

# 2010 Statistical Report on the use of Animals for Experimental and other Scientific purposes in Ireland.

## Licences and Certificates valid year ending 31 December 2010

### Licences by category:

|                     |     |
|---------------------|-----|
| Without Certificate | 37  |
| Certificate A       | 621 |
| Certificate B       | 604 |
| Certificate C       | 35  |
| Certificate D       | 1   |
| Certificate E       | 16  |
| Certificate EE      | 16  |
| Certificate F       | 36  |
| Certificate G       | 2   |

**Note:** If the licence is held alone without Certificate, the animal must be kept in anaesthesia throughout the whole of the experiment, and if the pain is likely to continue after the effect of the anaesthetic has ceased, or if any serious injury has been inflicted on the animal, it must be killed before the anaesthesia has passed off.

- Certificate A dispenses altogether from the obligation to use anaesthetic. It will be necessary in cases of simple inoculation calculated to give pain but not involving any surgical operation.
- Certificate B dispenses altogether from the obligation to kill the animal before the anaesthetic has passed off, it is necessary therefore whenever the initial operation is to be done under anaesthetics, but the animal is to be allowed to survive.
- Certificate C is necessary for experiments illustrating lectures.
- Certificate D is necessary where setting the animal free is necessary for the legitimate purposes of the experiment
- Certificate E is never held alone, but is necessary whenever an experiment is to be performed on a Dog or Cat under Certificate A.
- Certificate EE is never held alone, but is necessary whenever an experiment is to be performed on a Dog or Cat under Certificate B.
- Certificate F is necessary whenever an experiment is to be performed on a Horse, Ass or Mule.
- Certificate G is necessary where an experiment may require the animal to experience severe pain that is likely to be prolonged.

TABLE 1: NUMBER OF ANIMALS USED IN RELATION TO THEIR PLACE OF ORIGIN

| Origin versus species |   |                |  |   |  |                                       |                     |
|-----------------------|---|----------------|--|---|--|---------------------------------------|---------------------|
|                       | 1.1 Species   | 1.2 Total      | 1.3 Animals coming from registered breeding or supplying establishments within the reporting country | 1.4 Animals coming from elsewhere in the EC | 1.5 Animals coming from Member Countries of the Council of Europe which are parties to the Convention ETS 123 (excluding EC Member States) | 1.6 Animals coming from other origins | 1.7 Re-used animals |
| 1.a.                  | Mice ( <i>Mus musculus</i> )                        | 242,890        | 16,005   | 207,523                                     | 16,045   | 3,317                                 | 146                 |
| 1.b.                  | Rats ( <i>Rattus norvegicus</i> )                   | 14,437         | 2,568  | 10,319                                      | 1,550  | 0                                     | 336                 |
| 1.c.                  | Guinea-Pigs ( <i>Cavia porcellus</i> )              | 441            | 0  | 441   | 0  | 0                                     | 0                   |
| 1.d.                  | Hamsters ( <i>Mesocricetus</i> )                    | 0              |  |   |  |                                       |                     |
| 1.e.                  | Other Rodents (other <i>Rodentia</i> )              | 0              |  |   |  |                                       |                     |
| 1.f.                  | Rabbits ( <i>Oryctolagus cuniculus</i> )            | 932            | 16   | 898   | 18   | 0                                     | 522                 |
| 1.g.                  | Cats ( <i>Felis catus</i> )                         | 180            | 180  | 0   | 0  | 0                                     | 108                 |
| 1.h.                  | Dogs ( <i>Canis familiaris</i> )                    | 831            | 831  | 0   | 0  | 0                                     | 373                 |
| 1.i.                  | Ferrets ( <i>Mustela putorius furo</i> )            | 0              |  |   |  |                                       |                     |
| 1.j.                  | Other Carnivores (other <i>Carnivora</i> )          | 0              |  |   |  |                                       |                     |
| 1.k.                  | Horses, donkeys and cross breeds ( <i>Equidae</i> ) | 62             | 62   | 0   | 0  | 0                                     | 0                   |
| 1.l.                  | Pigs ( <i>Sus</i> )                                 | 755            | 748  | 0   | 0  | 7                                     | 0                   |
| 1.m.                  | Goats ( <i>Capra</i> )                              | 5              | 5  | 0   | 0  | 0                                     | 0                   |
| 1.n.                  | Sheep ( <i>Ovis</i> )                               | 11             | 11   | 0   | 0  | 0                                     | 0                   |
| 1.o.                  | Cattle ( <i>Bos</i> )                               | 2,672          | 2,662  | 10  | 0  | 0                                     | 140                 |
| 1.p.                  | Prosimians ( <i>Prosimia</i> )                      | 0              |  |   |  |                                       |                     |
| 1.q.                  | New World Monkey ( <i>Ceboidea</i> )                | 0              |  |   |  |                                       |                     |
| 1.r.                  | Old World Monkeys ( <i>Cercopithecoidea</i> )       | 0              |  |   |  |                                       |                     |
| 1.s.                  | Apes ( <i>Hominoidea</i> )                          | 0              |  |   |  |                                       |                     |
| 1.t.                  | Other Mammals (other <i>Mammalia</i> )              | 669            | 0  | 0   | 0  | 669                                   | 112                 |
| 1.u.                  | Quail ( <i>Coturnix coturnix</i> )                  | 0              |  |   |  |                                       |                     |
| 1.v.                  | Other birds (other <i>Aves</i> )                    | 333            | 313  | 20  | 0  | 0                                     | 0                   |
| 1.w.                  | Reptiles ( <i>Reptilia</i> )                        | 0              |  |   |  |                                       |                     |
| 1.x.                  | Amphibians ( <i>Amphibia</i> )                      | 13             | 0  | 13  | 0  | 0                                     | 0                   |
| 1.y.                  | Fish ( <i>Pisces</i> )                              | 15,378         | 727  | 14,641                                      | 0  | 10                                    | 0                   |
| 1.z.                  | <b>TOTAL</b>  | <b>279,609</b> | <b>24,128</b>  | <b>233,865</b>                              | <b>17,613</b>  | <b>4,003</b>                          | <b>1,737</b>        |

