

# Chapter

# 2

The context of  
animal research:  
past and present





# The context of animal research: past and present

## Introduction

2.1 This chapter concerns scientific, ethical and legal developments from a historical and contemporary perspective. We describe changes in public policy and public opinion and different forms of protests against animal research. We also consider the emergence of the concept of the Three Rs (Refinement, Reduction and Replacement; see Chapters 11 and 12), stakeholder and campaigning organisations, and animal-rights philosophy. We then briefly review the historical development and current provisions of the regulatory framework in the UK (see Chapter 13).

## Early forms of animal research in the biological and medical sciences

- 2.2 In some respects, the scientific and ethical reasons for using animals in scientific research have changed little from the first experiments in ancient Greece. Natural philosophers and physicians of those times wanted to increase their knowledge about the way in which complex organisms such as humans and animals functioned.<sup>1</sup> They valued the pursuit of knowledge for its own sake and sought to understand how and why the body malfunctioned, to learn about the development of disease and the effects of injury, and to discover better treatments and cures. Aware of biological similarities between humans and other animals, they hypothesised that many findings about specific mechanisms or processes in animals could be applied to humans.
- 2.3 Animal research continued to be undertaken in some societies over the next 2,000 years and formed part of the systematic scientific enquiry carried out in the Roman Era (c.510BC–455AD)<sup>2</sup> and in early Arabic medicine (from the fall of Rome until the 15th century).<sup>3</sup> There is little evidence of similar activity having taken place in medieval Europe. By the 16th century, methodological research had become more widespread, particularly in the medical schools of Italy. The Catholic Church forbade human autopsy, which could have contributed to biological and physiological knowledge and the effects of diseases. Instead, animals were used as the primary physiological and anatomical models.<sup>4</sup>
- 2.4 Most historians of medicine agree that many fundamental early discoveries in physiology were derived from studying animals. These discoveries include William Harvey's demonstration of blood circulation in 1628, Robert Hooke's discovery of the function of the lungs in 1667 and Stephen Hales' measurement of blood pressure in 1733.<sup>5</sup> This traditional view has been challenged by commentators who argue that animal research has led merely to increased knowledge about animals, but not necessarily about humans, thereby delaying

<sup>1</sup> Rupke NA, Editor (1987) *Vivisection in Historical Perspective* (London and New York: Croon-Helm).

<sup>2</sup> The notable physician Galen of the 2nd century AD, for example, argued that vivisection was the only way to reveal the function of biological structures. See Guerrini A (2004) Experimenting with Humans and Animals: From Galen to animal rights *JAMA* 291: 2133–4; Orlans FB (1998) History and ethical regulation of animal experimentation: an international perspective, in *A Companion to Bioethics*, Kuhse H and Singer P (Editors) (Oxford: Blackwell).

<sup>3</sup> For example, it is thought that the doctor and philosopher Al-Razi (or Rhazes) (864–930 AD) tested treatments on animals to evaluate their efficacy and side effects. See Bunch B and Hellemans A (Editors) (2004) *The History of Science and Technology* (Boston: Houghton Mifflin Company).

<sup>4</sup> Hill RB and Anderson RE (1988) *The Autopsy – Medical Practice and Public Policy* (London: Butterworth).

<sup>5</sup> Rhodes P (1985) *An Outline of the History of Medicine* (London: Butterworth).

progress in medical research.<sup>6</sup> They also contend, for example, that it has not been necessary for medical progress, claiming that clinical observations in humans had actually revealed these discoveries, which were then subsequently ‘validated’ in animals.<sup>7</sup> Thus, even if many fundamental discoveries did involve the use of animals, they argue that this practice should not be mistaken for evidence of the *necessity* of animal experiments.<sup>8</sup> Discussion about whether or not these assertions are justified, and what a world without previous and current animal research would be like, is interesting, but not straightforward. It involves a significant number of highly speculative and variable hypotheses. While we address some related issues in Chapter 3 (paragraphs 3.11–3.12), we consider it more fruitful to explore the current potential of Replacements (see Chapter 11) rather than to focus on what could have been achieved without animal research in the past.

### Box 2.1: Use of important terms

Throughout this Report, we make occasional reference to specific concepts and groups of people involved in the debate about animal research. We explain below how we use the terms to describe them. They should not be understood as rigidly defined categories, suggesting that people can only be grouped under one of the terms. We merely use them for practical reasons, to highlight particular points of view.

- **Defenders of research involving animals:** There are several organisations that have been set up by researchers or patients expressly to defend the use of animals in medical research on scientific and ethical grounds. Many other scientific and medical organisations publicly support the need to use animals in research (see Box 2.4).
- **Opponents of research involving animals:** This group includes those who believe that animal research is not scientifically and/or ethically justified and oppose its use.
- **Antivivisection groups:** Originally, this term was used to describe groups that opposed animal research that involved performing surgical procedures on living animals (vivisection literally means the ‘cutting up’ of a living being). It is now often used as a term to describe groups that oppose any experimentation on living animals, on either scientific or ethical grounds, or on both.
- **Animal rights:** A concept according to which most, if not all, animals are granted rights to live a life free from abuse and exploitation by humans. This would imply that animals must not be harmed for scientific purposes or any other purposes that benefit humans, other animals or the environment (see Box 3.4). This view is sometimes compatible with using animals in

other contexts, for example as pets, provided that they are not treated merely as a means to an end. Those who espouse this principle differ in their views on how respect for animal rights should be promoted. Most restrict their actions to discussion in their immediate private environment; others campaign actively, but peacefully; a very small minority think it is justifiable to use unlawful, physical or psychologically violent actions with the aim of achieving an end to animal research or any other use they perceive as cruel.

- **Animal welfare:** This concept relates to the promotion and systematic study of all aspects of animal well-being. For animals involved in research, animal welfare includes the assessment of breeding, transport, housing, nutrition, disease prevention and treatment, handling and, where necessary, euthanasia. As a philosophical approach, the promotion of animal welfare is distinct from that of animal rights in the sense that those advocating respect for the welfare of animals do not necessarily wish to use the language of rights. Accordingly, animal-welfare groups emphasise human responsibility towards animals. They consider that some uses of animals may be acceptable (albeit with reluctance) provided they are adequately justified and carried out with full attention to the principle of the Three Rs, and that the behavioural and physiological needs of the animals concerned are addressed (see Box 2.4). Proponents of this approach are not necessarily committed to wishing an end to animal research, but most would see this state as desirable.
- **Animal protection groups:** An umbrella term for antivivisection, animal-rights and animal-welfare groups that seek to achieve the greatest possible protection of animals from inadequate treatment.

## Scientific developments and public opinion in the 18th and 19th centuries

2.5 As the study of animals developed in medical schools across Europe during the 17th and 18th centuries, experiments became increasingly complex and invasive. Due to the absence of anaesthetics, many experiments involved vivisection in the literal sense of the word (see Box 2.1), as some researchers frequently operated on unanaesthetised living animals as part of

<sup>6</sup> See Europeans for Medical Advancement website at: <http://www.curedisease.com/efma.htm>. Accessed on: 8 Apr 2005; LaFollette H and Shanks N (1996) *Brute Science: Dilemmas of animal experimentation* (Routledge: London).

<sup>7</sup> Greek CR and Greek JS (2000) *Sacred Cows and Golden Geese* (New York: Continuum), p19.

