, only slight or transitory and minor so that the animal returns to its normal state within a short period of time.
- Moderate: The characteristic of moderate procedures is that they do cause a significant and easily detectable disturbance to an animal's normal state, but this is not life threatening. Most surgical procedures carried out under general anaesthesia and with good post-operative analgesia (i.e. pain relief) would be classed as Moderate.
- Severe: The characteristics of severe procedures are that they cause a major departure from the animal's usual state of health and well-being. It would usually include long-term disease processes where assistance with normal activities such as feeding and drinking are required or where significant deficits in behaviours/activities persist. It includes animals found dead unless an informed decision can be made that the animal did not suffer severely prior to death.

12. The severity of genetically altered animals is assessed from:

    - the phenotype of the animals, e.g. development of congenital disease (i.e. diseases present at birth) or tumours;
    - in the case of animals that have no harmful phenotype but that have been biopsied for genotyping using an invasive method which is not used for identification of the animal, the biopsy procedures will generally be assessed as mild;
    - the animals assessed as severe in this category are expected to be largely animals within breeding colonies that were found dead and where the death of the animal was either a result of its phenotype or, more commonly, unexplained (all animals found dead are reported as severe unless an informed decision can be made that the animal did not suffer severely prior to death);
    - a small number of the animals used to create new lines of genetically altered animals will have been subjected to surgical or minor procedures such as the injection of drugs or viral vectors (i.e. viruses containing the genes of interest).

13. Full details of severity assessment and classification can be found in Appendix G Guidance_on_the_Operation_of_ASPA.pdf (publishing.service.gov.uk), https://www.health-ni.gov.uk/publications/aspa-actual-severity-reporting and at https://www.health-ni.gov.uk/publications/aspa-severity-classification-genetically-altered-animals.

Type of Procedure

14. Table 5 provides a breakdown of all experimental procedures undertaken for the primary purpose of basic research, by area of study. These are:

    - Oncology
    - Cardiovascular blood and lymphatic system
    - Nervous system
    - Respiratory system
    - Gastrointestinal system - including liver
    - Musculoskeletal system
    - Immune system
    - Urogenital/reproductive system
    - Sensory organs (skin, eyes and ears)
    - Endocrine system/metabolism
    - Multisystemic
    - Ethology/animal behaviour/animal biology
    - Other

15. Table 6 provides a breakdown of experimental procedures undertaken for the primary purpose of translational/applied research by area of study. These are:

    - Human cancer
    - Human infectious disorders
    - Human cardiovascular disorders
    - Human nervous and mental disorders
    - Human respiratory disorders
    - Human gastrointestinal disorders including liver
    - Human musculoskeletal disorders
    - Human immune disorders
    - Human urogenital/reproductive disorders

- Human sensory disorders (skin, eyes and ears)
- Human endocrine system/metabolism disorders
- Other human disorders
- Animal diseases and disorders
- Animal welfare/nutrition
- Diagnosis of diseases
- Plant diseases
- Non-regulatory toxicology and ecotoxicology

16. Table 7.1 provides a breakdown of experimental procedures undertaken for regulatory purposes. These fall into four categories:

    - Routine production of blood-based products, monoclonal antibodies (by ascites method) or other products;
    - Quality control;
    - Other efficacy and tolerance testing;
    - Toxicity and other safety testing including pharmacology.

17. Table 7.4 provides a further breakdown on toxicity and other safety testing, by the various testing methods used.

Legislative requirements (Tables 7.2 and 7.3)

18. Table 7.2 provides a breakdown of all regulatory procedures by type of legislative requirement. Table 7.3 documents the origin of the requirement (UK and/or EU or Non-EU Legislation). The following are examples of legislative requirements which may be included:

    - Legislation on medicinal products for human use;
    - Legislation on medicinal products for veterinary use and their residues;
    - Workplace safety - e.g. Health and Safety at Work (Northern Ireland) Order 1978, COSHH Regulations;
    - Substances used in agriculture - e.g. Control of Pesticides Regulations (Northern Ireland) 1987; EU Pesticides Directives;
    - Substances used in foodstuffs - e.g. The Food Safety (Northern Ireland) Order 1991.

Creation/breeding of genetically altered animals (Tables 1, 8-10)

19. The creation/breeding of genetically altered animals includes the use of animals for the creation of new lines of genetically altered animals and the breeding of established lines of genetically altered animals that were not used in further regulated procedures. This category also includes some animals which were bred with the intention of producing genetically altered animals but resulted in non-genetically altered animals being born.

Projects, project licence holders and licensed establishments (Table 11)

20. Project licence holders have been classified according to the type of designated place which was their main place of employment at the end of the year, although they could be licensed to carry out procedures at more than one place. Procedures have been classified according to the type of designated place of the project licence holder reporting them.

Commentary

The main features of the statistics for 2025 were:

a. The number of procedures completed was 20,058. Of these, 4,768 (23.8%) related to the creation/breeding of genetically altered animals that were not used in further procedures and the remaining 15,290 (76.2%) were experimental procedures (Table 1). This compares with previous years as follows: 21,113 procedures in 2024; 25,345 in 2023; 28,600 in 2022; 29,221 in 2021

b. The number of animals used for the first time in procedures was 19,706 (Table 1A) in comparison to 20,746 in 2024. The total figure includes animals used for the first time in experimental procedures (Column I Table 1A – 14,938) and creation and breeding of GA animals not used in experimental procedures (Column J/K/L Table 1A – 4,768).

c. Of the 15,290 experimental procedures completed in 2025, the majority involved mice (69.7% or 10,664). Domestic fowl accounted for approximately 12.3% of the total experimental procedures (1,888 procedures). Fish (other than Zebrafish) accounted for approximately 4.7% of the total experimental procedures (719 procedures). Sheep accounted for approximately 1.5% of the total experimental procedures (227 procedures). Rats accounted for 5.6% of total experimental procedures (861 procedures). The remaining procedures were carried out on other mammals. This species distribution is broadly in line with previous years, although annual variations can be seen. Reasons for this are unclear. (Table 1).

d. In 2025, 14,938 animals were used for the first time in experimental procedures and of these 86.9% were born at establishments within the UK (12,975 animals). 12.1% of animals used were born in the EU (1,801 animals), with the remaining 1.1% born elsewhere in the world (162 animals) (Table 2). A lower proportion of animals were supplied from the EU in 2025 (12.1%) compared to 2024 (16.9%). The origin of rodents (especially if genetically altered) is determined to some extent by large commercial breeders which may decide to consolidate stocks in a particular country outside the UK. It may not be within the control of users to source from the UK (Table 2).

e. The majority of experimental procedures completed in 2025 used animals that had not been genetically modified (67.5% or 10,323 procedures). 19.1% (2,922 procedures) involved genetically modified animals without a harmful phenotype, i.e. without a harmful physical or biochemical defect and 13.4% (2,045 procedures) involved genetically modified animals with a harmful phenotype (Table 4).

f. Of the severity assessments undertaken for the 15,290 experimental procedures completed in 2025: 3.2% were assessed as sub-threshold; 39.8% were assessed as mild; 53.6% were assessed as moderate; 2.9% were assessed as severe and 0.5% were assessed as non-recovery (Table 3).

g. Of the 20,058 total procedures carried out in 2025: the majority, 31.8% (6,375) were undertaken for translational/applied research; 31.2% (6,261) were undertaken for basic research; 11.9% (2,392) related to protection of the natural environment; 1.2% (248) were undertaken for regulatory purposes and 0.1% (14) related to preservation of species (Table 1).

h. In 2025, 6,261 procedures were undertaken for basic research purposes. Of these, the majority, 94.8% (5,936 procedures) were undertaken for the study of oncology and specified or multi-organ systems, 5% (316 procedures) were undertaken for the study of animal biology (including ethology/animal behaviour) and 0.1% (9 procedures) were for other studies (Table 5).

i. In 2025, 6,375 procedures were undertaken for translational/applied research purposes. Of those, 90.5% (5,772 procedures) were undertaken for research relating to human cancer and other disorders. Procedures relating to animal welfare/nutrition amounted to 4.6% (291 procedures). Procedures relating to research into animal diseases amounted to 2.0% (127 procedures). (Table 6).

j. In 2025, 248 experimental procedures were undertaken for regulatory purposes. The majority of these, 69.8% (173 procedures) were for toxicity and other safety testing, including pharmacology. The remainder were in other efficacy and tolerance testing, 19.8% (49 procedures) and other quality controls 10.5% (26 procedures) (Table 7.1).

k. Of the 248 experimental procedures undertaken for regulatory purposes, most were carried out to satisfy legislation on medicinal products for veterinary use (and their residues) 99.2% or 246 procedures. The remaining procedures were for food legislation, including legislation on food contact material 0.8% (2 procedures) (Table 7.2). All legislation was to satisfy EU requirements (Table 7.3).

l. Of the 5,518 procedures which related to the creation and breeding of genetically altered animals (not used in experimental procedures) (Table 8), ¬86.4% (4,768 procedures) were for the maintenance of established lines of genetically altered animals (Table 10) and 13.6% (750 procedures) were for the purpose of creating new lines of genetically altered animals for use in basic research (Table 9.2).

m. Most procedures undertaken in 2025, (11,859 or 59.1%) were carried out in universities/ medical schools. Commercial organisations accounted for 4,881 of the total procedures (24.3%), and Non-profit making organisations, 3,318 procedures (16.5%) (Table 11).