**TABLE 2: NUMBER OF ANIMALS USED IN EXPERIMENTS FOR SELECTED PURPOSES**

| Purpose versus species |                                  |  |   |   |  |  |                          |                            |               |                |
|------------------------|----------------------------------|--|---|---|--|--|--------------------------|----------------------------|---------------|----------------|
|                        | 2.1 Species                      | 2.2 Biological studies of a fundamental nature | 2.3 Research and development of products and devices for human medicine and dentistry and for veterinary medicine(excluding toxicological and other safety evaluations counted in column 2.6) | 2.4 Production and quality control of products and devices for human medicine and dentistry | 2.5 Production and quality control of products and devices for veterinary medicine | 2.6 Toxicological and other safety evaluations (including safety evaluation of products and devices for human medicine and dentistry and for veterinary medicine | 2.7 Diagnosis of disease | 2.8 Education and training | 2.9 Other     | 2.10 Total     |
| 2.a.                   | Mice                             | 20,528   | 17,719  | 164   | 0  | 204,065  | 12                       | 0                          | 402           | <b>242,890</b> |
| 2.b.                   | Rats                             | 5,759  | 1,784   | 92  | 0  | 6,640  | 127                      | 35                         | 0             | <b>14,437</b>  |
| 2.c.                   | Guinea-Pigs                      | 34   | 0   | 0   | 0  | 407  | 0                        | 0                          | 0             | <b>441</b>     |
| 2.d.                   | Hamsters                         |  |   |   |  |  |                          |                            |               | <b>0</b>       |
| 2.e.                   | Other Rodents                    |  |   |   |  |  |                          |                            |               | <b>0</b>       |
| 2.f.                   | Rabbits                          | 51   | 50  | 100   | 0  | 728  | 3                        | 0                          | 0             | <b>932</b>     |
| 2.g.                   | Cats                             | 0  | 108   | 0   | 0  | 72   | 0                        | 0                          | 0             | <b>180</b>     |
| 2.h.                   | Dogs                             | 0  | 671   | 0   | 0  | 160  | 0                        | 0                          | 0             | <b>831</b>     |
| 2.i.                   | Ferrets                          |  |   |   |  |  |                          |                            |               | <b>0</b>       |
| 2.j.                   | Other Carnivores                 |  |   |   |  |  |                          |                            |               | <b>0</b>       |
| 2.k.                   | Horses, donkeys and cross breeds | 6  | 0   | 56  | 0  | 0  | 0                        | 0                          | 0             | <b>62</b>      |
| 2.l.                   | Pigs                             | 286  | 44  | 0   | 0  | 75   | 0                        | 4                          | 346           | <b>755</b>     |
| 2.m.                   | Goats                            | 0  | 0   | 0   | 0  | 0  | 0                        | 5                          | 0             | <b>5</b>       |
| 2.n.                   | Sheep                            | 0  | 2   | 0   | 0  | 0  | 0                        | 5                          | 4             | <b>11</b>      |
| 2.o.                   | Cattle                           | 329  | 24  | 106   | 0  | 0  | 1,372                    | 60                         | 781           | <b>2,672</b>   |
| 2.p.                   | Prosimians                       |  |   |   |  |  |                          |                            |               | <b>0</b>       |
| 2.q.                   | New World Monkeys                |  |   |   |  |  |                          |                            |               | <b>0</b>       |
| 2.r.                   | Old World Monkeys                |  |   |   |  |  |                          |                            |               | <b>0</b>       |
| 2.s.                   | Apes                             |  |   |   |  |  |                          |                            |               | <b>0</b>       |
| 2.t.                   | Other Mammals                    | 0  | 669   | 0   | 0  | 0  | 0                        | 0                          | 0             | <b>669</b>     |
| 2.u.                   | Quail                            |  |   |   |  |  |                          |                            |               | <b>0</b>       |
| 2.v.                   | Other birds                      | 1  | 128   | 0   | 0  | 0  | 154                      | 0                          | 50            | <b>333</b>     |
| 2.w.                   | Reptiles                         |  |   |   |  |  |                          |                            |               | <b>0</b>       |
| 2.x.                   | Amphibians                       | 13   | 0   | 0   | 0  | 0  | 0                        | 0                          | 0             | <b>13</b>      |
| 2.y.                   | Fish                             | 737  | 0   | 0   | 0  | 0  | 0                        | 0                          | 14,641        | <b>15,378</b>  |
| <b>2.z.</b>            | <b>TOTAL</b>                     | <b>27,744</b>                                  | <b>21,199</b>   | <b>518</b>  | <b>0</b>   | <b>212,147</b>   | <b>1,668</b>             | <b>109</b>                 | <b>16,224</b> | <b>279,609</b> |