<sup>8</sup> Greek CR and Greek JS (2000) *Sacred Cows and Golden Geese* (New York: Continuum), p16.

their research. This practice disturbed many of their contemporaries and concern about the suffering of experimental animals increased. There was also opposition to practices which involved the death of an animal simply to illustrate a previously known scientific concept: for example, in the 17th century, the physician Robert Boyle repeatedly demonstrated respiration to interested audiences by placing an animal in a bell jar, which was then depleted of air by a pump, causing the animal to suffocate.<sup>9</sup>

- 2.6 Concern was expressed in different ways. For example, Alexander Pope published the essay *Against Barbarity to Animals* in an English daily newspaper in 1713. William Hogarth's engravings, entitled *The Four Stages of Cruelty*, were published as inexpensive reprints in 1751 and enjoyed considerable popularity. Samuel Johnson denounced animal experiments in 1758 with a polemic published in the weekly news journal *The Idler*. While most contributions focused on animal suffering, there were also fears that lack of respect for animals would corrupt humans. Thus Thomas Percival expressed in *A Father's Instructions* in 1789: 'Cruelty...will steal your heart and every generous principle of your nature will be subverted'.<sup>10</sup>
- 2.7 During the 19th century there was a dramatic increase in scientific exploration in Britain and elsewhere. The study of evolution, and the natural sciences, often involved animal research. In France, a tradition of experimental physiology, involving large numbers of sentient animals, was initiated by Françoise Magendie (1783–1855) and his most famous pupil Claude Bernard (1813–78). In Germany in 1854, the visiting British journalist George Lewes observed 'extensive apparatus and no end of frogs'.<sup>11</sup>
- 2.8 Among other things, the substantial expansion of the middle classes in Victorian Britain, and increasing amounts of leisure time, contributed to growing concerns for animal suffering among lay people and scientists. Marshall Hall (1790–1857), a physician and noted physiologist, supported animal research but stated 'Unhappily... the subjects of animal physiology are sentient, and every experiment is attended by pain and suffering.'<sup>12</sup> Presaging later systems of regulation, Hall set out five guiding principles of animal research to stimulate debate in the scientific community:
- i) the lack of an alternative;
  - ii) a clear objective;
  - iii) the avoidance of repetition of work;
  - iv) the need to minimise suffering; and
  - v) full and detailed publication of the results.<sup>13</sup>
- 2.9 In Britain, experimental physiology, which was the main form of medical research at that time, was relatively underdeveloped by comparison with the rest of Europe.<sup>14</sup> In 1863 an

<sup>9</sup> See Thomas K (1996) *Man and the Natural World, Changing attitudes in England 1500–1800* (Oxford: Oxford University Press). See also a well-known painting by Joseph Wright from 1768 showing such an experiment being conducted, available at: <http://www.nationalgallery.org.uk/cgi-bin/WebObjects.dll/CollectionPublisher.woa/wa/work?workNumber=NG725>. Accessed on: 12 Apr 2005.

<sup>10</sup> See also Shakespeare's *Cymbeline* Act 1, scene 5: 'your highness shall from this practice but make hard your heart'; Dunlop RH and Williams DJ (1996) Bioethics, animal experimentation and sentience, in *Veterinary Medicine: An illustrated history* (St. Louis, MO: Mosby), Chapter 32.

<sup>11</sup> Wilson AN (2003) *The Victorians* (New York: W. W. Norton & Company).

<sup>12</sup> In Dunlop RH and Williams DJ (1996) Bioethics, animal experimentation and sentience, in *Veterinary Medicine: An illustrated history* (Mosby), Chapter 32.

<sup>13</sup> Rupke NA (Editor) (1987) *Vivisection in Historical Perspective* (London and New York: Croon-Helm).

<sup>14</sup> Radford M (2001) *Animal Welfare Law in Britain: Regulation and responsibility* (Oxford: Oxford University Press), p67.

editorial in the leading medical journal, *The Lancet*, stated ‘... perhaps some two or three, or at most six, scientific men in London are known to be pursuing certain lines of investigation which require them occasionally during the course of a year to employ living animals for the purpose of their inquiries.’<sup>15</sup> However, in the mid-1860s, when general anaesthesia was introduced to Britain, a new generation of medical scientists began to experiment on animals rendered unconscious with ether or chloroform. According to government statistics, the number of animal experiments conducted in Britain increased from 250 in 1881 (the first year that records were kept) to 95,000 in 1910.<sup>16</sup>

2.10 Although there were sporadic examples of publications from the early 18th century onwards (see paragraph 2.6), formal public and political debate about animal research in Britain can be traced to the Annual Meeting of the British Medical Association (BMA) held in Norwich in 1874. The BMA had invited the French scientist Eugene Magnan to lecture on the physiological effects of alcohol. After the lecture, Dr Magnan gave a demonstration of the induction of experimental epilepsy in a dog by the intravenous injection of absinthe. There is no accurate record of what happened at the meeting, but it is known that some members of the audience protested and an eminent medical figure summoned the magistrates to prevent the demonstration from continuing. The Royal Society for the Prevention of Cruelty to Animals (RSPCA; see Box 2.4) brought a prosecution for cruelty, and several of the doctors present at the lecture gave evidence against Dr Magnan, who had returned to France to avoid answering the charges. The press followed these events with interest, and a heated debate unfolded in the pages of popular magazines. The very first animal protection pamphlets, calling for legislation to regulate animal research, appeared shortly after the BMA meeting.<sup>17</sup>

2.11 Over the next two years, the debate gathered momentum. The first animal protection society was formed in 1875 by the writer and suffragette Frances Power Cobbe.<sup>18</sup> She had returned from Italy earlier that year, having organised a campaign against the use of dogs and other animals in experiments conducted by an Italian professor of physiology. She also founded the British Union for the Abolition of Vivisection in 1898, based on the principle of total abolition (see Box 2.4).<sup>19</sup> In 1875 Cobbe helped to introduce a bill into Parliament that called for the regulation of animal experiments.

2.12 The medical and scientific professions responded to what they had not previously perceived to be a serious threat to biological and medical research by countering the bill with a second, less restrictive draft. In an attempt to resolve the issue, a Royal Commission was established. It recommended in January 1876 that the practice of animal research should be regulated by law. In view of the two proposals, new legislation was prepared and introduced into the House of Lords in May of that year. The General Medical Council collected 3,000 signatures calling for amendments and a revised Bill was finally accepted by the Government, becoming the 1876 Cruelty to Animals Act.<sup>20</sup> This was the first legislation in the world to regulate

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<sup>15</sup> Anon (1863) *The Lancet* ii: 252–3.

<sup>16</sup> French RD (1975) *Antivivisection and Medical Science in Victorian Society* (Princeton: Princeton University Press).

<sup>17</sup> Hopley E (1998) *Campaigning Against Cruelty – The hundred year history of the British Union for the Abolition of Vivisection* (London: BUAV), p4; French RD (1975) *Antivivisection and Medical Science in Victorian Society* (Princeton: Princeton University Press).

<sup>18</sup> The *Society for the Protection of Animals Liable to Vivisection* later became the *Victoria Street Society* and then the *National Anti-Vivisection Society* (see Box 2.4).

<sup>19</sup> Hopley E (1998) *Campaigning against Cruelty – The hundred year history of the British Union for the Abolition of Vivisection* (London: BUAV).