Number of project licences where countable procedures were completed, by type of licensed establishment

Type of licensed establishment	2020	2021	2022	2023	2024	2025
Public health laboratories	0	0	0	0	0	0
Universities/medical schools	37	38	30	35	36	36
Government departments	0	0	0	0	0	0
Other public bodies	0	0	0	0	0	0
Non-profit-making organisations	16	19	17	13	15	13
Commercial organisations	12	10	14	6	7	11
Total	**63**	**67**	**61**	**54**	**58**	**60**

n. Returns were completed in respect of all 81 project licences for which returns were required in 2025 (4 fewer than in 2024). Of these, 60 licences reported having carried out countable procedures in 2025 (Table 11).

o. During 2025, the number of personal licences which were operational and authorised to carry out regulated procedures under the act was 458 (Table 13). The number of personal licences has varied over the last 5 years as shown in the graph below.

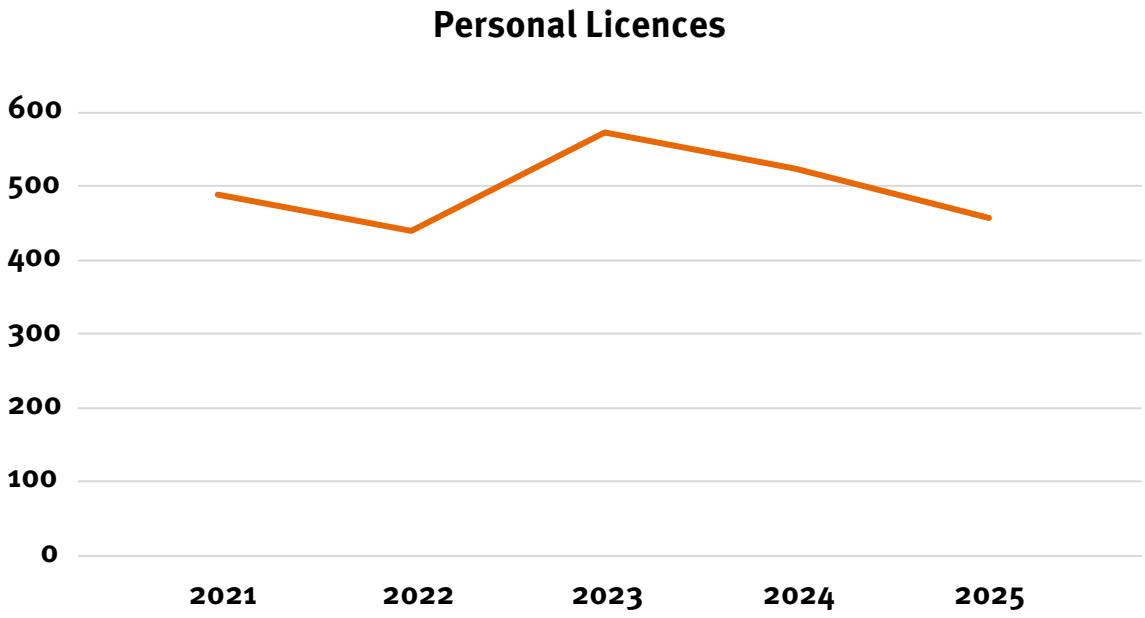


Table 1 Number of procedures by species of animal and purpose of the procedure

Northern Ireland 2025

Species of animal	*Experimental purpose of procedure (excluding creation & breeding)*								Creation & breeding of GA animals not used in experimental procedures	Total Procedures	% of total procedures
	Basic Research	Translational/ Applied research	Protection of the natural environment	Preservation of species	Higher education or training	Forensic enquiries	Regulatory	Total experimental procedures			
Mammal											
Mouse *(Mus musculus)*	5,505	5,159	0	0	0	0	0	10,664	4,768	**15,432**	**76.9**
Rat *(Rattus norvegicus)*	266	595	0	0	0	0	0	861	0	**861**	**4.3**
Guinea-pig *(Cavia porcellus)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Hamster (Syrian) (*Mesocricetus auratus*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Hamster (Chinese) (*Cricetulus griseus*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Gerbil *(Unguiculatus)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other rodent (other *Rodentia)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Rabbit *(Oryctolagus cuniculus)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Cat *(Felis catus)*	0	0	0	0	0	0	57	57	0	**57**	**0.3**
Beagle *(Canis lupus familiaris)*	0	0	0	0	0	0	94	94	0	**94**	**0.5**
Other dog (other *Canis*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Ferret *(Mustela putorius furo)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other carnivore (other *Carnivora*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Horse and other equid *(Equidae)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Pig *(Sus scrofa domesticus)*	0	309	0	0	0	0	0	309	0	**309**	**1.5**
Minipig (*Sus scrofa*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Goat *(Capra aegagrus hircus)*	0	0	0	0	0	0	28	28	0	**28**	**0.1**
Sheep *(Ovis aries)*	40	185	0	0	0	0	2	227	0	**227**	**1.1**
Cattle *(Bos primigenius)*	249	127	0	0	0	0	67	443	0	**443**	**2.2**
Primate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other mammal (other *Mammalia*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Bird											
Domestic fowl (*Gallus domesticus*)	0	0	1,888	0	0	0	0	1,888	0	**1,888**	**9.4**
Quail *(Coturnix coturnix)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other bird (other *Aves*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
											0.0
Reptile *(Reptilia)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Amphibian											
Rana *(temporaria and pipiens)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Xenopus *(laevis and tropicalis)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other amphibian (other *Amphibia)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Fish											
Zebrafish *(Danio rerio)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other fish (other *Pisces*)	201	0	504	14	0	0	0	719	0	**719**	**3.6**
Cephalopod *(Cephalopoda)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Total	**6,261**	**6,375**	**2,392**	**14**	**0**	**0**	**248**	**15,290**	**4,768**	**20,058**	**100.0**
% of total	**31.2**	**31.8**	**11.9**	**0.1**	**0.0**	**0.0**	**1.2**	**76.2**	**23.8**	**100.0**	

Table 1a Number of animals used for the first time in procedures by species of animal and purpose of the procedure

Northern Ireland 2025

Species of animal	Experimental purpose of procedure (excluding creation & breeding)								Creation & breeding of GA animals not used in experimental procedures	Total animals used for the first time in procedures	% of total animals used for the first time in procedures
	Basic Research	Translational/ Applied research	Protection of the natural environment	Preservation of species	Higher education or training	Forensic enquiries	Regulatory	Total animals used for the first time in experimental procedures			
Mammal											
Mouse *(Mus musculus)*	5,505	5,159	0	0	0	0	0	10,664	4,768	**15,432**	**78.3**
Rat *(Rattus norvegicus)*	266	595	0	0	0	0	0	861	0	**861**	**4.4**
Guinea-pig *(Cavia porcellus)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Hamster (Syrian) (*Mesocricetus auratus*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Hamster (Chinese) (*Cricetulus griseus*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Gerbil (*Unguiculatus*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other rodent (other *Rodentia*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Rabbit *(Oryctolagus cuniculus)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Cat *(Felis catus)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Beagle *(Canis lupus familiaris)*	0	0	0	0	0	0	6	6	0	**6**	**0.0**
Other dog (other *Canis*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Ferret *(Mustela putorius furo)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other carnivore (other *Carnivora*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Horse and other equid *(Equidae)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Pig *(Sus scrofa domesticus)*	0	297	0	0	0	0	0	297	0	**297**	**1.5**
Minipig (*Sus scrofa*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Goat *(Capra aegagrus hircus)*	0	0	0	0	0	0	28	28	0	**28**	**0.1**
Sheep *(Ovis aries)*	40	185	0	0	0	0	2	227	0	**227**	**1.2**
Cattle *(Bos primigenius)*	167	14	0	0	0	0	67	248	0	**248**	**1.3**
Primate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other mammal (other *Mammalia*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Bird											
Domestic fowl (*Gallus domesticus*)	0	0	1,888	0	0	0	0	1,888	0	**1,888**	**9.6**
Quail *(Coturnix coturnix)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other bird (other *Aves*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Reptile *(Reptilia)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Amphibian											
Rana *(temporaria and pipiens)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Xenopus *(laevis and tropicalis)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other amphibian (other *Amphibia*)	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Fish											
Zebrafish *(Danio rerio)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other fish (other *Pisces*)	201	0	504	14	0	0	0	719	0	**719**	**3.6**
Cephalopod *(Cephalopoda)*	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Total	**6,179**	**6,250**	**2,392**	**14**	**0**	**0**	**103**	**14,938**	**4,768**	**19,706**	**100.0**
% of total	**31.4**	**31.7**	**12.1**	**0.1**	**0.0**	**0.0**	**0.5**	**75.8**	**24.2**	**100.0**	

Table 2 Place of birth of animals used for the first time in experimental procedures by species of animal (excludes non-human primates)