**TABLE 3: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATION**

| Products versus species |                                  |  |  |   |  |  |  |   |  |  |                |
|-------------------------|----------------------------------|--|--|---|--|--|--|---|--|--|----------------|
| 3.1 Species             |                                  | 3.2 Products/ substances or devices for human medicine and dentistry and for veterinary medicine | 3.3 Products/ substances used or intended to be used mainly in agriculture | 3.4 Products/ substances used or intended to be used mainly in industry | 3.5 Products/ substances used or intended to be used mainly in the household | 3.6 Products/ substances used or intended to be used mainly as cosmetics or toiletries | 3.7 Products/ substances used or intended to be used mainly as additives in food for human consumption | 3.8 Products/ substances used or intended to be used mainly as additives in food for animal consumption | 3.9 Potential or actual contaminants in the general environment which do not appear in other columns | 3.10 Other toxicological or safety evaluations | 3.11 Total     |
| 3.a.                    | Mice                             | 199,622  | 0  | 0   | 0  | 0  | 0  | 0   | 0  | 4,443  | 204,065        |
| 3.b.                    | Rats                             | 6,640  | 0  | 0   | 0  | 0  | 0  | 0   | 0  | 0  | 6,640          |
| 3.c.                    | Guinea-Pigs                      | 407  | 0  | 0   | 0  | 0  | 0  | 0   | 0  | 0  | 407            |
| 3.d.                    | Hamsters                         |  |  |   |  |  |  |   |  |  | 0              |
| 3.e.                    | Other Rodents                    |  |  |   |  |  |  |   |  |  | 0              |
| 3.f.                    | Rabbits                          | 728  | 0  | 0   | 0  | 0  | 0  | 0   | 0  | 0  | 728            |
| 3.g.                    | Cats                             | 72   | 0  | 0   | 0  | 0  | 0  | 0   | 0  | 0  | 72             |
| 3.h.                    | Dogs                             | 160  | 0  | 0   | 0  | 0  | 0  | 0   | 0  | 0  | 160            |
| 3.i.                    | Ferrets                          |  |  |   |  |  |  |   |  |  | 0              |
| 3.j.                    | Other Carnivores                 |  |  |   |  |  |  |   |  |  | 0              |
| 3.k.                    | Horses, donkeys and cross breeds |  |  |   |  |  |  |   |  |  | 0              |
| 3.l.                    | Pigs                             | 0  | 0  | 0   | 0  | 0  | 0  | 0   | 0  | 75   | 75             |
| 3.m.                    | Goats                            |  |  |   |  |  |  |   |  |  | 0              |
| 3.n.                    | Sheep                            |  |  |   |  |  |  |   |  |  | 0              |
| 3.o.                    | Cattle                           |  |  |   |  |  |  |   |  |  | 0              |
| 3.p.                    | Prosimians                       |  |  |   |  |  |  |   |  |  | 0              |
| 3.q.                    | New World Monkeys                |  |  |   |  |  |  |   |  |  | 0              |
| 3.r.                    | Old World Monkeys                |  |  |   |  |  |  |   |  |  | 0              |
| 3.s.                    | Apes                             |  |  |   |  |  |  |   |  |  | 0              |
| 3.t.                    | Other Mammals                    |  |  |   |  |  |  |   |  |  | 0              |
| 3.u.                    | Quail                            |  |  |   |  |  |  |   |  |  | 0              |
| 3.v.                    | Other birds                      |  |  |   |  |  |  |   |  |  | 0              |
| 3.w.                    | Reptiles                         |  |  |   |  |  |  |   |  |  | 0              |
| 3.x.                    | Amphibians                       |  |  |   |  |  |  |   |  |  | 0              |
| 3.y.                    | Fish                             |  |  |   |  |  |  |   |  |  | 0              |
| <b>3.z.</b>             | <b>TOTAL</b>                     | <b>207,629</b>   | <b>0</b>   | <b>0</b>  | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>  | <b>0</b>   | <b>4,518</b>                                   | <b>212,147</b> |