<sup>20</sup> French RD (1975) *Antivivisection and Medical Science in Victorian Society* (Princeton: Princeton University Press); Hopley E (1998) *Campaigning against Cruelty – The hundred year history of the British Union for the Abolition of Vivisection* (London: BUAV), p5; Radford M (2001) *Animal Welfare Law in Britain: Regulation and responsibility* (Oxford: Oxford University Press), p67.

animal research. The 1876 Act allowed certain experiments, but required that licence applications be reviewed and authorised. Decisions about licences were taken by the Secretary of State, but required eminent supporters, usually Presidents of the Royal Medical Colleges. Licences were administered by the Home Office (see paragraphs 13.2–13.3).

- 2.13 Between 1876 and the start of the First World War, public debate about animal research flourished in the UK, with the founding of several animal protection organisations and the establishment of a second Royal Commission in 1906.<sup>21</sup> Several public lectures took place, and a great number of books and leaflets addressing concerns about animal research were published.<sup>22</sup>

## Developments in policy and public opinion

### *The principle of humane experimental technique: the Three Rs*

- 2.14 Throughout the first half of the 20th century, the use of animals in biological and medical research increased greatly under the regulatory licensing system, despite continuing protests. Although active opposition to animal research was at a relatively low level between the 1920s and 1960s, changes in the way animals were treated, and increased understanding of the capacity of animals to suffer pain and distress led to the first radical scientific reassessment of the 1876 Act.
- 2.15 Two pioneers of laboratory animal welfare were the UK scientists Professor William Russell and Rex Burch. In 1958, the Universities Federation for Animal Welfare (UFAW), an organisation committed to advancing animal welfare in research through support for studies on humane techniques (see Box 2.3), awarded fellowships to Russell and Burch to study ethical aspects of animal research. Their seminal book, *The Principles of Humane Experimental Technique*, published the following year, defined the principle of the Three Rs (Refinement, Reduction and Replacement of animal experiments) as the basis for more humane experimental practices (see Box 2.2). The concept initially attracted little attention. It was not until 1978 when Professor David Smythe (then Chairman of the Research Defence Society, RDS; see Box 2.4) published the book *Alternatives to Animal Experiments*, that scientists started to become more aware of

#### Box 2.2: The Three Rs

The Three Rs are discussed in more detail in Chapters 11 and 12. We reproduce here the definitions as presented by Russell and Burch in 1959:\*

**Refinement:** Any decrease in the incidence of severity of inhumane procedures applied to those animals which are used.

**Reduction:** The reduction in the number of animals used to obtain information of given amount and precision.

**Replacement:** The substitution of conscious living higher animals with insentient material.

\* See Russell WMS and Burch RL (1959) *The Principles of Humane Experimental Technique* (London: Methuen & Co. Ltd.), available at: [http://altweb.jhsph.edu/publications/humane\\_exp/het-toc.htm](http://altweb.jhsph.edu/publications/humane_exp/het-toc.htm). Accessed on: 15 Apr 2005.

21 The Commission was established in response to renewed public concern about animal research that had arisen, at least partly, from a trial of Stephen Coleridge, Secretary of the National Anti-Vivisection Society (see Box 2.4). In 1903, he had quoted from the book *The Shambles of Science* at a public meeting. The book was published by two antivivisectionists and described their experiences as medical students in London. Coleridge was successfully sued for defamation by a scientist, but the evidence revealed at the trial and the subsequent popularity of the book from which Coleridge had quoted led to an increase in sensitivity about animal research. A statue of a small brown dog was subsequently erected in Battersea Park, London in 1906. The inscription read: 'In memory of the brown terrier dog done to death in the laboratories of University College in February 1903 after having endured vivisection extending over more than two months and having been handed over from one vivisectionist to another till death came to his release. Also in memory of the 232 dogs vivisected in the same place during the year 1902. Men and women of England: How long shall these things be?' The statue became the symbol of the controversy surrounding vivisection and attracted a series of demonstrations and counter demonstrations. In 1907, some hundred medical students tried to destroy the statue, but were prevented by local residents and the police. Considering the controversy afresh from first principles, the Commission concurred with the findings of the first Commission and saw no need for any major revisions to the statutory framework. A number of administrative changes were suggested, such as an increase in staff of the inspectorate and refinement of methods of handling animals. See Radford M (2001) *Animal Welfare Law in Britain: Regulation and responsibility* (Oxford: Oxford University Press), p71–2.

22 See Hopley E (1998) *Campaigning against Cruelty – The hundred year history of the British Union for the Abolition of Vivisection* (London: BUAV).

the Three Rs. Since the mid-1980s, knowledge about the concept has increased among scientists, and it has since been accepted in many parts of the world. While many stakeholders would argue that each of the Three Rs is equally important, there are also organisations dedicated specifically to the Replacement approach (see Box 2.4 and Chapter 11).

### Box 2.3: Humane research trusts

#### **Dr Hadwen Trust**

<http://www.drhadwentrust.org.uk>

Established in 1970, the Dr Hadwen Trust is a medical research charity that funds the development of alternatives to replace animal experiments in biomedical research and testing. The Trust aims to contribute to the replacement of animals while furthering research into major health problems such as cancer, heart disease, meningitis and Alzheimer's disease. Researchers sponsored by the Trust do not conduct research on animals or animal tissues.

#### **Humane Research Trust**

<http://www.humaneresearch.org.uk>

The Humane Research Trust is a fund-raising charity supporting medical research into human disease without the use of animals or animal tissue. It aims to eliminate the need for animals in the medical sciences. Established in the late 1960s the Trust works with scientists, funding a wide range of projects at UK hospitals and universities. The Trust also funds lectureships and studentships and hosts scientific conferences.

2.16 In the latter half of the 20th century, the study of animal welfare and animal behaviour became increasingly established as scientific disciplines. A number of animal-welfare organisations, especially the UFAW, the Fund for the Replacement of Animals in Medical Experiments (FRAME) and the RSPCA (see Box 2.4), contributed to this development. They established working relationships with organisations emerging within the scientific community which had a specific interest in laboratory animal welfare including the Laboratory Animals Science Association (LASA), the Institute of Animal Technology (IAT) and the Laboratory Animal Veterinary Association (LAVA; see Box 2.4). All of these groups contributed to the developing legislation. In the European Union (EU), the establishment of the European Centre for the Validation of Alternative Methods (ECVAM; see Box 2.4) was a significant step towards achieving the promotion of the Three Rs across Member States.

### Box 2.4: Campaigning and stakeholder organisations focusing on scientific and ethical issues raised by animal research

#### **Animal-welfare organisations**

##### **Universities Federation for Animal Welfare (UFAW)**

<http://www.ufaw.org.uk>

UFAW is an independent animal-welfare organisation that was founded in 1926 by Major Charles Hume, based on his belief that 'animal problems must be tackled on a scientific basis, with a maximum of sympathy but a minimum of sentimentality'. UFAW has since played a major role in improving conditions for animals. The organisation focuses on promoting scientific knowledge and expertise to improve the welfare of pets, zoo animals and laboratory animals, as well as in agriculture. UFAW funds research, holds symposia, gives advice to the Government and others, and produces publications on animal welfare, including the journal *Animal Welfare* and the *UFAW Handbook on the Care and Management of Laboratory Animals*.