Northern Ireland 2025

Species of animal	Place of birth						Total	% of total
	Animals born in the UK at a licensed establishment	Animals born in the UK but **not** at a licensed establishment	Animals born elsewhere in the EU at a registered breeder	Animals born elsewhere in the EU but **not** at a registered breeder	Animals born in rest of Europe	Animals born in rest of world		
Mammal								
Mouse *(Mus musculus)**	9,082	0	1,420	0	0	162	**10,664**	**71.4**
Rat *(Rattus norvegicus)**	480	0	381	0	0	0	**861**	**5.8**
Guinea-pig *(Cavia porcellus)**	0	0	0	0	0	0	**0**	**0.0**
Hamster (Syrian) (*Mesocricetus auratus*)*	0	0	0	0	0	0	**0**	**0.0**
Hamster (chinese) (*Cricetulus griseus*)*	0	0	0	0	0	0	**0**	**0.0**
Gerbil *(Unguiculatus)**	0	0	0	0	0	0	**0**	**0.0**
Other rodent (other *Rodentia*)	0	0	0	0	0	0	**0**	**0.0**
Rabbit *(Oryctolagus cuniculus)*	0	0	0	0	0	0	**0**	**0.0**
Cat *(Felis catus)*	0	0	0	0	0	0	**0**	**0.0**
Beagle *(Canis lupus familiaris)*	6	0	0	0	0	0	**6**	**0.0**
Other dog (other *Canis*)	0	0	0	0	0	0	**0**	**0.0**
Ferret *(Mustela putorius furo)*	0	0	0	0	0	0	**0**	**0.0**
Other carnivore (other *Carnivora*)	0	0	0	0	0	0	**0**	**0.0**
Horse and other equid *(Equidae)*	0	0	0	0	0	0	**0**	**0.0**
Pig *(Sus scrofa domesticus)*	297	0	0	0	0	0	**297**	**2.0**
Minipig (*Sus scrofa*)	0	0	0	0	0	0	**0**	**0.0**
Goat *(Capra aegagrus hircus)*	0	28	0	0	0	0	**28**	**0.2**
Sheep *(Ovis aries)*	40	187	0	0	0	0	**227**	**1.5**
Cattle *(Bos primigenius)*	167	81	0	0	0	0	**248**	**1.7**
Other mammal (other *Mammalia*)	0	0	0	0	0	0	**0**	**0.0**
Bird								
Domestic fowl (*Gallus domesticus*)	24	1,864	0	0	0	0	**1,888**	**12.6**
Quail *(Coturnix coturnix)*	0	0	0	0	0	0	**0**	**0.0**
Other bird (other *Aves*)	0	0	0	0	0	0	**0**	**0.0**
Reptile *(Reptilia)*	0	0	0	0	0	0	**0**	**0.0**
Amphibian								
Rana *(temporaria and pipiens)**	0	0	0	0	0	0	**0**	**0.0**
Xenopus *(laevis and tropicalis)**	0	0	0	0	0	0	**0**	**0.0**
Other amphibian (other *Amphibia*)	0	0	0	0	0	0	**0**	**0.0**
Fish								
Zebrafish *(Danio rerio)**	0	0	0	0	0	0	**0**	**0.0**
Other fish (other *Pisces*)	0	719	0	0	0	0	**719**	**4.8**
Cephalopod *(Cephalopoda)*	0	0	0	0	0	0	**0**	**0.0**
Total	**10,096**	**2,879**	**1,801**	**0**	**0**	**162**	**14,938**	**100.0**
% of total	**67.6**	**19.3**	**12.1**	**0.0**	**0.0**	**1.1**		

* Denotes species listed in Schedule 2; pigs and sheep are only listed in Schedule 2 if they are genetically altered.

Table 3 Experimental procedures by species of animal, severity and purpose of the procedure, page 1 of 3

Northern Ireland 2025

Species of animal	Actual Severity	Experimental purpose of procedure							Total	% of species total
		Basic Research	Translational/ Applied research	Protection of the natural environment	Preservation of species	Higher education or training	Forensic enquiries	Regulatory		
Mouse (*Mus musculus*)	Sub-threshold	494	0	0	0	0	0	0	**494**	**4.6**
	Non-recovery	30	0	0	0	0	0	0	**30**	**0.3**
	Mild	2,294	849	0	0	0	0	0	**3,143**	**29.5**
	Moderate	2,426	4,179	0	0	0	0	0	**6,605**	**61.9**
	Severe	261	131	0	0	0	0	0	**392**	**3.7**
	Total	**5,505**	**5,159**	**0**	**0**	**0**	**0**	**0**	**10,664**	**100.0**
Rat (*Rattus norvegicus*)	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	106	0	0	0	0	0	**106**	**12.3**
	Moderate	266	488	0	0	0	0	0	**754**	**87.6**
	Severe	0	1	0	0	0	0	0	**1**	**0.1**
	Total	**266**	**595**	**0**	**0**	**0**	**0**	**0**	**861**	**100.0**
Guinea-pig (*Cavia porcellus*)	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Other rodent[1]	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Rabbit (*Oryctolagus cuniculus*)	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Cat (*Felis catus*)	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	41	**41**	**71.9**
	Moderate	0	0	0	0	0	0	16	**16**	**28.1**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**57**	**57**	**100.0**
Dog[2]	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	67	**67**	**71.3**
	Moderate	0	0	0	0	0	0	27	**27**	**28.7**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**94**	**94**	**100.0**

Table 3 Experimental procedures by species of animal, severity and purpose of the procedure, page 2 of 3

Northern Ireland 2025

Species of animal	Actual Severity	Experimental purpose of procedure							Total	% of species total
		Basic Research	Translational/ Applied research	Protection of the natural environment	Preservation of species	Higher education or training	Forensic enquiries	Regulatory		
Ferret (*Mustela putorius furo*)	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Horse and other equid (*Equidae*)	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Pig (*Sus scrofa domesticus*)	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	18	0	0	0	0	0	**18**	**5.8**
	Mild	0	291	0	0	0	0	0	**291**	**94.2**
	Moderate	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**309**	**0**	**0**	**0**	**0**	**0**	**309**	**100.0**
Minipig (*Sus scrofa*)	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Goat (*Capra aegagrus hircus*)	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	28	**28**	**100.0**
	Moderate	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**28**	**100.0**
Sheep (*Ovis aries*)	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	40	178	0	0	0	0	2	**220**	**96.9**
	Moderate	0	7	0	0	0	0	0	**7**	**3.1**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**40**	**185**	**0**	**0**	**0**	**0**	**2**	**227**	**100.0**
Cattle (*Bos primigenius*)	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	169	127	0	0	0	0	33	**329**	**74.3**
	Moderate	80	0	0	0	0	0	34	**114**	**25.7**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**249**	**127**	**0**	**0**	**0**	**0**	**67**	**443**	**100.0**
Other mammal (other *Mammalia*)	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

Table 3 Experimental procedures by species of animal, severity and purpose of the procedure, page 3 of 3

Northern Ireland 2025

Species of animal	Actual Severity	Experimental purpose of procedure							Total	% of species total
		Basic Research	Translational/ Applied research	Protection of the natural environment	Preservation of species	Higher education or training	Forensic enquiries	Regulatory		
Primate	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Bird	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	24	0	0	0	0	**24**	**1.3**
	Mild	0	0	1,764	0	0	0	0	**1,764**	**93.4**
	Moderate	0	0	56	0	0	0	0	**56**	**3.0**
	Severe	0	0	44	0	0	0	0	**44**	**2.3**
	Total	**0**	**0**	**1,888**	**0**	**0**	**0**	**0**	**1,888**	**100.0**
Reptile	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Amphibian	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Fish	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild		0	104	0	0	0	0	**104**	**14.5**
	Moderate	201	0	400	14	0	0	0	**615**	**85.5**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**201**	**0**	**504**	**14**	**0**	**0**	**0**	**719**	**100.0**
Cephalopods	Sub-threshold	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
All species	Sub-threshold	494	0	0	0	0	0	0	**494**	**3.2**
	Non-recovery	30	18	24	0	0	0	0	**72**	**0.5**
	Mild	2,503	1,551	1,868	0	0	0	171	**6,093**	**39.8**
	Moderate	2,973	4,674	456	14	0	0	77	**8,194**	**53.6**
	Severe	261	132	44	0	0	0	0	**437**	**2.9**
	Total	**6,261**	**6,375**	**2,392**	**14**	**0**	**0**	**248**	**15,290**	**100.0**

1. “Other rodent” includes Syrian hamster (Mesocricetus auratus), Chinese hamster (Cricetulus griseus), Gerbil (Unguiculatus), and other rodents (other Rodentia).
2. “Dog” includes beagles (Canis lupus familiaris) and other dogs (other Canis)

Table 4 Experimental procedures by species of animal and genetic status

Northern Ireland 2025

Species of animal	Genetic status			Total	% of total
	Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype		
Mammal					
Mouse *(Mus musculus)*	5,697	2,922	2,045	**10,664**	**69.7**
Rat *(Rattus norvegicus)*	861	0	0	**861**	**5.6**
Guinea-pig *(Cavia porcellus)*	0	0	0	**0**	**0.0**
Hamster (Syrian) (*Mesocricetus auratus*)	0	0	0	**0**	**0.0**
Hamster (Chinese) (*Cricetulus griseus*)	0	0	0	**0**	**0.0**
Gerbil *(Unguiculatus)*	0	0	0	**0**	**0.0**
Other rodent (other *Rodentia)*	0	0	0	**0**	**0.0**
Rabbit *(Oryctolagus cuniculus)*	0	0	0	**0**	**0.0**
Cat *(Felis catus)*	57	0	0	**57**	**0.4**
Beagle *(Canis lupus familiaris)*	94	0	0	**94**	**0.6**
Other dog (other *Canis*)	0	0	0	**0**	**0.0**
Ferret *(Mustela putorius furo)*	0	0	0	**0**	**0.0**
Other carnivore (other *Carnivora)*	0	0	0	**0**	**0.0**
Horse and other equid *(Equidae)*	0	0	0	**0**	**0.0**
Pig *(Sus scrofa domesticus)*	309	0	0	**309**	**2.0**
Minipig *(Sus scrofa)*	0	0	0	**0**	**0.0**
Goat *(Capra aegagrus hircus)*	28	0	0	**28**	**0.2**
Sheep *(Ovis aries)*	227	0	0	**227**	**1.5**
Cattle *(Bos primigenius)*	443	0	0	**443**	**2.9**
Primate	0	0	0	**0**	**0.0**
Other mammal (other *Mammalia)*	0	0	0	**0**	**0.0**
Bird					
Domestic fowl (*Gallus domesticus*)	1,888	0	0	**1,888**	**12.3**
Quail *(Coturnix coturnix)*	0	0	0	**0**	**0.0**
Other bird (other *Aves)*	0	0	0	**0**	**0.0**
Reptile *(Reptilia)*	0	0	0	**0**	**0.0**
Amphibian					
Rana *(temporaria and pipiens)*	0	0	0	**0**	**0.0**
Xenopus *(laevis and tropicalis)*	0	0	0	**0**	**0.0**
Other amphibian (other *Amphibia)*	0	0	0	**0**	**0.0**
Fish					
Zebrafish *(Danio rerio)*	0	0	0	**0**	**0.0**
Other fish (other *Pisces)*	719	0	0	**719**	**4.7**
Cephalopod *(Cephalopoda)*	**0**	**0**	**0**	**0**	**0.0**
Total	**10,323**	**2,922**	**2,045**	**15,290**	**100.0**
% of total	**67.5**	**19.1**	**13.4**		