**TABLE 4: NUMBER OF ANIMALS USED IN EXPERIMENTS FOR STUDIES ON HUMAN AND ANIMAL DISEASES**

| <b>Main categories versus species</b> |  |   |  |                                 |  |                  |
|---------------------------------------|--|---|--|---------------------------------|--|------------------|
| <b>4.1 Species</b>                    | <b>4.2 Human cardiovascular diseases</b> | <b>4.3 Human nervous and mental disorders</b> | <b>4.4 Human cancer (excluding evaluations of carcinogenic hazards or risks)</b> | <b>4.5 Other human diseases</b> | <b>4.6 Studies specific to animal diseases</b> | <b>4.7 Total</b> |
| 4.a. Mice                             | 619                                      | 20,696  | 2,973  | 13,889                          | 82   | <b>38,259</b>    |
| 4.b. Rats                             | 569                                      | 5,435   | 0  | 1,478                           | 188  | <b>7,670</b>     |
| 4.c. Guinea-Pigs                      | 0  | 0   | 0  | 0                               | 34   | <b>34</b>        |
| 4.d. Hamsters                         |  |   |  |                                 |  | <b>0</b>         |
| 4.e. Other Rodents                    |  |   |  |                                 |  | <b>0</b>         |
| 4.f. Rabbits                          | 24                                       | 0   | 0  | 77                              | 3  | <b>104</b>       |
| 4.g. Cats                             | 0  | 0   | 0  | 0                               | 108  | <b>108</b>       |
| 4.h. Dogs                             | 0  | 0   | 0  | 0                               | 671  | <b>671</b>       |
| 4.i. Ferrets                          |  |   |  |                                 |  | <b>0</b>         |
| 4.j. Other Carnivores                 |  |   |  |                                 |  | <b>0</b>         |
| 4.k. Horses, donkeys and cross breeds | 0  | 0   | 0  | 0                               | 6  | <b>6</b>         |
| 4.l. Pigs                             | 136                                      | 0   | 0  | 2                               | 192  | <b>330</b>       |
| 4.m. Goats                            |  |   |  |                                 |  | <b>0</b>         |
| 4.n. Sheep                            | 2  | 0   | 0  | 0                               | 0  | <b>2</b>         |
| 4.o. Cattle                           | 0  | 0   | 0  | 0                               | 1,725  | <b>1,725</b>     |
| 4.p. Prosimians                       |  |   |  |                                 |  | <b>0</b>         |
| 4.q. New World Monkeys                |  |   |  |                                 |  | <b>0</b>         |
| 4.r. Old World Monkeys                |  |   |  |                                 |  | <b>0</b>         |
| 4.s. Apes                             |  |   |  |                                 |  | <b>0</b>         |
| 4.t. Other Mammals                    | 0  | 0   | 0  | 0                               | 669  | <b>669</b>       |
| 4.u. Quail                            |  |   |  |                                 |  | <b>0</b>         |
| 4.v. Other birds                      | 0  | 0   | 0  | 1                               | 282  | <b>283</b>       |
| 4.w. Reptiles                         |  |   |  |                                 |  | <b>0</b>         |
| 4.x. Amphibians                       | 0  | 0   | 0  | 0                               | 13   | <b>13</b>        |
| 4.y. Fish                             | 0  | 0   | 0  | 0                               | 737  | <b>737</b>       |
| 4.z. TOTAL                            | <b>1,350</b>                             | <b>26,131</b>                                 | <b>2,973</b>   | <b>15,447</b>                   | <b>4,710</b>                                   | <b>50,611</b>    |

**TABLE 5: NUMBER OF ANIMALS USED IN PRODUCTION AND QUALITY CONTROL OF PRODUCTS AND DEVICES FOR HUMAN MEDICINE AND DENTISTRY AND FOR VETERINARY MEDICINE**

| Regulatory requirements versus species |  |  |   |                       |   |                                |           |
|--|--|--|---|-----------------------|---|--------------------------------|-----------|
| 5.1 Species                            | 5.2 National legislation specific to a single EC Member State <sup>1</sup> | 5.3 EC legislation including European Pharmacopoeia (requirements) | 5.4 Member Country of Council of Europe (but not EC) legislation <sup>2</sup> | 5.5 Other legislation | 5.6 Any combination of 5.2/ 5.3/ 5.4/ 5.5 | 5.7 No regulatory requirements | 5.8 Total |
| 5.a. Mice                              | 164  | 0  | 0   | 0                     | 0   | 0                              | 164       |
| 5.b. Rats                              | 92   | 0  | 0   | 0                     | 0   | 0                              | 92        |
| 5.c. Guinea-Pigs                       |  |  |   |                       |   |                                | 0         |
| 5.d. Hamsters                          |  |  |   |                       |   |                                | 0         |
| 5.e. Other Rodents                     |  |  |   |                       |   |                                | 0         |
| 5.f. Rabbits                           | 100  | 0  | 0   | 0                     | 0   | 0                              | 100       |
| 5.g. Cats                              |  |  |   |                       |   |                                | 0         |
| 5.h. Dogs                              |  |  |   |                       |   |                                | 0         |
| 5.i. Ferrets                           |  |  |   |                       |   |                                | 0         |
| 5.j. Other Carnivores                  |  |  |   |                       |   |                                | 0         |
| 5.k. Horses, donkeys and cross breeds  | 0  | 56   | 0   | 0                     | 0   | 0                              | 56        |
| 5.l. Pigs                              |  |  |   |                       |   |                                | 0         |
| 5.m. Goats                             |  |  |   |                       |   |                                | 0         |
| 5.n. Sheep                             |  |  |   |                       |   |                                | 0         |
| 5.o. Cattle                            | 0  | 106  | 0   | 0                     | 0   | 0                              | 106       |
| 5.p. Prosimians                        |  |  |   |                       |   |                                | 0         |
| 5.q. New World Monkeys                 |  |  |   |                       |   |                                | 0         |
| 5.r. Old World Monkeys                 |  |  |   |                       |   |                                | 0         |
| 5.s. Apes                              |  |  |   |                       |   |                                | 0         |
| 5.t. Other Mammals                     |  |  |   |                       |   |                                | 0         |
| 5.u. Quail                             |  |  |   |                       |   |                                | 0         |
| 5.v. Other birds                       |  |  |   |                       |   |                                | 0         |
| 5.w. Reptiles                          |  |  |   |                       |   |                                | 0         |
| 5.x. Amphibians                        |  |  |   |                       |   |                                | 0         |
| 5.y. Fish                              |  |  |   |                       |   |                                | 0         |
| 5.z. TOTAL                             | 356  | 162  | 0   | 0                     | 0   | 0                              | 518       |