##### **Fund for the Replacement of Animals in Medical Experiments (FRAME)**

<http://www.frame.org.uk>

FRAME was founded in 1969 to promote the Three Rs and to raise awareness about alternative methods. FRAME also publishes the peer-reviewed scientific journal *ATLA (Alternatives to Laboratory Animals)*. The Fund takes the view that the current scale of animal research is unacceptable, while recognising that immediate abolition of all animal experiments is not a feasible option. Its long-term aim is to replace the use of laboratory animals through the development, validation and acceptance of alternative methods. In 1983, FRAME joined with the British Veterinary Association (BVA) and the Committee for the Reform of Animal Experimentation (CRAE) to advise the Government on what would become the Animals (Scientific Procedures) Act 1986 (A(SP)A). In 1991, the FRAME Alternatives Laboratory (FAL) was opened at the University of Nottingham Medical School.

**Royal Society for the Prevention of Cruelty to Animals (RSPCA)**

<http://www.rspca.org.uk>

The RSPCA was established in 1824 as the first national animal protection society in the world. The Society is involved in preventing cruelty and promoting animal welfare in a wide range of uses of animals, as well as being an active campaigning organisation. It employs veterinary and scientific experts to identify animal-welfare concerns, and to devise ways of resolving them for farm livestock, wildlife, pets and animals used in research. The Society is opposed to all animal experiments that cause pain, suffering, distress or lasting harm. It believes that the benefit and justification for animal use should be challenged on a case by case basis, and promotes the development and implementation of the Three Rs.

Since the early 20th century, the RSPCA has taken an active role in ensuring the sound application of legislation that protects animals. Upon receiving royal approval in 1840, an inspector was appointed to ascertain the treatment of animals in markets and slaughterhouses. Today, the Society comprises a national network of 187 branches, several animal hospitals, an emergency service for injured, trapped or stranded animals, and a national cruelty and advice telephone line.

The RSPCA has been influential in shaping UK legislation on animal welfare and also places emphasis on educating students, teachers, youth organisations and trainers about animal welfare. A range of National Curriculum resources is available, and activity days and courses are held at four education centres. In 1980, the RSPCA established the Eurogroup for Animal Welfare, the first coalition of animal-welfare groups in Europe.

**Professional bodies focusing on improving standards in laboratory animal science, care and welfare****Laboratory Animals Science Association (LASA)**

<http://www.lasa.co.uk>

The UK LASA was founded in 1963 by representatives from industry, academia, government and the research councils. Their aim was to establish an organisation which provided information and a forum for ideas on the science of using animals in research.

LASA provides advice to its members in the scientific community on developments in the Three Rs, good practice and techniques. LASA acknowledges the relevance of ethical issues raised by animal research and constantly reviews its policies. The Association also addresses ethical issues in its training courses. LASA is a member of both the Federation of European Animal Science Associations (FELASA) and the International Council for Laboratory Animal Science (ICLAS).

**Laboratory Animal Veterinary Association (LAVA)**

<http://www.lavavet.org>

A division of the British Veterinary Association, LAVA focuses on veterinary care and all aspects of the welfare of laboratory animals. LAVA's members are veterinary surgeons involved in a wide range of laboratory-based animal medicine and science. Many members act as Named Veterinary Surgeons under the A(SP)A. LAVA is active in training and keeping members abreast of recent developments in the promotion of laboratory animal welfare.

**Institute of Animal Technology (IAT)**

<http://www.iat.org.uk>

The Animal Technicians Association, the IAT's predecessor, was established in 1950. The IAT aims to advance and promote excellence in the care and welfare of animals in science, recognising that while humans have a moral and legal obligation to care for each other by prolonging life and alleviating suffering, there is also an obligation to ensure that the animals used to further these aims are properly cared for and protected.

The Institute has developed training courses for animal technicians, produced publications and introduced qualifications. In 1985, a Register of Animal Technicians was established to emphasise the Institute's position on the ethical and legal aspects of care of laboratory animals. Many members of the Register, who are bound by a code of ethics, are specified as Named Animal Care and Welfare Officers (NACWO) under the A(SP)A and are responsible for the care of animals in designated establishments.

**European Centre for the Validation of Alternative Methods (ECVAM)**

<http://ecvam.jrc.cec.eu.int>

ECVAM was established by the European Commission in 1992 to actively support the development, validation and acceptance of methods that could reduce, refine or replace the use of laboratory animals, implementing the provisions of Directive EEC 86/609. Its main activities are:

- to coordinate the validation of alternative test methods in the EU;
- to act as a focal point for the exchange of information on the development of alternative test methods;
- to set up, maintain and manage a database on alternative procedures; and
- to promote dialogue between legislators, industry, biomedical scientists, consumer organisations and animal-welfare groups, with a view to the development, validation and international recognition of alternative test methods (see paragraph 11.34).

In the UK, a National Centre for the Three Rs (NC3Rs) was established in 2004 (see box 11.3).

## Organisations defending the use of animals in research

### ***RDS Understanding Animal Research in Medicine (formerly the Research Defence Society)***

<http://www.rds-online.org.uk>

Founded in 1908, the RDS is a UK-based organisation representing medical researchers in the public debate about the use of animals in medical research and testing.

RDS provides a public information service about the role of animal research, the controls under which research is carried out and the benefits that have resulted. It also liaises with the media and Members of Parliament, providing information, briefings, talks, interviews and arranging visits to research laboratories. RDS is funded by its members, most of whom are medical researchers, doctors and veterinary surgeons. Corporate members include research institutes, university departments, medical research charities, learned societies and pharmaceutical companies.

### ***Association of the British Pharmaceutical Industry (ABPI)***

<http://www.abpi.org.uk>

The ABPI is the UK pharmaceutical industry's pre-eminent association, representing about 100 companies that produce prescription medicines. Its member companies research, develop, manufacture and supply more than 90 percent of the medicines prescribed through the National Health Service (NHS) and are major exporters to other countries. Contract research organisations and other companies that support the pharmaceutical industry are affiliate members.

Under the auspices of its Research and Development Committee, the ABPI's Animal Research and Welfare Advisory Group plays an active role in promoting best practice in animal welfare and implementing the Three Rs. The ABPI also supports science education from primary through to university level, producing educational materials that describe critical areas of science and technology, and explain the role of the pharmaceutical industry in the development of new medicines, the use of animals in research and the regulatory context.

### ***Association of Medical Research Charities (AMRC)***

<http://www.amrc.org.uk>

The AMRC is a membership organisation of over 100 UK charities that fund medical and health research. It was founded in 1972 and established as a charity in 1987.

The AMRC aims to provide support and leadership for its members and the wider charity sector involved in medical and healthcare research through the provision of information and guidance. Member charities are obliged to use peer-review processes in allocating funding, and they are required to support, among other things, AMRC position statements on the use of animals in medical research. AMRC members are committed to ensuring that they support the most effective research in the right environment and that the researchers they fund follow good-practice guidelines in their work.

### ***Coalition for Medical Progress (CMP)***

<http://www.medicalprogress.org>

The CMP is an alliance of organisations that share the common aim of seeking to ensure that the UK continues to lead advances in human and animal medicine. Researchers, funding bodies such as the Medical Research Council (MRC) and the Wellcome Trust and professional bodies including IAT, LASA, LAVA (see above) cooperate in this initiative to explain and illustrate the need for research involving animals and its benefits, and to respond to specific issues of public interest.