Table 5 Experimental procedures (non-regulatory) by species of animal: basic research

Northern Ireland 2025

Species of animal	Basic Research													Total	% of total
	Oncology	Cardio-vascular Blood and Lymphatic System	Nervous System	Respir-atory System	Gastro-intestinal System including Liver	Musculo-skeletal System	Immune System	Urogenital / Repro-ductive System	Sensory Organs (skin, eyes and ears)	Endocrine System / Meta-bolism	Multi-systemic	Ethology / Animal Behaviour / Animal Biology	Other		
Mammal															
Mouse *(Mus musculus)*	2,087	537	115	56	0	0	967	0	1,479	255	0	0	9	**5,505**	**87.9**
Rat *(Rattus norvegicus)*	0	0	0	0	0	0	0	0	0	0	266	0	0	**266**	**4.2**
Guinea-pig *(Cavia porcellus)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Hamster (Syrian) (*Mesocricetus auratus*)	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Hamster (Chinese) (*Cricetulus griseus*)	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Gerbil *(Unguiculatus)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other rodent (other *Rodentia)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Rabbit *(Oryctolagus cuniculus)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Cat *(Felis catus)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Beagle *(Canis lupus familiaris)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other dog (other *Canis*)	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Ferret *(Mustela putorius furo)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other carnivore (other *Carnivora*)	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Horse and other equid *(Equidae)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Pig *(Sus scrofa domesticus)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Minipig *(Sus scrofa)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Goat *(Capra aegagrus hircus)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Sheep *(Ovis aries)*	0	0	0	0	0	0	0	0	0	0	0	40	0	**40**	**0.6**
Cattle *(Bos primigenius)*	0	0	0	0	0	0	24	0	0	0	150	75	0	**249**	**4.0**
Primate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other mammal (other *Mammalia*)	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Bird															
Domestic fowl (*Gallus domesticus*)	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Quail *(Coturnix coturnix)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other bird (other *Aves*)	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Reptile *(Reptilia)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Amphibian															
Rana *(temporaria and pipiens)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Xenopus *(laevis and tropicalis)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other amphibian (other *Amphibia)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Fish															
Zebrafish *(Danio rerio)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other fish (other *Pisces*)	0	0	0	0	0	0	0	0	0	0	0	201	0	**201**	**3.2**
Cephalopod *(Cephalopoda)*	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Total	**2,087**	**537**	**115**	**56**	**0**	**0**	**991**	**0**	**1,479**	**255**	**416**	**316**	**9**	**6,261**	**100.0**
% of total	**33.3**	**8.6**	**1.8**	**0.9**	**0.0**	**0.0**	**15.8**	**0.0**	**23.6**	**4.1**	**6.6**	**5.0**	**0.1**	**100.0**	

Table 6 Experimental procedures (non-regulatory) by species of animal: translational/applied research, page 1 of 2

Northern Ireland 2025

Species of animal	Translational/applied research								
	Human Cancer	Human Infectious Disorders	Human Cardiovascular Disorders	Human Nervous and Mental Disorders	Human Respiratory Disorders	Human Gastrointestinal Disorders including Liver	Human Musculoskeletal Disorders	Human Immune Disorders	Human Urogenital/ Reproductive Disorders
Mammal									
Mouse *(Mus musculus)*	2,781	560	0	155	657	0	0	298	0
Rat *(Rattus norvegicus)*	379	88	0	0	18	0	0	0	0
Guinea-pig *(Cavia porcellus)*	0	0	0	0	0	0	0	0	0
Hamster (Syrian) (*Mesocricetus auratus*)	0	0	0	0	0	0	0	0	0
Hamster (Chinese) (*Cricetulus griseus*)	0	0	0	0	0	0	0	0	0
Gerbil *(Unguiculatus)*	0	0	0	0	0	0	0	0	0
Other rodent (other *Rodentia*)	0	0	0	0	0	0	0	0	0
Rabbit *(Oryctolagus cuniculus)*	0	0	0	0	0	0	0	0	0
Cat *(Felis catus)*	0	0	0	0	0	0	0	0	0
Beagle *(Canis lupus familiaris)*	0	0	0	0	0	0	0	0	0
Other dog (other *Canis*)	0	0	0	0	0	0	0	0	0
Ferret *(Mustela putorius furo)*	0	0	0	0	0	0	0	0	0
Other carnivore (other *Carnivora*)	0	0	0	0	0	0	0	0	0
Horse and other equid *(Equidae)*	0	0	0	0	0	0	0	0	0
Pig *(Sus scrofa domesticus)*	0	0	18	0	0	0	0	0	0
Minipig *(Sus scrofa)*	0	0	0	0	0	0	0	0	0
Goat *(Capra aegagrus hircus)*	0	0	0	0	0	0	0	0	0
Sheep *(Ovis aries)*	0	0	0	0	0	0	0	0	0
Cattle *(Bos primigenius)*	0	0	0	0	0	0	0	0	0
Primate	0	0	0	0	0	0	0	0	0
Other mammal (other *Mammalia*)	0	0	0	0	0	0	0	0	0
Bird									
Domestic fowl (*Gallus domesticus*)	0	0	0	0	0	0	0	0	0
Quail *(Coturnix coturnix)*	0	0	0	0	0	0	0	0	0
Other bird (other *Aves*)	0	0	0	0	0	0	0	0	0
Reptile *(Reptilia)*	0	0	0	0	0	0	0	0	0
Amphibian									
Rana *(temporaria and pipiens)*	0	0	0	0	0	0	0	0	0
Xenopus *(laevis and tropicalis)*	0	0	0	0	0	0	0	0	0
Other amphibian (other *Amphibia*)	0	0	0	0	0	0	0	0	0
Fish									
Zebrafish *(Danio rerio)*	0	0	0	0	0	0	0	0	0
Other fish (other *Pisces*)	0	0	0	0	0	0	0	0	0
Cephalopod *(Cephalopoda)*	0	0	0	0	0	0	0	0	0
Total	**3,160**	**648**	**18**	**155**	**675**	**0**	**0**	**298**	**0**
% of total	**49.6**	**10.2**	**0.3**	**2.4**	**10.6**	**0.0**	**0.0**	**4.7**	**0.0**

Table 6 Experimental procedures (non-regulatory) by species of animal: translational/applied research, page 2 of 2

Northern Ireland 2025

Species of animal	Translational/applied research								Total	% of total
	Human Sensory Organ Disorders (skin, eyes and ears)	Human Endocrine/ Metabolism Disorders	Other Human Disorders	Animal Diseases and Disorders	Animal Welfare/ Nutrition	Diagnosis of diseases	Plant diseases	Non-regulatory toxicology and ecotoxicology		
Mammal										
Mouse *(Mus musculus)*	708	0	0	0	0	0	0	0	**5,159**	**80.9**
Rat *(Rattus norvegicus)*	110	0	0	0	0	0	0	0	**595**	**9.3**
Guinea-pig *(Cavia porcellus)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Hamster (Syrian) (*Mesocricetus auratus*)	0	0	0	0	0	0	0	0	**0**	**0.0**
Hamster (Chinese) (*Cricetulus griseus*)	0	0	0	0	0	0	0	0	**0**	**0.0**
Gerbil *(Unguiculatus)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Other rodent (other *Rodentia)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Rabbit *(Oryctolagus cuniculus)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Cat *(Felis catus)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Beagle *(Canis lupus familiaris)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Other dog (other *Canis*)	0	0	0	0	0	0	0	0	**0**	**0.0**
Ferret *(Mustela putorius furo)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Other carnivore (other *Carnivora*)	0	0	0	0	0	0	0	0	**0**	**0.0**
Horse and other equid *(Equidae)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Pig *(Sus scrofa domesticus)*	0	0	0	0	291	0	0	0	**309**	**4.8**
Minipig *(Sus scrofa)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Goat *(Capra aegagrus hircus)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Sheep *(Ovis aries)*	0	0	0	0	0	185	0	0	**185**	**2.9**
Cattle *(Bos primigenius)*	0	0	0	127	0	0	0	0	**127**	**2.0**
Primate	0	0	0	0	0	0	0	0	**0**	**0.0**
Other mammal (other *Mammalia*)	0	0	0	0	0	0	0	0	**0**	**0.0**
Bird										
Domestic fowl (*Gallus domesticus*)	0	0	0	0	0	0	0	0	**0**	**0.0**
Quail *(Coturnix coturnix)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Other bird (other *Aves*)	0	0	0	0	0	0	0	0	**0**	**0.0**
Reptile *(Reptilia)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Amphibian										
Rana *(temporaria and pipiens)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Xenopus *(laevis and tropicalis)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Other amphibian (other *Amphibia)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Fish										
Zebrafish *(Danio rerio)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Other fish (other *Pisces*)	0	0	0	0	0	0	0	0	**0**	**0.0**
Cephalopod *(Cephalopoda)*	0	0	0	0	0	0	0	0	**0**	**0.0**
Total	**818**	**0**	**0**	**127**	**291**	**185**	**0**	**0**	**6,375**	**100.0**
% of total	**12.8**	**0.0**	**0.0**	**2.0**	**4.6**	**2.9**	**0.0**	**0.0**		