**TABLE 6: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS**

| Regulatory requirements versus species |                                  |  |  |   |                       |   |                                |                |
|--|----------------------------------|--|--|---|-----------------------|---|--------------------------------|----------------|
| 6.1 Species                            |                                  | 6.2 National legislation specific to a single EC Member State(1) | 6.3 EC legislation including European Pharmacopoeia (requirements) | 6.4 Member Country of Council of Europe (but not EC) legislation(2) | 6.5 Other legislation | 6.6 Any combination of 5.2/ 5.3/ 5.4/ 5.5 | 6.7 No regulatory requirements | 6.8 Total      |
| 6.a.                                   | Mice                             | 1,466  | 2,977  | 0   | 0                     | 199,612                                   | 10                             | <b>204,065</b> |
| 6.b.                                   | Rats                             | 8  | 0  | 0   | 0                     | 6,632                                     | 0                              | <b>6,640</b>   |
| 6.c.                                   | Guinea-Pigs                      | 0  | 0  | 0   | 0                     | 407                                       | 0                              | <b>407</b>     |
| 6.d.                                   | Hamsters                         |  |  |   |                       |   |                                | <b>0</b>       |
| 6.e.                                   | Other Rodents                    |  |  |   |                       |   |                                | <b>0</b>       |
| 6.f.                                   | Rabbits                          | 0  | 0  | 0   | 0                     | 728                                       | 0                              | <b>728</b>     |
| 6.g.                                   | Cats                             | 72   | 0  | 0   | 0                     | 0   | 0                              | <b>72</b>      |
| 6.h.                                   | Dogs                             | 160  | 0  | 0   | 0                     | 0   | 0                              | <b>160</b>     |
| 6.i.                                   | Ferrets                          |  |  |   |                       |   |                                | <b>0</b>       |
| 6.j.                                   | Other Carnivores                 |  |  |   |                       |   |                                | <b>0</b>       |
| 6.k.                                   | Horses, donkeys and cross breeds |  |  |   |                       |   |                                | <b>0</b>       |
| 6.l.                                   | Pigs                             | 0  | 75   | 0   | 0                     | 0   | 0                              | <b>75</b>      |
| 6.m.                                   | Goats                            |  |  |   |                       |   |                                | <b>0</b>       |
| 6.n.                                   | Sheep                            |  |  |   |                       |   |                                | <b>0</b>       |
| 6.o.                                   | Cattle                           |  |  |   |                       |   |                                | <b>0</b>       |
| 6.p.                                   | Prosimians                       |  |  |   |                       |   |                                | <b>0</b>       |
| 6.q.                                   | New World Monkeys                |  |  |   |                       |   |                                | <b>0</b>       |
| 6.r.                                   | Old World Monkeys                |  |  |   |                       |   |                                | <b>0</b>       |
| 6.s.                                   | Apes                             |  |  |   |                       |   |                                | <b>0</b>       |
| 6.t.                                   | Other Mammals                    |  |  |   |                       |   |                                | <b>0</b>       |
| 6.u.                                   | Quail                            |  |  |   |                       |   |                                | <b>0</b>       |
| 6.v.                                   | Other birds                      |  |  |   |                       |   |                                | <b>0</b>       |
| 6.w.                                   | Reptiles                         |  |  |   |                       |   |                                | <b>0</b>       |
| 6.x.                                   | Amphibians                       |  |  |   |                       |   |                                | <b>0</b>       |
| 6.y.                                   | Fish                             |  |  |   |                       |   |                                | <b>0</b>       |
| 6.z.                                   | <b>TOTAL</b>                     | <b>1,706</b>   | <b>3,052</b>   | <b>0</b>  | <b>0</b>              | <b>207,379</b>                            | <b>10</b>                      | <b>212,147</b> |