## Anti-vivisection organisations

### ***National Anti-Vivisection Society (NAVS)***

<http://www.navs.org>

Established in 1875 as the Victoria Street Society, the NAVS was the world's first organisation campaigning against animal experiments. The Society was founded by the humanitarian Francis Power Cobbe, who in 1898 left to form the BUAV.

The NAVS operates through public education, political lobbying and publicity campaigns, and produces technical reports, educational literature, books and films. The Society funds non-animal research through the Lord Dowding Fund for Humane Research, a department of the NAVS. In 1990, NAVS founded Animal Defenders International, to campaign on a broader range of animal and environmental issues.

### ***British Union for the Abolition of Vivisection (BUAV)***

<http://www.buav.org>

Founded in 1898, the BUAV opposes all animal experiments on both ethical and scientific grounds. The organisation is dedicated to ending animal experiments, both nationally and internationally, through public campaigning, undercover investigations, media activities, political lobbying, corporate relationships, the provision of legal and scientific expertise, and the production and distribution of educational and information materials. Campaigns cover issues such as the use of animals in the testing of cosmetics, household products, chemicals and pet food, their use in medical research and the genetic modification of animals.

The BUAV coordinates the European Coalition to End Animal Experiments (ECEAE) and is a founder member of the International Council for Animal Protection in OECD Programmes (ICAPO).

***The emergence of animal-rights philosophy***

2.17 From the 1970s onwards, ethical issues raised by animal research received increasing attention in academic discussion, and a number of influential contributions were made to the debate. In 1975, Dr Richard Ryder published the influential book, *Victims of Science*, and coined the term 'speciesism' to liken the treatment of animals by humans to forms of unjustified discrimination, such as racism or sexism (see Box 3.4).<sup>23</sup> In the same year, another influential book was published, *Animal Liberation*, written by the Australian philosopher Professor Peter Singer. Singer argued that the suffering of most animals should be given equal consideration to the suffering of most humans. The book is regarded by many of those opposed to animal research as the manifesto for their movement, and provides the ethical rationale for the activities of a number of campaigning groups. However, we note that Singer argued from a utilitarian perspective (see paragraphs 3.52–3.55), which is not accepted by all of those opposed to animal research. Moreover, the concept of ascribing 'rights' to animals is usually not associated with utilitarian approaches. A significant contribution setting out a rights-based approach was made in 1983 by Professor Tom Regan in *The Case for Animal Rights*.

2.18 While some animal protection groups stimulated debate through academic discussion, books and leaflets, others sought to influence policy makers more directly. In 1977, the Committee for the Reform of Animal Experimentation (CRAE) was founded and began lobbying government for new legislation on animal research.

***Undercover investigations/infiltrations undertaken by animal protection organisations***

2.19 The two main anti-vivisection societies in the UK are the BUAV and the NAVS (see Box 2.4). They believe that animal research often takes place in secret and therefore they seek to draw attention to the issue by conducting undercover investigations of animal facilities. They aim to demonstrate to the public the severity of licensed research involving animals and have made numerous allegations of unlawful practices in some cases (see Box 2.5).<sup>24</sup>

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<sup>23</sup> Ryder R (1975/1983) *Victims of Science: The Use of Animals in Research* (London: Open Gate Press).

<sup>24</sup> See, for example, the BUAV website *Exposing secrets*, available at: <http://www.buav.org/undercover/secrets.html>. Accessed on: 11 Mar 2005.

### Box 2.5: Examples of undercover investigations /infiltrations

- In 1975 the *Sunday People* newspaper published an exposé of ‘smoking beagles’ at laboratories belonging to Imperial Chemical Industries (ICI), which aroused wide public interest. The article carried explicit pictures of dogs that were confined to small boxes and forced to inhale tobacco smoke through devices attached to their muzzles. The research had the aim of testing the efficacy of tobacco substitutes, but adverse publicity resulted in its termination.
- In 1989–90 an undercover investigator recorded video- and audio-tape material and took photographs of experiments involving cats and rabbits conducted by Professor Wilhelm Feldberg and his assistant at the MRC’s National Institute for Medical Research (NIMR) at Mill Hill in London. The professor was conducting basic research on the effects on blood sugar of heating the abdomen of an animal. Following the investigation, the 89-year-old scientist was accused of inadequately anaesthetising animals, poor performance and leaving anaesthetised animals unattended. The two researchers returned their licences to the Home Office before an inquiry into the matter was established by the MRC (there was some confusion in the reports at the time as to whether the licences were to be revoked or whether this was a voluntary measure). The inquiry found that, as a result of a failure by the researchers to maintain anaesthesia of sufficient depth, up to four rabbits experienced avoidable suffering. The inquiry also found that the Director of the NIMR (as the certificate holder) and the Named Veterinary Surgeon had failed in their statutory duties under the A(SP)A. As a result the Home Office required the Director to implement a number of changes at the Institute. In addition, the Home Secretary decided that nobody over the age of 70 should hold a project licence.\*
- In 1989, a BUAV undercover investigator joined the contract research organisation (CRO)<sup>25</sup> Huntingdon Research Centre, now Huntingdon Life Sciences (HLS), as a weekend cleaner of the rodent and dog facilities. She produced photographic images, some of which were published together with a report in the British newspaper *Today*, and subsequently in publications of the BUAV. The report accused HLS of condoning unnecessary animal suffering and providing poor housing conditions. The subsequent investigation by the Home Office concluded that the company had not committed any legal offence.† HLS was infiltrated again in 1996 by an investigative journalist. The investigator filmed amongst other things a member of staff punching a beagle that was being held by a colleague, and the footage was included in a television programme. The two employees were subsequently prosecuted under the Protection of Animals Act of 1911 and admitted to charges of ‘cruelly terrifying dogs’. They were given community service orders and were dismissed from their employment.‡
- Wickham Research Laboratories, a CRO, was the subject of an undercover investigation by the BUAV in 1993. The investigator reported breaches in Home Office licence conditions and inadequate animal housing

facilities. It was also alleged that the Home Office was sanctioning procedures for which non-animal methods were available. The Home Office Inspectorate and the Medicines Control Agency investigated these allegations. Their report disclosed poor management which had led to lax attitudes and practices among certain members of staff including the falsifying of test and environmental data. One case of unnecessary use of animals was also identified and some aspects of staff training were declared ‘unsatisfactory’. Responsibility for these failures was found to lie with the line manager for the named ‘day-to-day care person’ at the time. It was recommended that the manager, who had subsequently become the ‘day-to-day care person’ by the time of the Home Office investigation, should be replaced and his personal licence revoked. A number of other members of staff at Wickham received letters of admonition. The company was also directed by the Home Office to agree to a formal training scheme for all staff in its animal unit and to revise standard operating procedures. However, the Junior Minister of the Home Office, who reported the findings, said that he was satisfied that all the work at Wickham was properly licensed under the A(SP)A and that some of the other principal allegations above were also not substantiated.]