Table 7.1 Experimental procedures by species of animal: regulatory use

Northern Ireland 2025

Species of animal	Routine Production			Quality control				Other efficacy and tolerance testing	Toxicity and other safety testing including pharmacology	Total	% of total
	Blood based products	Monoclonal antibody production (ascites)	Other	Batch safety testing	Pyrogenicity testing	Batch potency testing	Other quality controls				
Mammal											
Mouse *(Mus musculus)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Rat *(Rattus norvegicus)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Guinea-pig *(Cavia porcellus)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Hamster (Syrian) (*Mesocricetus auratus*)	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Hamster (Chinese) (*Cricetulus griseus*)	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Gerbil *(Unguiculatus)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Other rodent (other *Rodentia)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Rabbit *(Oryctolagus cuniculus)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Cat *(Felis catus)*	0	0	0	0	0	0	6	**35**	**16**	**57**	**23.0**
Beagle *(Canis lupus familiaris)*	0	0	0	0	0	0	5	**8**	**81**	**94**	**37.9**
Other dog (other *Canis*)	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Ferret *(Mustela putorius furo)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Other carnivore (other *Carnivora*)	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Horse and other equid *(Equidae)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Pig *(Sus scrofa domesticus)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Minipig *(Sus scrofa)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Goat *(Capra aegagrus hircus)*	0	0	0	0	0	0	0	**0**	**28**	**28**	**11.3**
Sheep *(Ovis aries)*	0	0	0	0	0	0	0	**0**	**2**	**2**	**0.8**
Cattle *(Bos primigenius)*	0	0	0	0	0	0	15	**6**	**46**	**67**	**27.0**
Primate	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Other mammal (other *Mammalia*)	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Bird											
Domestic fowl (*Gallus domesticus*)	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Quail *(Coturnix coturnix)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Other bird (other *Aves*)	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Reptile *(Reptilia)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Amphibian											
Rana *(temporaria and pipiens)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Xenopus *(laevis and tropicalis)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Other amphibian (other *Amphibia)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Fish											
Zebrafish *(Danio rerio)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Other fish (other *Pisces*)	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Cephalopod *(Cephalopoda)*	0	0	0	0	0	0	0	**0**	**0**	**0**	**0.0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**26**	**49**	**173**	**248**	**100.0**
% of total	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**10.5**	**19.8**	**69.8**	**100.0**	

Rounded figures: Individual figures have been rounded to one decimal place independently. As a result, the sum of the component items may not therefore always add to the totals shown.

Table 7.2 Experimental procedures by species of animal: regulatory use by legislative requirement

Northern Ireland 2025

Species of animal	Testing by legislation										Total	% of total
	Legislation on medicinal products for human use	Legislation on medicinal products for veterinary use and their residues	Medical devices legislation	Industrial chemicals legislation	Plant protection product legislation	Biocides legislation	Food legislation including food contact material	Feed legislation including legislation for the safety of target animals, workers and environment	Cosmetics legislation	Other		
Mammal												
Mouse (*Mus musculus*)	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Rat (*Rattus norvegicus*)	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
All other rodent[1]	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Rabbit (*Oryctolagus cuniculus*)	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Cat (*Felis catus*)	0	57	0	0	0	0	0	0	0	0	**57**	**23.0**
Dog	0	94	0	0	0	0	0	0	0	0	**94**	**37.9**
Ferret (*Mustela putorius furo*)	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other carnivore (other *Carnivora*)	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Horse and other equid (*Equidae*)	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Pig (*Sus scrofa domesticus)*	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Minipig (Sus scrofa)	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Goat (*Capra aegagrus hircus*)	0	28	0	0	0	0	0	0	0	0	**28**	**11.3**
Sheep (*Ovis aries*)	0	0	0	0	0	0	2	0	0	0	**2**	**0.8**
Cattle (*Bos primigenius*)	0	67	0	0	0	0	0	0	0	0	**67**	**27.0**
Primate	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other mammal (other *Mammalia*)	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Bird	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Reptile, amphibian	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Fish	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Cephalopod	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Total	**0**	**246**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**248**	**100.0**
% of total	**0.0**	**99.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.8**	**0.0**	**0.0**	**0.0**	**100**	

1. “All other rodent” includes guinea pig (Cavia porcellus), Syrian hamster (Mesocricetus auratus), Chinese hamster (Cricetulus griseus), Gerbil (Unguiculatus), and other rodents (other Rodentia).

Table 7.3 Experimental procedures by species of animal: regulatory use by origin of legislative requirement

Northern Ireland 2025

Species of animal	Legislative requirement			Total	% of total
	Legislation satisfying EU requirements	Legislation satisfying only UK requirements	Legislation satisfying Non-EU requirements only		
Mammal					
Mouse *(Mus musculus)*	0	0	0	**0**	**0.0**
Rat *(Rattus norvegicus)*	0	0	0	**0**	**0.0**
Guinea-pig *(Cavia porcellus)*	0	0	0	**0**	**0.0**
Hamster (Syrian) (*Mesocricetus auratus*)	0	0	0	**0**	**0.0**
Hamster (Chinese) (*Cricetulus griseus*)	0	0	0	**0**	**0.0**
Gerbil *(Unguiculatus)*	0	0	0	**0**	**0.0**
Other rodent (other *Rodentia)*	0	0	0	**0**	**0.0**
Rabbit *(Oryctolagus cuniculus)*	0	0	0	**0**	**0.0**
Cat *(Felis catus)*	57	0	0	**57**	**23.0**
Beagle *(Canis lupus familiaris)*	94	0	0	**94**	**37.9**
Other dog (other *Canis*)	0	0	0	**0**	**0.0**
Ferret *(Mustela putorius furo)*	0	0	0	**0**	**0.0**
Other carnivore (other *Carnivora*)	0	0	0	**0**	**0.0**
Horse and other equid *(Equidae)*	0	0	0	**0**	**0.0**
Pig *(Sus scrofa domesticus)*	0	0	0	**0**	**0.0**
Minipig *(Sus scrofa)*	0	0	0	**0**	**0.0**
Goat *(Capra aegagrus hircus)*	28	0	0	**28**	**11.3**
Sheep *(Ovis aries)*	2	0	0	**2**	**0.8**
Cattle *(Bos primigenius)*	67	0	0	**67**	**27.0**
Primate	0	0	0	**0**	**0.0**
Other mammal (other *Mammalia*)	0	0	0	**0**	**0.0**
Bird					
Domestic fowl (*Gallus domesticus*)	0	0	0	**0**	**0.0**
Quail *(Coturnix coturnix)*	0	0	0	**0**	**0.0**
Other bird (other *Aves*)	0	0	0	**0**	**0.0**
Reptile *(Reptilia)*	0	0	0	**0**	**0.0**
Amphibian					
Rana *(temporaria and pipiens)*	0	0	0	**0**	**0.0**
Xenopus *(laevis and tropicalis)*	0	0	0	**0**	**0.0**
Other amphibian (other *Amphibia)*	0	0	0	**0**	**0.0**
Fish					
Zebrafish *(Danio rerio)*	0	0	0	**0**	**0.0**
Other fish (other *Pisces*)	0	0	0	**0**	**0.0**
Cephalopod *(Cephalopoda)*	0	0	0	**0**	**0.0**
Total	**248**	**-**	**-**	**248**	**100.0**
% of total	**100.0**	**0.0**	**0.0**	**100.0**	

Table 7.4 Experimental procedures by species of animal: regulatory use by type of test - toxicity and other safety testing including pharmacology, page 1 of 2