TABLE 7: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS

| Types of tests versus species |                                  |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               |                |
|-------------------------------|----------------------------------|---|----------------------------|---|---------------------|------------------------|--------------------|--------------------------------------|---------------------|----------------------------|------------------|----------------------------|--|---------------|----------------|
|                               | 7.1. Species                     | 7.2 Acute and sub-acute toxicity testing methods (including limit test) |                            |   | 7.3 Skin irritation | 7.4 Skin sensitisation | 7.5 Eye irritation | 7.6 Sub-chronic and chronic toxicity | 7.7 Carcinogenicity | 7.8 Developmental toxicity | 7.9 Mutagenicity | 7.10 Reproductive toxicity | 7.11 Toxicity to aquatic vertebrates not included in other columns | 7.12 Other    | 7.13 Total     |
|                               |                                  | 7.2.1. LD50, LC50   | 7.2.2 Other lethal methods | 7.2.3 Non lethal clinical signs methods |                     |                        |                    |                                      |                     |                            |                  |                            |  |               |                |
| 7.a.                          | Mice                             | 113,080   | 2,977                      | 0                                       | 0                   | 0                      | 0                  | 0                                    | 0                   | 0                          | 0                | 0                          | 0  | 88,008        | 204,065        |
| 7.b.                          | Rats                             | 0   | 0                          | 0                                       | 0                   | 0                      | 8                  | 0                                    | 0                   | 0                          | 0                | 0                          | 0  | 6,632         | 6,640          |
| 7.c.                          | Guinea-Pigs                      | 0   | 0                          | 0                                       | 0                   | 0                      | 0                  | 0                                    | 0                   | 0                          | 0                | 0                          | 0  | 407           | 407            |
| 7.d.                          | Hamsters                         |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.e.                          | Other Rodents                    |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.f.                          | Rabbits                          | 0   | 0                          | 0                                       | 0                   | 0                      | 0                  | 0                                    | 0                   | 0                          | 0                | 0                          | 0  | 728           | 728            |
| 7.g.                          | Cats                             | 0   | 0                          | 0                                       | 0                   | 0                      | 0                  | 0                                    | 0                   | 0                          | 0                | 0                          | 0  | 72            | 72             |
| 7.h.                          | Dogs                             | 0   | 0                          | 0                                       | 0                   | 0                      | 0                  | 0                                    | 0                   | 0                          | 0                | 0                          | 0  | 160           | 160            |
| 7.i.                          | Ferrets                          |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.j.                          | Other Carnivores                 |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.k.                          | Horses, donkeys and cross breeds |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.l.                          | Pigs                             | 0   | 0                          | 0                                       | 0                   | 0                      | 0                  | 0                                    | 0                   | 0                          | 0                | 0                          | 0  | 75            | 75             |
| 7.m.                          | Goats                            |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.n.                          | Sheep                            |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.o.                          | Cattle                           |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.p.                          | Prosimians                       |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.q.                          | New World Monkeys                |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.r.                          | Old World Monkeys                |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.s.                          | Apes                             |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.t.                          | Other Mammals                    |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.u.                          | Quail                            |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.v.                          | Other birds                      |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.w.                          | Reptiles                         |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.x.                          | Amphibians                       |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.y.                          | Fish                             |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 7.z.                          | <b>TOTAL</b>                     | <b>113,080</b>  | <b>2,977</b>               | <b>0</b>                                | <b>0</b>            | <b>0</b>               | <b>0</b>           | <b>8</b>                             | <b>0</b>            | <b>0</b>                   | <b>0</b>         | <b>0</b>                   | <b>0</b>   | <b>96,082</b> | <b>212,147</b> |



**TABLE 8: NUMBER OF ANIMALS USED IN TOXICOLOGICAL AND OTHER SAFETY EVALUATIONS**

| Types of tests versus products   |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               |                |
|--|---|----------------------------|---|---------------------|------------------------|--------------------|--------------------------------------|---------------------|----------------------------|------------------|----------------------------|--|---------------|----------------|
| 8.1. Products  | 8.2 Acute and sub-acute toxicity testing methods (including limit test) |                            |   | 8.3 Skin irritation | 8.4 Skin sensitization | 8.5 Eye irritation | 8.6 Sub-chronic and chronic toxicity | 8.7 Carcinogenicity | 8.8 Developmental toxicity | 8.9 Mutagenicity | 8.10 Reproductive toxicity | 8.11 Toxicity to aquatic vertebrates not included in other columns | 8.12 Other    | 8.13 Total     |
|  | 8.2.1. LD50, LC50   | 8.2.2 Other lethal methods | 8.2.3 Non lethal clinical signs methods |                     |                        |                    |                                      |                     |                            |                  |                            |  |               |                |
| 8.a. Products/ substances or devices for human medicine and dentistry and for veterinary medicine        | 34  |                            |   |                     |                        |                    | 8                                    |                     |                            |                  |                            |  | 307           | 349            |
| 8.b. Products/ substances used or intended to be used mainly in agriculture                              |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 8.c. Products/ substances used or intended to be used mainly in industry                                 |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 8.d. Products/ substances used or intended to be used mainly in the household                            |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 8.e. Products/ substances used or intended to be used mainly as cosmetics or toiletries                  |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 8.f. Products/ substances used or intended to be used mainly as additives in food for human consumption  |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 8.g. Products/ substances used or intended to be used mainly as additives in food for animal consumption |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 8.h. Potential or actual contaminants in the general environment which do not appear in other columns    |   |                            |   |                     |                        |                    |                                      |                     |                            |                  |                            |  |               | 0              |
| 8.i. Other toxicological or safety evaluations   | 113,046   | 2,977                      |   |                     |                        |                    |                                      |                     |                            |                  |                            |  | 95,775        | 211,798        |
| <b>8.j. TOTAL</b>  | <b>113,080</b>  | <b>2,977</b>               | <b>0</b>                                | <b>0</b>            | <b>0</b>               | <b>0</b>           | <b>8</b>                             | <b>0</b>            | <b>0</b>                   | <b>0</b>         | <b>0</b>                   | <b>0</b>   | <b>96,082</b> | <b>212,147</b> |