- The NAVS undertook an undercover investigation at the Charing Cross and Westminster Medical School in 1994–5. Members of the Society reported the killing of rodents that were surplus to requirements and which had not been used, and improper killing methods. The organisation presented its report on the matter, *Access Denied*, to the Home Office and the Animal Procedures Committee. In 1996 the Home Office Inspectorate carried out an investigation into the allegations. The Inspectorate identified ‘irregularities in the application of approved methods for the humane killing of animals and deficiencies in middle management’. The certificate of designation (see paragraph 13.8) was revoked and a new certificate was issued once the medical school had met certain criteria set by the Home Office. These included the retraining of staff, the putting in place of operating procedures and changes to the animal care arrangements.\*\*
- A BUAV infiltration took place at a primate research facility at Cambridge University in 2001–2. The BUAV alleged unprofessional care of animals involved in procedures, supported by video documentation. The Home Office was asked to review whether the circumstances of the research were acceptable under the terms of the project licence. The subsequent review by the Home Office concluded that the severity limits and bands for the projects, none of which was classed as higher than ‘moderate’, were correctly assigned, and that there was no evidence for the BUAV’s main allegations. However, having scrutinised details of all procedures performed extending back to 1998, four instances of non-compliance with licence authorities were identified by the Chief Inspector’s review. In 2004–5 the BUAV sought a judicial review against the Home Office on specific points relating to both the A(SP)A licences and the care of the monkeys they had filmed at Cambridge. The BUAV have been granted

<sup>25</sup> Contract research organisations (CROs) usually conduct specific research on behalf of companies or institutes which, for logistical or other reasons, do not undertake the research themselves. In some cases, this research involves the safety testing of new medicines and other products including household chemicals and agrochemicals.

permission to proceed on two of the grounds relating to the former. The other grounds have not been allowed to proceed, although at the time of writing the BUAV is considering appealing against this decision.††

- In 2003 the BUAV reported its findings of an undercover investigation undertaken in Germany within Covance, a CRO. The BUAV alleged that Covance had breached German animal-welfare legislation. Covance denied the allegations and an investigation was initiated by the German authorities. All accusations were found to be groundless. In July 2004, the BUAV submitted a complaint to the European Commission stating that the German authorities had failed to properly transpose into national law the EU Directive regulating animal experiments. The BUAV also asserted that appropriate sanctions against Covance for breaches of German animal-welfare law had not been imposed. In refusing Covance's application for an injunction, the appeal court in Nordrhein Westfalen allowed the dissemination of video and photograph material obtained by the investigator.‡‡

\* The investigator subsequently wrote a book detailing her experiences. MacDonald M (1994) *Caught in the Act: The Feldberg Investigation* (Jon Carpenter Publishing). See Coghlan A (1990) MRC launches inquiry into animal experiments *New Scientist* 1720 9 June; Ward L (1992) Time for talk across the trenches: The two sides in the antivivisection debate must stop sniping at each other if they are ever to find some common ground *New Scientist* 1820 9 May; Hampson J (1992) The secret world of animal experiments: Despite the 1986 act, the public still has little say on what is done in animal experiments. Ethical committees could give lay people a voice *New Scientist* 1816 11 April. See also *Written Answers to Questions*, House of Commons debate (1991), available at: <http://www.publications.parliament.uk/pa/cm199091/cmhansrd/1991-03-11/Writtens-1.html>. Accessed on: 14 Apr 2005; NAVS (1996) *Access Denied Legal Critique*, available at: [http://www.navs.org.uk/download\\_files/publications/reports/Access\\_Denied1Legal\\_Critique.pdf](http://www.navs.org.uk/download_files/publications/reports/Access_Denied1Legal_Critique.pdf). Accessed on: 14 Apr 2005; Animal Procedures Committee (1991) *Report of the Animal Procedures Committee for 1990* (London: HMSO), available at: <http://www.apc.gov.uk/reference/ar90.pdf>. Accessed on: 22 Apr 2005.

† See BUAV report of the infiltration, BUAV *Huntingdon Life Sciences*, available at: <http://www.buav.org/undercover/hls.html>. Accessed on: 11 Mar 2005.

‡ The television programme referred to was the 1997 Channel 4 documentary *It's a Dog's Life*; see also an article by the undercover investigator, Broughton A (2000) Seeing is Believing: Animals rights abuse exposed *The Ecologist* 22 February, available at: [http://www.theecologist.org/archive\\_article.html?article=203&category=59](http://www.theecologist.org/archive_article.html?article=203&category=59). Accessed on: 11 Mar 2005.

§ BUAV *Wickham Research Laboratories*, available at: <http://www.buav.org/undercover/wickham.html> Accessed on: 23 Feb 2005; House of Commons debate (1993), available at: <http://www.parliament.the-stationery-office.co.uk/pa/cm199293/cmhansrd/1993-06-22/Writtens-1.html>. Accessed on: 23 Feb 2005.

\*\* NAVS *Charing Cross and Westminster Medical School NAVS undercover investigation 1994-95*, available at: [http://www.navs.org.uk/vivisection/inside/cc\\_westminster.htm](http://www.navs.org.uk/vivisection/inside/cc_westminster.htm); See also House of Commons (1997) *Written Answers to Questions*, available at: <http://www.parliament.the-stationery-office.co.uk/pa/cm199798/cmhansrd/v0970730/text/70730w01.htm>. Accessed on: 22 Feb 2005.

†† See BUAV website for details of the initial investigation, a response to the Home Office's review and press release, available at: <http://www.buav.org/undercover/cambridge.html> and <http://www.buav.org/news/2005/02-04.html>; (2002) *Aspects of Non-human Primate Research at Cambridge University: A Review by the Chief Inspector*, available at: <http://www.homeoffice.gov.uk/docs/cambridge.html>; University of Cambridge (2003) *Statement on Home Office Report*, available at: <http://www.admin.cam.ac.uk/news/press/dpp/2003021101>. All accessed on: 14 Apr 2005; BUAV (2005) Press Release *Judicial review investigating cruelty to monkeys at Cambridge University set to proceed*, available at: <http://www.buav.org/press/2005/0412.html>. Accessed on: 22 Apr 2005; RDS (2005) *Antivivisectionists' legal challenge - the facts*, available at: [http://www.rds-online.org.uk/pages/news.asp?i\\_ToolbarID=6&i\\_PageID=1816](http://www.rds-online.org.uk/pages/news.asp?i_ToolbarID=6&i_PageID=1816). Accessed on: 22 Apr 2005.

‡‡ BUAV *Poisoning for Profit*, available at: <http://www.buav.org/covance/index.html>. Accessed on: 14 Apr 2005; European Biomedical Research Association Winter Bulletin (2003) *Infiltration of Covance in Germany*, available at: [http://www.ebra.org/bulletin/win05\\_03.html](http://www.ebra.org/bulletin/win05_03.html). Accessed on: 14 Apr 2005; BUAV (2004) Press release *Covance: BUAV makes official complaint to EU Commission*, available at: <http://www.buav.org/news/2004/07-15.html>. Accessed on: 14 Apr 2005; Court of Appeal Nordrhein Westfalen (2004) Press release *Bilder aus Tierversuchslabor dürfen teilweise veröffentlicht werden* (AktENZEICHEN 3 U 77/04), available at: <http://www.olg-hamm.nrw.de/presse/archiv/2004/tiervers.htm>. Accessed on: 22 Apr 2005.