Northern Ireland 2025

Species of animal	Acute and sub-acute toxicity testing methods			Other type of regulatory test or procedure										
	LD50 and LC50	Other lethal methods	Non-lethal methods	Skin irritation/ corrosion	Skin sensitisation	Eye irritation/ corrosion	Repeated dose toxicity	Carcino-genicity	Genotoxicity	Reproductive toxicity	Develop-mental toxicity	Safety testing in food and feed area	Target animal safety
Mammal													
Mouse (*Mus musculus*)	0	0	0	0	0	0	0	0	0	0	0	0	0
Rat (*Rattus norvegicus*)	0	0	0	0	0	0	0	0	0	0	0	0	0
All other rodent[1]	0	0	0	0	0	0	0	0	0	0	0	0	0
Rabbit (*Oryctolagus cuniculus*)	0	0	0	0	0	0	0	0	0	0	0	0	0
Cat (*Felis catus*)	0	0	0	0	0	0	0	0	0	0	0	0	12
Dog	0	0	0	0	0	0	0	0	0	0	0	0	27
Ferret (*Mustela putorius furo*)	0	0	0	0	0	0	0	0	0	0	0	0	0
Other carnivore (other *Carnivora*)	0	0	0	0	0	0	0	0	0	0	0	0	0
Horse and other equid (*Equidae*)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pig (*Sus scrofa domesticus*)	0	0	0	0	0	0	0	0	0	0	0	0	0
Minipig (*Sus scrofa*)	0	0	0	0	0	0	0	0	0	0	0	0	0
Goat (*Capra aegagrus hircus*)	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheep (*Ovis aries*)	0	0	0	0	0	0	0	0	0	0	0	2	0
Cattle (*Bos primigenius*)	0	0	0	0	0	0	0	0	0	0	0	0	0
Primate	0	0	0	0	0	0	0	0	0	0	0	0	0
Other mammal (other *Mammalia*)	0	0	0	0	0	0	0	0	0	0	0	0	0
Bird	0	0	0	0	0	0	0	0	0	0	0	0	0
Reptile, amphibian	0	0	0	0	0	0	0	0	0	0	0	0	0
Fish	0	0	0	0	0	0	0	0	0	0	0	0	0
Cephalopod	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**39**
% of total	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**1.2**	**22.5**

1. “All other rodent” includes guinea pig (Cavia porcellus), Syrian hamster (Mesocricetus auratus), Chinese hamster (Cricetulus griseus), Gerbil (Unguiculatus), and other rodents (other Rodentia).

Table 7.4 Experimental procedures by species of animal: regulatory use by type of test - toxicity and other safety testing including pharmacology, page 2 of 2

Northern Ireland 2025

Species of animal	Other type of regulatory test or procedure				Ecotoxicity						Other type of toxicity or safety test	Total	% of total
	Neurotoxicity	Kinetics	Pharmo-dynamics	Phototoxicity	Acute toxicity	Chronic toxicity	Reproductive toxicity	Endocrine activity	Bioaccu-mulation	Other			
Mammal													
Mouse (*Mus musculus*)	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Rat (*Rattus norvegicus*)	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
All other rodent[1]	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Rabbit (*Oryctolagus cuniculus*)	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Cat (*Felis catus*)	0	4	0	0	0	0	0	0	0	0	0	**16**	**9.2**
Dog	0	54	0	0	0	0	0	0	0	0	0	**81**	**46.8**
Ferret (*Mustela putorius furo*)	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other carnivore (other *Carnivora*)	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Horse and other equid (*Equidae*)	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Pig (*Sus scrofa domesticus)*	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Minipig (Sus scrofa)	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Goat (Capra aegagrus hircus)	0	28	0	0	0	0	0	0	0	0	0	**28**	**16.2**
Sheep (Ovis aries)	0	0	0	0	0	0	0	0	0	0	0	**2**	**1.2**
Cattle (Bos primigenius)	0	46	0	0	0	0	0	0	0	0	0	**46**	**26.6**
Primate	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other mammal (other *Mammalia*)	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Bird	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Reptile, amphibian	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Fish	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Cephalopod	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Total	**0**	**132**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**173**	**100.0**
% of total	**0.0**	**76.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100.0**	

1. “All other rodent” includes guinea pig (Cavia porcellus), Syrian hamster (Mesocricetus auratus), Chinese hamster (Cricetulus griseus), Gerbil (Unguiculatus), and other rodents (other Rodentia).

Table 8 Creation of new lines and maintenance of established lines of genetically altered animals (not used in experimental procedures) by species of animal, severity and genetic status, page 1 of 2

Northern Ireland 2025

Species of animal	Actual severity	Genetic status			Total	% of species total
		Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype		
Mouse (*Mus musculus*)	Sub-threshold	2	2,764	1,616	**4,382**	**79.4**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	7	841	191	**1,039**	**18.8**
	Moderate	0	1	75	**76**	**1.4**
	Severe	1	17	3	**21**	**0.4**
	Total	**10**	**3,623**	**1,885**	**5,518**	**100.0**
Rat (*Rattus norvegicus*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Guinea-pig (*Cavia porcellus*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Other rodent[1]	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Rabbit (*Oryctolagus cuniculus*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Cat (*Felis catus*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Dog	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Ferret (*Mustela putorius furo*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Horse and other equid (*Equidae*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Pig (*Sus scrofa domesticus*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Minipig (*Sus scrofa*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**

Table 8 Creation of new lines and maintenance of established lines of genetically altered animals (not used in experimental procedures) by species of animal, severity and genetic status, page 2 of 2

Northern Ireland 2025

Species of animal	Actual severity	Genetic status			Total	% of species total
		Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype		
Goat (*Capra aegagrus hircus*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Sheep (*Ovis aries*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Cattle (*Bos primigenius*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Other mammal[2]	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Primate	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Bird	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Reptile	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Amphibian	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Fish	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Cephalopod	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
All species	Sub-threshold	2	2,764	1,616	**4,382**	**79.4**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	7	841	191	**1,039**	**18.8**
	Moderate	0	1	75	**76**	**1.4**
	Severe	1	17	3	**21**	**0.4**
	Total	**10**	**3,623**	**1,885**	**5,518**	**100.0**

1. "Other rodent" includes Syrian hamster (*Mesocricetus auratus*), Chinese hamster (*Cricetulus griseus*), Gerbil (*Unguiculatus*), and other rodents (other *Rodentia*).

2. "Other mammal" includes other carnivores (other *Carnivora*) and other mammals (other *Mammalia*).

Table 9.1 Creation of new lines of genetically altered animals (not used in experimental procedures) by species of animal, severity and genetic status, page 1 of 3

Northern Ireland 2025

Species of animal	Actual severity	Basic research by genetic status			Translational/applied research			Total by genetic status			Total	% of species total
		Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype	Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype	Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype		
Mouse (*Mus musculus*)	Sub-threshold	0	269	0	0	0	0	0	269	0	**269**	**36.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	2	403	66	0	0	0	2	403	66	**471**	**63.0**
	Moderate	0	0	1	0	0	0	0	0	1	**1**	**0.1**
	Severe	0	7	2	0	0	0	0	7	2	**9**	**1.2**
	Total	**2**	**679**	**69**	**0**	**0**	**0**	**2**	**679**	**69**	**750**	**100.0**
Rat (*Rattus norvegicus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Guinea-pig (*Cavia porcellus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Other rodent[1]	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Rabbit (*Oryctolagus cuniculus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Cat (*Felis catus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Dog	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Ferret (*Mustela putorius furo*)	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

Table 9.1 Creation of new lines of genetically altered animals (not used in experimental procedures) by species of animal, severity and genetic status, page 2 of 3

Northern Ireland 2025

Species of animal	Actual severity	Basic research by genetic status			Translational/applied research			Total by genetic status			Total	% of species total
		Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype	Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype	Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype		
Horse and other equid (*Equidae*)	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Pig (*Sus scrofa domesticus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Minipig (*Sus scrofa*)	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Goat (*Capra aegagrus hircus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Sheep (*Ovis aries*)	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Cattle (*Bos primigenius*)	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Other mammal[2]	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Primate	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

Table 9.1 Creation of new lines of genetically altered animals (not used in experimental procedures) by species of animal, severity and genetic status, page 3 of 3

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Species of animal	Actual severity	Basic research by genetic status			Translational/applied research			Total by genetic status			Total	% of species total
		Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype	Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype	Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype		
Bird	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Reptile	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Amphibian	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Fish	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Cephalopod	Sub-threshold	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
All species	Sub-threshold	0	269	0	0	0	0	0	269	0	**269**	**35.9**
	Non-recovery	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	2	403	66	0	0	0	2	403	66	**471**	**62.8**
	Moderate	0	0	1	0	0	0	0	0	1	**1**	**0.1**
	Severe	0	7	2	0	0	0	0	7	2	**9**	**1.2**
	Total	**2**	**679**	**69**	**0**	**0**	**0**	**0**	**679**	**69**	**750**	**100.0**

1. “Other rodent” includes Syrian hamster (*Mesocricetus auratus*), Chinese hamster (*Cricetulus griseus*), Gerbil (*Unguiculatus*), and other rodents (other *Rodentia*).
2. “Other mammal” includes other carnivores (other *Carnivora*) and other mammals (other *Mammalia*).