**TABLE 9: NUMBER OF ANIMALS USED IN RELATION TO CERTIFICATES GRANTED**

| Origin versus species                 |                                     |                                  |  |                                    |                |
|---------------------------------------|-------------------------------------|----------------------------------|--|------------------------------------|----------------|
| 9.1 Species                           | 9.2 With anaesthesia (Licence only) | 9.3 With anaesthesia (Licence A) | 9.4 With anaesthesia but with permitted recovery (Certificate B) | 9.5 Demonstrations (Certificate C) | 9.6 Total      |
| 9.a. Mice                             | 14,969                              | 222,749                          | 5,172  | 0                                  | 242,890        |
| 9.b. Rats                             | 8,881                               | 3,211                            | 2,345  | 8                                  | 14,437         |
| 9.c. Guinea-Pigs                      | 0                                   | 441                              | 0  | 0                                  | 441            |
| 9.d. Hamsters                         |                                     |                                  |  |                                    | 0              |
| 9.e. Other Rodents                    |                                     |                                  |  |                                    | 0              |
| 9.f. Rabbits                          | 139                                 | 711                              | 82   | 0                                  | 932            |
| 9.g. Cats                             | 0                                   | 180                              | 0  | 0                                  | 180            |
| 9.h. Dogs                             | 0                                   | 791                              | 40   | 0                                  | 831            |
| 9.i. Ferrets                          |                                     |                                  |  |                                    | 0              |
| 9.j. Other Carnivores                 |                                     |                                  |  |                                    | 0              |
| 9.k. Horses, donkeys and cross breeds | 0                                   | 62                               | 0  | 0                                  | 62             |
| 9.l. Pigs                             | 107                                 | 613                              | 35   | 0                                  | 755            |
| 9.m. Goats                            | 5                                   | 0                                | 0  | 0                                  | 5              |
| 9.n. Sheep                            | 11                                  | 0                                | 0  | 0                                  | 11             |
| 9.o. Cattle                           | 84                                  | 2,500                            | 88   | 0                                  | 2,672          |
| 9.p. Prosimians                       |                                     |                                  |  |                                    | 0              |
| 9.q. New World Monkeys                |                                     |                                  |  |                                    | 0              |
| 9.r. Old World Monkeys                |                                     |                                  |  |                                    | 0              |
| 9.s. Apes                             |                                     |                                  |  |                                    | 0              |
| 9.t. Other Mammals                    | 0                                   | 0                                | 669  | 0                                  | 669            |
| 9.u. Quail                            |                                     |                                  |  |                                    | 0              |
| 9.v. Other birds                      | 4                                   | 329                              | 0  | 0                                  | 333            |
| 9.w. Reptiles                         |                                     |                                  |  |                                    | 0              |
| 9.x. Amphibians                       | 0                                   | 13                               | 0  | 0                                  | 13             |
| 9.y. Fish                             | 14,641                              | 737                              | 0  | 0                                  | 15,378         |
| <b>9.z. TOTAL</b>                     | <b>38,841</b>                       | <b>232,337</b>                   | <b>8,431</b>   | <b>8</b>                           | <b>279,609</b> |

**TABLE 10: GENETIC STATUS**

|             | 10.1 Species | 10.2 With genetic defect | 10.3 Trangenic | 10.4 Total   |
|-------------|--------------|--------------------------|----------------|--------------|
| 10.a        | Mice         | 2,632                    | 6,601          | <b>9,233</b> |
| 10.b        | Rats         | 0                        | 40             | <b>40</b>    |
| <b>10.d</b> | <b>Total</b> | <b>2,632</b>             | <b>6,641</b>   | <b>9,273</b> |