2.20 Opponents of undercover investigations view them as unlawful and possibly illegal infiltrations.<sup>26</sup> They argue that the investigators provide untruthful information when applying for jobs and at interviews, and that they act unlawfully during their time at the institution, for example by disclosing confidential information. They also argue that many infiltrations fail to produce any compromising evidence, and that these findings are not published. Where findings are published, critics assert that reports are often highly selective in the facts that are presented and that they therefore do not do justice to the claim of showing the reality of animal research. Many establishments also have 'whistleblowing' procedures in place, that require staff to report breaches of codes of conduct to supervisors, facility managers or to the

<sup>26</sup> Some opponents prefer to describe infiltrations as illegal, rather than unlawful, suggesting breaches of the criminal rather than the civil law. However, most activities associated with infiltration, such as the publication of confidential data, which is usually not compatible with contracts of employment, breach the civil law. The criminal law can be invoked in cases where employment is obtained by deception (Theft Act 1968 s.16(2)(c)), or in cases where material is removed from laboratories (Theft Act 1968 s.1). An important criterion in deciding about the applicability of these offences is 'dishonesty', which is a relatively vague concept relating to whether or not the action was contrary to accepted standards in society.

Certificate Holder. Opponents of infiltrations argue that those concerned about animal welfare should use these procedures, instead of publishing reports. According to this view, infiltrations are unacceptable, and prevent the building of trust between researchers and animal protection organisations. Infiltrations are thought to obstruct the pursuit of an open and factual discussion about animal research.

2.21 Proponents of undercover investigations, on the other hand, assert that research is being conducted in secrecy and that insufficient information, particularly about the suffering of animals involved in research, is available. They take the view that publication of undercover investigations is in the public interest as it can help to demonstrate the reality of animal research and to expose cases of malpractice, abuse of animals and poor scientific practice. Proponents believe that investigators join research institutes legally, and that their reports should therefore be viewed as legitimate records of practices that are kept secret from the public and Parliament.

### ***Organised unlawful protests against animal research since the 1970s***

2.22 A very small fraction of those opposing research involving animals employ unlawful or extreme means of protest. They adopt violent or intimidating action towards researchers and their families, and also against those who are associated with organisations conducting such research, for example customers, shareholders, suppliers and other customers of suppliers.

2.23 Criminal activities began in the UK with arson attacks on pharmaceutical laboratories in the 1970s. During this decade, the Animal Liberation Front (ALF) was formed in the UK, and started a campaign of 'freeing' or 'liberating'<sup>27</sup> animals from laboratories, causing unlawful damage in the process. Their tactics became increasingly violent, and in 1982 the ALF sent letter bombs to the leaders of the four main political parties in the UK, injuring a civil servant.<sup>28</sup> In 1985, petrol-bomb attacks on the homes of a small number of medical researchers were carried out. Later that year, the Animal Rights Militia claimed responsibility for two bombs planted under the cars of scientists. During the next ten years, protesters frequently targeted researchers whose work involved animals, as well as company sites linked with research or food testing.<sup>29</sup>

2.24 In the 1990s, a campaign against the CRO HLS was launched. Staff of the company, as well as its shareholders, banks, stockbrokers and clients, were harassed in different ways and many employees received hate mail and death threats, or had damage caused to their houses and cars. Senior staff of HLS were attacked physically, and on a few occasions hoax bombs were sent.<sup>30</sup> A group of animal-rights activists launched an initiative under the name Stop Huntingdon Animal Cruelty (SHAC). Although SHAC states on its website that it does not encourage illegal activities, some of its leading members have been convicted of criminal offences.<sup>31</sup> The protests have led some companies to withdraw their financial and auditing services from HLS, including its major creditors, the Royal Bank of Scotland. The UK Government, which also supported the company during the early phases of SHAC's protest, has agreed to provide banking and insurance facilities for the company.<sup>32</sup> Protestors have

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<sup>27</sup> In many cases, animals that are taken from laboratories and placed in their natural environment subsequently die because they are insufficiently adapted to the new environment. In some cases where farmed mink have been released into the British countryside there was a subsequent marked decline in the numbers of native voles. Hence, there has been debate as to whether the act of 'freeing' the animals is beneficial. Some organisations assert that they have placed liberated animals in good homes.

<sup>28</sup> Henshaw D (1989) *Animal Warfare* (London: Fontana Press).

<sup>29</sup> Matfield M (1996) The animal liberation front: terrorist attacks on animal research *Scand J Lab Anim Sci* 23: 31–5.

<sup>30</sup> For victims' accounts see the Victims of Animal Rights Extremism website, available at: <http://www.vare.org.uk/vctms.html> Accessed on: 14 Apr 2005.

<sup>31</sup> See *Huntingdon v SHAC* judgement (2004) Neutral Citation Number EWHC 1231 (QB), available at: <http://www.bailii.org/cgi-bin/markup.cgi?doc=/ew/cases/EWHC/QB/2004/1231.html&query=1231&method=all>. Accessed on 11 Mar 2005.

<sup>32</sup> Clark A (2001) Bank of last resort *The Guardian* July 2, available at: <http://education.guardian.co.uk/businessofresearch/story/0,9860,515646,00.html>. Accessed on: 14 Apr 2005.

also mounted a continuing campaign against the owners of a facility for guinea pigs used in research, based in Staffordshire. Some of these protests are lawful, although there have also been a number of unlawful activities carried out by unidentified campaigners. These include desecration of the grave and stealing of the body of a relation of the Hall family, who operate the breeding facility, in October 2004.<sup>33</sup> We return to the issue of animal-rights-related violence and its implications in Chapters 14 and 15 (Chapters 14 and 15 (paragraphs 14.63 and 15.47–15.50).

### ***The origins of the UK Animal (Scientific Procedures) Act 1986***

- 2.25 In the early 1970s, the Council of Europe set up an *ad hoc* committee of experts to draft a convention to establish guidance for animal research. This body developed a framework for legislation and guidelines for laboratory animal housing, which was transposed with very few additions into Directive EEC 86/609 of the European Economic Community (the predecessor of the EU) in 1985. The Directive required Member States to adopt national legislation, or similar controls, on animal research in the light of its provisions (see paragraph 13.3).<sup>34</sup>
- 2.26 Meanwhile, pressure for new legislation had been growing in the UK.<sup>35</sup> The combination of the impending Directive EEC 86/609 and the willingness of the Home Office Minister at the time to respond to concerns about the age of the 1876 Act led to the drafting of a bill in 1985. CRAE formed an alliance with the BVA and the scientific charity FRAME (see Box 2.4). Working together, these organisations had a strong influence on the drafting of the Animals (Scientific Procedures) Act (A(SP)A), which was passed in 1986.<sup>36</sup> The cornerstone of the Act, which is described in more detail in Chapter 13, is the cost-benefit assessment,<sup>37</sup> which focuses on an evaluation of the likely scientific benefits to be gained from a research proposal against the likely adverse effects to the animals, although these are not the only factors that are taken into account (see paragraph 3.58–3.60 and 13.16).
- 2.27 In 2001, the European Commission decided to revise Directive EEC 86/609, and a Technical Expert Working Group was subsequently convened. It has recommended a number of ways in which the Directive should be revised.<sup>38</sup> These revisions, which are currently under discussion, would be binding for all EU Member States (see paragraph 13.47). They include

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<sup>33</sup> In early 2005 the owners and some of their neighbours applied for an exclusion zone around the farm, which was subsequently not granted by a judge. Instead, orders to regulate protests were imposed. The ruling judge said protesters had conducted a 'guerrilla campaign of terrorism', referring to actions taken against both staff and associates of staff. For example, it was reported that a petrol bomb and death threats had been delivered to staff and to the owners' family in March 2005. See BBC News (2005) *Activists branded as 'terrorists'*, available at: <http://news.bbc.co.uk/1/hi/england/staffordshire/4184753.stm>; BBC News (2005) *Activists 'no-go' zone rejected*, available at: <http://news.bbc.co.uk/1/hi/england/staffordshire/4356713.stm>; BBC News (2005) *Guinea pig farm's family targeted*, available at: <http://news.bbc.co.uk/1/hi/england/staffordshire/4342183.stm>. All accessed on: 14 Apr 2005.