Table 9.2 Creation of new lines of genetically altered animals (not used in experimental procedures) by species of animal and severity: basic research, page 1 of 3

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Species of animal	Actual severity	Basic Research													Total	% of species total
		Oncology	Cardio-vascular Blood and Lymphatic System	Nervous System	Respiratory System	Gastro-intestinal System including Liver	Musculo-skeletal System	Immune System	Urogenital / Repro-ductive System	Sensory Organs (skin, eyes and ears)	Endocrine System / Metabolism	Multi-systemic	Ethology / Animal Behaviour / Animal Biology	Other		
Mouse (*Mus musculus*)	Sub-threshold	0	0	0	0	0	0	269	0	0	0	0	0	0	**269**	**35.9**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	34	0	437	0	0	0	0	**471**	**62.8**
	Moderate	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**	**0.1**
	Severe	0	0	0	0	0	0	7	0	2	0	0	0	0	**9**	**1.2**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**310**	**0**	**440**	**0**	**0**	**0**	**0**	**750**	**100.0**
Rat (*Rattus norvegicus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Guinea-pig (*Cavia porcellus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Other rodent[1]	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Rabbit (*Oryctolagus cuniculus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Cat (*Felis catus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Dog	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Ferret (*Mustela putorius furo*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

Table 9.2 Creation of new lines of genetically altered animals (not used in experimental procedures) by species of animal and severity: basic research, page 2 of 3

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Species of animal	Actual severity	Basic Research													Total	% of species total
		Oncology	Cardio-vascular Blood and Lymphatic System	Nervous System	Respiratory System	Gastro-intestinal System including Liver	Musculo-skeletal System	Immune System	Urogenital / Repro-ductive System	Sensory Organs (skin, eyes and ears)	Endocrine System / Metabolism	Multi-systemic	Ethology / Animal Behaviour / Animal Biology	Other		
Horse and other equid (*Equidae*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Pig (*Sus scrofa domesticus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Minipig (*Sus scrofa*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Goat (*Capra aegagrus hircus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Sheep (*Ovis aries*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Cattle (*Bos primigenius*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Other mammal[2]	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Primate	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

Table 9.2 Creation of new lines of genetically altered animals (not used in experimental procedures) by species of animal and severity: basic research, page 3 of 3

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Species of animal	Actual severity	Basic Research													Total	% of species total
		Oncology	Cardio-vascular Blood and Lymphatic System	Nervous System	Respiratory System	Gastro-intestinal System including Liver	Musculo-skeletal System	Immune System	Urogenital / Repro-ductive System	Sensory Organs (skin, eyes and ears)	Endocrine System / Metabolism	Multi-systemic	Ethology / Animal Behaviour / Animal Biology	Other		
Bird	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Reptile	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Amphibian	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Fish	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Cephalopod	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
All species	Sub-threshold	0	0	0	0	0	0	269	0	0	0	0	0	0	**269**	**35.9**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	34	0	437	0	0	0	0	**471**	**62.8**
	Moderate	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**	**0.1**
	Severe	0	0	0	0	0	0	7	0	2	0	0	0	0	**9**	**1.2**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**310**	**0**	**440**	**0**	**0**	**0**	**0**	**750**	**100**

1. “Other rodent” includes Syrian hamster (*Mesocricetus auratus*), Chinese hamster (*Cricetulus griseus*), Gerbil (*Unguiculatus*), and other rodents (other *Rodentia*).
2. “Other mammal” includes other carnivores (other *Carnivora*) and other mammals (other *Mammalia*).

Table 9.3 Creation of new lines of genetically altered animals (not used in experimental procedures) by species of animal and severity: translational/applied research, page 1 of 3

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Species of animal	Actual severity	Translational/applied research																	Total	% of species total
		Human Cancer	Human Infectious Disorders	Human Cardio-vascular Disorders	Human Nervous and Mental Disorders	Human Respir-atory Disorders	Human Gastro-intestinal Disorders including Liver	Human Musculo-skeletal Disorders	Human Immune Disorders	Human Urogenital / Repro-ductive Disorders	Human Sensory Organ Disorders (skin, eyes and ears)	Human Endocrine / Meta-bolism Disorders	Other Human Disorders	Animal Diseases and Disorders	Animal Welfare/ Nutrition	Diagnosis of diseases	Plant diseases	Non-regulatory toxicology and ecotoxi-cology		
Mouse (*Mus musculus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Rat (*Rattus norvegicus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Guinea-pig (*Cavia porcellus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Other rodent[1]	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Rabbit (*Oryctolagus cuniculus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Cat (*Felis catus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Dog	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Ferret (*Mustela putorius furo*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

Table 9.3 Creation of new lines of genetically altered animals (not used in experimental procedures) by species of animal and severity: translational/applied research, page 2 of 3

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Species of animal	Actual severity	Translational/applied research																	Total	% of species total
		Human Cancer	Human Infectious Disorders	Human Cardio-vascular Disorders	Human Nervous and Mental Disorders	Human Respir-atory Disorders	Human Gastro-intestinal Disorders including Liver	Human Musculo-skeletal Disorders	Human Immune Disorders	Human Urogenital / Repro-ductive Disorders	Human Sensory Organ Disorders (skin, eyes and ears)	Human Endocrine / Meta-bolism Disorders	Other Human Disorders	Animal Diseases and Disorders	Animal Welfare/ Nutrition	Diagnosis of diseases	Plant diseases	Non-regulatory toxicology and ecotoxi-cology		
Horse and other equid (*Equidae*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Pig (*Sus scrofa domesticus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Minipig (*Sus scrofa*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Goat (*Capra aegagrus hircus*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Sheep (*Ovis aries*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Cattle (*Bos primigenius*)	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Other mammal[2]	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Primates	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

Table 9.3 Creation of new lines of genetically altered animals (not used in experimental procedures) by species of animal and severity: translational/applied research, page 3 of 3

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Species of animal	Actual severity	Translational/applied research																	Total	% of species total
		Human Cancer	Human Infectious Disorders	Human Cardio-vascular Disorders	Human Nervous and Mental Disorders	Human Respir-atory Disorders	Human Gastro-intestinal Disorders including Liver	Human Musculo-skeletal Disorders	Human Immune Disorders	Human Urogenital / Repro-ductive Disorders	Human Sensory Organ Disorders (skin, eyes and ears)	Human Endocrine / Meta-bolism Disorders	Other Human Disorders	Animal Diseases and Disorders	Animal Welfare/ Nutrition	Diagnosis of diseases	Plant diseases	Non-regulatory toxicology and ecotoxi-cology		
Bird	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Reptile	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Amphibian	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Fish	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
Cephalopod	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
All species	Sub-threshold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Mild	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Moderate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Severe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

1. “Other rodent” includes Syrian hamster (*Mesocricetus auratus*), Chinese hamster (*Cricetulus griseus*), Gerbil (*Unguiculatus*), and other rodents (other *Rodentia*).
2. “Other mammal” includes other carnivores (other *Carnivora*) and other mammals (other *Mammalia*).

Table 10 Maintenance of established lines of genetically altered animals (not used in experimental procedures) by species of animal, severity and genetic status, page 1 of 2

Northern Ireland 2025

Species of animal	Actual severity	Genetic status			Total	% of species total
		Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype		
Mouse (*Mus musculus*)	Sub-threshold	2	2,495	1,616	**4,113**	**86.3**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	5	438	125	**568**	**11.9**
	Moderate	0	1	74	**75**	**1.6**
	Severe	1	10	1	**12**	**0.3**
	Total	**8**	**2,944**	**1,816**	**4,768**	**100.0**
Rat (*Rattus norvegicus*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Guinea-pig (*Cavia porcellus*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Other rodent[1]	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Rabbit (*Oryctolagus cuniculus*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Cat (*Felis catus*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Dog	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Ferret (*Mustela putorius furo*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Horse and other equid (*Equidae*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Pig (*Sus scrofa domesticus*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Minipig (*Sus scrofa*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**

Table 10 Maintenance of established lines of genetically altered animals (not used in experimental procedures) by species of animal, severity and genetic status, page 2 of 2

Northern Ireland 2025

Species of animal	Actual severity	Genetic status			Total	% of species total
		Not genetically altered	Genetically altered without a harmful phenotype	Genetically altered with a harmful phenotype		
Goat (*Capra aegagrus hircus*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Sheep (*Ovis aries*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Cattle (*Bos primigenius*)	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Other mammal[2]	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Primate	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Bird	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Reptile	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Amphibian	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Fish	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
Cephalopod	Sub-threshold	0	0	0	**0**	**0.0**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	0	0	0	**0**	**0.0**
	Moderate	0	0	0	**0**	**0.0**
	Severe	0	0	0	**0**	**0.0**
	Total	**0**	**0**	**0**	**0**	**0.0**
All species	Sub-threshold	2	2,495	1,616	**4,113**	**86.3**
	Non-recovery	0	0	0	**0**	**0.0**
	Mild	5	438	125	**568**	**11.9**
	Moderate	0	1	74	**75**	**1.6**
	Severe	1	10	1	**12**	**0.3**
	Total	**8**	**2,944**	**1,816**	**4,768**	**100.0**

1. "Other rodent" includes Syrian hamster (*Mesocricetus auratus*), Chinese hamster (*Cricetulus griseus*), Gerbil (*Unguiculatus*), and other rodents (other *Rodentia*).
2. "Other mammal" includes other carnivores (other *Carnivora*) and other mammals (other *Mammalia*).

Table 11 Procedures and project licences by type of licensed establishment

Northern Ireland 2025

Type of licensed establishment	Number of project licences where countable procedures were completed in 2025 by number of procedures									Number of project licences where only non-countable procedures were completed in 2025[2]	Number of project licences where no procedures were completed in 2025[1]	Total number of project licences	Number of procedures	
	Number of procedures								Total				Total	% of total
	1 to 50	51 to 100	101 to 200	201 to 400	401 to 600	601 to 800	801 to 1,000	More than 1,000						
Public health laboratories	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Universities/medical schools	5	3	6	10	6	4	0	2	36	0	9	45	**11,859**	**59.1**
Government departments	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Other public bodies	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.0**
Non-profit-making organisations	4	3	1	2	2	0	0	1	13	0	11	24	**3,318**	**16.5**
Commercial organisations	4	0	2	2	2	0	0	1	11	0	1	12	**4,881**	**24.3**
Total	**13**	**6**	**9**	**14**	**10**	**4**	**0**	**4**	**60**	**0**	**21**	**81**	**20,058**	**100.0**

1. Procedures on adult or free-living animals (including neonatal and juvenile mammals, and newly hatched birds) are counted.
2. Details of procedures on immature forms (e.g. larvae, embryos, fish fry) are not counted unless they have reached the free-feeding stage (e.g. zebrafish fry from 5 days post-fertilisation and tadpoles).
Animals in the wild involved in rodenticide trials are also not counted. However, information is collected on the number of project licences which undertook rodenticide trials (0 returns in 2025).