**TABLE 11: NUMBER OF ANIMALS USED BY CATEGORY OF USER ESTABLISHMENT**

| <b>Laboratory Versus Species</b>       |   |                       |  |   |                                       |                   |
|--|---|-----------------------|--|---|---------------------------------------|-------------------|
| <b>11.1 Species</b>                    | <b>11.2 Universities &amp; Colleges</b> | <b>11.3 Hospitals</b> | <b>11.4 Agriculture and veterinary research institutes</b> | <b>11.5 Fisheries research institutes and farms</b> | <b>11.6 Commercial establishments</b> | <b>11.7 Total</b> |
| 11.a. Mice                             | 23,799                                  |                       | 16   | 2,977   | 216,098                               | <b>242,890</b>    |
| 11.b. Rats                             | 6,653                                   | 42                    |  |   | 7,742                                 | <b>14,437</b>     |
| 11.c. Guinea-Pigs                      | 34                                      |                       |  |   | 407                                   | <b>441</b>        |
| 11.d. Hamsters                         |   |                       |  |   |                                       | <b>0</b>          |
| 11.e. Other Rodents                    |   |                       |  |   |                                       | <b>0</b>          |
| 11.f. Rabbits                          | 162                                     | 24                    |  |   | 746                                   | <b>932</b>        |
| 11.g. Cats                             | 0                                       |                       |  |   | 180                                   | <b>180</b>        |
| 11.h. Dogs                             | 0                                       |                       | 134  |   | 697                                   | <b>831</b>        |
| 11.i. Ferrets                          |   |                       |  |   |                                       | <b>0</b>          |
| 11.j. Other Carnivores                 |   |                       |  |   |                                       | <b>0</b>          |
| 11.k. Horses, donkeys and cross breeds | 6                                       |                       |  |   | 56                                    | <b>62</b>         |
| 11.l. Pigs                             | 61                                      | 43                    | 613  |   | 38                                    | <b>755</b>        |
| 11.m. Goats                            |   | 5                     |  |   |                                       | <b>5</b>          |
| 11.n. Sheep                            |   | 7                     | 4  |   |                                       | <b>11</b>         |
| 11.o. Cattle                           | 28                                      |                       | 2,538  |   | 106                                   | <b>2,672</b>      |
| 11.p. Prosimians                       |   |                       |  |   |                                       | <b>0</b>          |
| 11.q. New World Monkeys                |   |                       |  |   |                                       | <b>0</b>          |
| 11.r. Old World Monkeys                |   |                       |  |   |                                       | <b>0</b>          |
| 11.s. Apes                             |   |                       |  |   |                                       | <b>0</b>          |
| 11.t. Other Mammals                    |   |                       | 669  |   |                                       | <b>669</b>        |
| 11.u. Quail                            |   |                       |  |   |                                       | <b>0</b>          |
| 11.v. Other birds                      | 55                                      |                       | 278  |   |                                       | <b>333</b>        |
| 11.w. Reptiles                         |   |                       |  |   |                                       | <b>0</b>          |
| 11.x. Amphibians                       | 13                                      |                       |  |   |                                       | <b>13</b>         |
| 11.y. Fish                             | 737                                     |                       |  | 14,641  |                                       | <b>15,378</b>     |
| <b>11.z. TOTAL</b>                     | <b>31,548</b>                           | <b>121</b>            | <b>4,252</b>   | <b>17,618</b>                                       | <b>226,070</b>                        | <b>279,609</b>    |

**TABLE 12: THE NUMBER OF SPECIES OF LIVE ANIMALS USED IN SCIENTIFIC PROCEDURES IN THE YEARS 2005-2010**

| <b>SPECIES</b>                | <b>2005</b>   | <b>2006</b>   | <b>2007</b>   | <b>2008</b>    | <b>2009</b>    | <b>2010</b>    |
|-------------------------------|---------------|---------------|---------------|----------------|----------------|----------------|
| MICE                          | 17,776        | 21,152        | 26,111        | 71,224         | 209,903        | 242890         |
| RATS                          | 7,722         | 10,314        | 12,792        | 11,741         | 16,198         | 14437          |
| GUINEA PIGS                   | 4             | 25            | 5             | 91             | 477            | 441            |
| HAMSTERS                      | 0             | 60            | 55            | 68             | 0              | 0              |
| OTHER RODENTS                 | 0             | 0             | 0             | 0              | 0              | 0              |
| RABBITS                       | 379           | 101           | 43            | 204            | 138            | 932            |
| CATS                          | 119           | 169           | 421           | 295            | 653            | 180            |
| DOGS                          | 167           | 297           | 477           | 557            | 202            | 831            |
| FERRETS                       | 0             | 4             | 0             | 0              | 0              | 0              |
| HORSES, DONKEYS & CROSSBREEDS | 189           | 182           | 153           | 144            | 40             | 62             |
| PIGS                          | 382           | 189           | 190           | 224            | 325            | 755            |
| GOATS                         | 0             | 0             | 22            | 0              | 0              | 5              |
| SHEEP                         | 601           | 331           | 370           | 456            | 24             | 11             |
| CATTLE                        | 2,109         | 4,689         | 2,152         | 4,019          | 1,326          | 2672           |
| OTHER MAMMALS                 | 48            | 61            | 38            | 32             | 389            | 669            |
| BIRDS                         | 2,024         | 69            | 1,016         | 582            | 345            | 333            |
| AMPHIBIANS                    | 0             | 0             | 14            | 0              | 0              | 13             |
| FISH                          | 6,420         | 36,151        | 20,519        | 23,198         | 19,186         | 15,378         |
| <b>TOTAL</b>                  | <b>37,940</b> | <b>73,794</b> | <b>64,378</b> | <b>112,835</b> | <b>249,206</b> | <b>279,609</b> |