<sup>34</sup> Directives of the EU are binding law for the EU Member States. This is not the case for Conventions of the Council of Europe, which usually have the status of multilateral treaties (see paragraph 13.39).

<sup>35</sup> In 1979, two Private Member's Bills were introduced. The Fry Bill was drafted by the RSPCA and had the support of many other animal protection groups. In contrast, the Halsbury Bill was drafted by the RDS and supported by a great number of scientific organisations. Both bills went through to the committee stage, and the Halsbury Bill stimulated the Lords to have a Select Committee examine the issue in detail. When the Conservative Government was elected in 1979, it agreed to update the 1876 legislation, which, it was widely acknowledged, was not well suited to regulating research a full century after it had been passed.

<sup>36</sup> For a more detailed discussion of the background to the A(SP)A see Ryder RD (2000) *Animal Revolution: Changing Attitudes Towards Speciesism* (New York: Berg Publishers); Radford M (2001) *Animal Welfare Law in Britain: Regulation and responsibility* (Oxford: Oxford University Press).

<sup>37</sup> Although the A(SP)A does not mention the term cost-benefit analysis, the term is commonly used to refer to Section 5(4), which states that: 'In determining whether and on what terms to grant a project licence the Secretary of State shall weigh the likely adverse effects on the animals concerned against the benefit likely to accrue as a result of the programme to be specified in the licence'.

<sup>38</sup> European Commission Directorate General for the Environment *Laboratory Animals*, available at: [http://europa.eu.int/comm/environment/chemicals/lab\\_animals/revision\\_en.htm](http://europa.eu.int/comm/environment/chemicals/lab_animals/revision_en.htm). Accessed on: 14 Apr 2005.

a formalisation of the cost-benefit assessment, which would encapsulate in European law the approach that underlies the 1986 UK legislation.

### The context of the current debate in the UK

2.28 The history of the debate on animal research in the UK has been characterised by conflict, dialogue and cooperation. It has involved campaigners, representatives of animal protection organisations, physicians, scientists, those engaged in animal care and members of the general public. Despite differences on matters such as whether or not specific types of animal research are acceptable, opinion polls commissioned by various organisations concur in their finding that most people perceive a need for more information.<sup>39</sup>

#### *The importance of openness and transparency*

2.29 The underlying assumption of most Western states is that a system of representative democracy is the most appropriate model to devise policies that are compatible with the wide range of views held by members of the public. Nonetheless, controversies remain in many areas, and parliamentarians and policy makers are required to justify their decisions, especially in areas where there is no consensus. In order to keep the public committed to democratic institutions and processes, all stakeholders need to have, as far as possible, access to relevant information (see Box 13.4). It is also necessary to offer credible and legitimate opportunities to contribute views that policy makers should consider in their decisions. An atmosphere of openness and transparency is crucial in this respect.

2.30 Until recently, most scientists were reluctant to engage with the public. Some have had concerns about the possibility of becoming victims of aggression. Others may have decided that explaining or justifying their research to lay people was unnecessary. Currently, there is a small, but increasing number of academic and industrial scientists, and scientific institutions involved in animal research who are more willing to engage in public debates about their work, particularly in relation to ethically sensitive matters. They take a proactive stance in explaining their research, the reasons for conducting it and the beneficial outcomes that they anticipate for society.<sup>40</sup> For example, the Roslin Institute, whose researchers cloned the sheep Dolly in 1996 (see paragraph 5.28–5.29), invited representatives of the press and the public to visit its laboratories, in reaction to the controversies about research involving reproductive cloning. The Institute also aims to increase knowledge about animal research among non-scientific or non-technical staff who interact with the local community. The CRO HLS has also generally increased openness. When a new senior management team was appointed in 1998, several measures were adopted in recognition of the fact that until then there had not been sufficient engagement with the public. Visits are now regularly organised and have included local groups, schools and colleges, as well as Members of Parliament. All visitors are usually invited for a tour of the animal facilities. The company has also been involved in several television documentaries in which members of staff have given interviews. We welcome such initiatives. They help to improve understanding about issues raised by animal research and reduce secrecy and lack of transparency, which are frequently associated with animal research and which pose a major

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<sup>39</sup> MORI (2002) *The Use of Animals in Medical Research*, Research Study Conducted for The Coalition for Medical Progress, p8, available at: <http://www.mori.com/polls/2002/pdf/cmp.pdf>. Accessed on: 14 Apr 2005; MORI (1999) *Animals in Medicine and Science*, General Public Research conducted for Medical Research Council, p34, available at: <http://www.mori.com/polls/1999/pdf/mrc99.pdf>. Accessed on: 7 Apr 2005.

<sup>40</sup> See, for example, RDS *Welcome to RDS Online*, available at: <http://www.rds-online.org.uk>. Accessed on: 13 Apr 2005; See also Chapter 1, footnote 5.

<sup>41</sup> See Chapter 15, footnote 16.

obstacle to informed debate. However, there is also a view that, in some instances, increased openness focuses disproportionately on the benefits of animal research, offering a 'sanitised' account which ignores the welfare implications and possible suffering of the animals.<sup>41</sup> Equally detailed information about both scientific benefits and implications of research for animal welfare is fundamental to achieving an informed debate. As a general principle, we conclude that freedom of information is essential to debate for its own sake. It would therefore be desirable for the public to have, as far as possible and subject to appropriate levels of safety for those involved in research, access to detailed information about the kinds of animal research, the number and species of animals used in specific research projects, the full implications in terms of pain, suffering and distress for the animals involved, and the intended benefits of the work. This information should be provided in a clear and accessible form. We consider ways in which such information could be supplied in more detail in paragraphs paragraphs 15.25–15.52.

### Summary

- 2.31 The justification for research involving animals has been contested for several hundred years. Since the mid-19th century, debate in the UK has intensified in parallel with the increased use of animals for this purpose. Growing levels of public concern led to the enactment of the first legislation on the subject in 1876. In the 20th century, academic discussion on the ethical justification of research involving animals, and debates bringing together stakeholder organisations, have been influential in the shaping of further legislation.
- 2.32 There is currently a broad spectrum of opinion about the ethics of conducting research on animals. A range of organisations is involved in the debate, including those representing the interests of industry and researchers, those who wish to improve conditions for animals or reduce research involving animals, and others who want an immediate end to research. Very few people resort to extreme forms of protest but their actions have had a disproportionate effect on the possibility of increasing openness in research. The current lack of openness and limited availability of balanced information appears to have contributed to mistrust. There is now increasing recognition by many stakeholders that this trend needs to be reversed.