Table 12 - Designated Establishments: 2015-2025

Number of designated places at 31 December 2025

Northern Ireland

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Scientific procedure establishments	4	4	4	4	4	4	5	5	4	4	4
Scientific procedure and breeding establishments	0	0	0	1	1	2	2	2	2	2	2
Scientific procedure breeding and supplying establishments	4	4	5	4	4	3	3	3	3	3	3
Scientific procedure and supplying establishments	0	0	0	0	0	0	0	0	0	0	0
Breeding and supplying establishments	1	1	1	1	0	0	0	0	0	0	0
Total designated places	**9**	**9**	**10**	**10**	**9**	**9**	**10**	**10**	**9**	**9**	**9**

Table 13 - Personal Licensees: 2015-2025

Number of personal licences at 31 December 2025

Northern Ireland

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
548	630	669	598	591	498	489	438	571	524	458

Appendix

General system of control under the Animals (Scientific Procedures) Act 1986

Introduction

1. The Animals (Scientific Procedures) Act 1986 put in place a rigorous system of controls on scientific work on living animals, including the need for the researcher, the project and the place of work to be separately licensed. Stringent safeguards on animal pain and suffering and general requirements to ensure the care and welfare of animals are established.

Scope of the Act

2. The Act controls any experimental or other scientific procedure applied to a 'protected animal' which may have the effect of causing that animal pain, suffering, distress or lasting harm. Such work is referred to in the Act as a 'regulated procedure'. 'Protected animals' are defined as all living vertebrate animals, except man, plus cephalopods. The definition extends to foetal, larval or embryonic forms that have reached specified stages in their development. Under the Act an animal is regarded as 'living' until "the permanent cessation of circulation or complete destruction of its brain". Procedures carried out on decerebrate animals are also subject to the controls of the Act.

3. The definition of a regulated procedure encompasses most breeding of animals with genetic defects; production of antisera and other blood products; the maintenance and passage of tumours and parasites; and the administration for a scientific purpose of an anaesthetic, analgesic, tranquilliser or other drug to dull perception. Killing an animal requires licence authority in certain circumstances.

The controls of ASPA, and therefore the statistics in the annual publication, exclude:

4. non-experimental agricultural practices

5. non-experimental clinical veterinary practices

6. practices undertaken for recognised animal husbandry

7. the administration of any substance or article to an animal for research purposes in accordance with an animal test certificate granted under the Veterinary Medicines Regulations 2013 Sect 3 (2) (b) (https://www.legislation.gov.uk/uksi/2013/2033/contents)

Project and Personal Licences

8. Two kinds of licence are required for all scientific work controlled by the Act. The procedures must be part of a programme of work authorised by a project licence and the person applying the regulated procedures must hold a personal licence. No work may be done unless the procedure and the animals used are specifically authorised in both project and personal licences. The place where the work is to be done must be specified in the project licence.

9. A project licence is granted when the Department of Health (hereinafter referred to as the Department) considers that the use of living animals in a programme of work, for a purpose permitted by the Act, is justified and the methods proposed appropriate (the most refined and likely to achieve the outcomes proposed).

10. In deciding whether and on what terms to authorise the project, the likely adverse effects on the animals used must be weighed against the benefit (to humans, other animals or the environment) which is likely to accrue from the work. Adequate consideration must also have been given to the feasibility of using alternative methods not involving living animals. The holder of a project licence undertakes overall responsibility for the scientific direction and control of the work and is responsible for making the statistical returns on which this publication is based. New project licence applicants are required to complete an accredited training course.

11. A personal licence is the Department's endorsement that the holder has been adequately trained to carry out specified procedures on specified animals, under supervision until deemed not necessary. Applicants must be over 18 and are required to give details of their qualifications, training and experience. Satisfactory completion of accredited training modules is required before a personal licence is considered. They need the endorsement of the named training and competency officer (see below) who has declared that they are suitable.

Establishment Licences

12. Except where otherwise authorised in a project licence (for example, for field work at a specified place), any place where work is carried out under the Act must be licensed. Establishments that breed certain types of animals listed in Schedule 2 of the Act for use in scientific procedures ('breeding establishments'), and establishments that obtain such animals from elsewhere and supply them to laboratories ('supplying establishments') must hold an appropriate licence to do so. Animals listed in Schedule 2 are: mice; rats; guinea pigs; hamsters; gerbils; rabbits; cats; dogs; primates; ferrets; pigs (if genetically modified); sheep (if genetically modified); common quail (Coturnix coturnix); amphibians (of the species Xenopus Laevis, Xenopus Tropicalis, Rana Temporaria and Rana Pipiens); and zebrafish.

13. Licensed establishments are required to appoint the following named persons:

- Named Animal Care and Welfare Officer (NACWO)
- Named Veterinary Surgeon (NVS)
- Named Training and Competence Officer (NTCO)
- Named Information Officer (NIO)
- Named Compliance Officer (NCO)

The Inspectorate

14. The Act creates a requirement for the Animals (Scientific Procedures) Inspectorate and describes the Inspectors' duties. Inspectors hold either medical or veterinary qualifications. Inspectors assess all applications for new licences or amendments to existing licences in detail and advise the Department on how to ensure that only properly justified work is licensed. When assessing research proposals, the Inspectorate ensures that full consideration is given to alternatives, the ***replacement*** of procedures with others which do not use animals, and also the ***reduction*** of the number of animals used and the ***refinement*** of procedures to minimise pain and suffering. These are known as the ***3Rs***. Inspectors carry out visits, mainly without notice, to establishments designated under the Act to inspect the premises and to ensure that the establishment's standards and controls are adequate. They determine compliance or otherwise with the terms and conditions of the licences issued under ASPA and report this to the Department, recommending action where required.

15. Inspectors also advise the Department on policy matters connected with the operation of the Act and they are available to give advice and assistance to licensees and other personnel working under the Act.

16. During 2025, the Inspectorate carried out 7 inspections of licensed establishments. All 7 inspections were carried out on site, with none carried out remotely or office-based. The total inspection time in 2025 was 31 hours, excluding travel time.

The Animals in Science Committee (ASC)

17. The Animals in Science Committee is an advisory non-departmental public body of the Home Office. The Animals in Science Committee was established by the Animals (Scientific Procedures) Act 1986 as amended to comply with Directive EU 2010/63/EU which came into force on 1st January 2013. Article 49 of this Directive requires each EU country to set up a National Committee for the Protection of Animals used for Scientific Purposes. In the UK the committee is known as the Animals in Science Committee and has superseded the Animal Procedures Committee.

18. The Animals in Science Committee is responsible for providing impartial, balanced and objective advice to the Home Office, the Department of Health and to animal welfare bodies on issues relating to the Animals (Scientific Procedures) Act 1986 as amended. (https://www.legislation.gov.uk/ukpga/1986/14/contents)

Guidance, Codes of Practice and Statistics

19. In addition to these annual statistics, the Act requires that there be published and laid before Parliament guidance on the operation of the controls of the Act and codes of practice as to the care and accommodation of animals and their use in regulated procedures. In addition, advice to facilitate understanding of the application of the Act and related policies are published from time to time. NI uses publications and advice notes on ASPA originating from Home Office. These can be found at the following link: https://www.health-ni.gov.uk/articles/animal-scientific-procedures

20. New Guidance for training and continuous professional development under the Animals (Scientific Procedures) Act 1986 was published in 2023. This can be found at the following link: https://www.health-ni.gov.uk/sites/default/files/publications/health/doh-aspa-guidance-training-cpd.pdf

Education and training

21. The Animals (Scientific Procedures) Act 1986 imposes clear responsibilities on persons with specific roles in relation to the care and use of animals in scientific procedures. These are elaborated further in the Home Office guidance on the operation of the Act published in March 2014 (https://www.gov.uk/government/publications/operation-of-aspa). As the roles differ, it follows that the education and training required before assuming these responsibilities will differ:

    - personal licence holders are responsible for the welfare of animals on which they carry out regulated procedures; applicants will be granted licences only if adequately trained to take on this responsibility and they will usually be required to work under supervision initially;

- project licences will be issued only to persons with appropriate qualifications to direct a programme of work which is well-justified and takes account of all reasonable possibilities for replacing animal procedures with alternatives which do not involve protected animals, reducing the number of animals used, and refining the procedures to reduce suffering;
- holders of establishment licences have responsibility not only for ensuring that the fabric and staffing of designated places are maintained to appropriate standards, but also for ensuring that reasonable steps are taken to prevent unauthorised procedures being carried out and that adequate training facilities are available for all animal users.

22. Animals (Scientific Procedures) Act 1986 as amended requires that staff are adequately trained to carry out procedures on animals; design procedures and projects; take care of or kill animals. All training programmes are accredited under a scheme recognised by the Department. Accreditation seeks to achieve common and high standards for licensee training.

Performance against legislative target

23. The licensing team works to specific legislative targets. New project licences should be considered and issued/refused within 40 working days from receipt of application, providing it is complete and correct. However, if the application involves a complex or multidisciplinary programme, the process may be extended by a further 15 working days with a clearance target of 55 working days.

24. In 2025, 93% of new project licences were issued within the legislative target of 40 working days: no new project licence applications required a 15 working day extension.

25. In 2025, the Department issued 15 new project licences, 16 amendment project licences and 52 personal licences.