



■ Landmarks in Animal Based Research ■ Key Moral Statements

Galen of Pergamum,
129 - 199

a Greek physician, catalogued experiments performed by Alexandrian physicians from 300BC, on differences between sensory and motor nerves and tendons.

St Thomas Aquinas
1260

declared in his Summa Theologiae that humans were unique and opposed the use of data based on vivisection on the grounds that all other animals were incapable of rationality because they possessed no mind.

Andreas Vesalius
1514 - 1564

Illustrated public lectures of anatomy with systematic non-human vivisection.

Rene Descartes
1595

exaggerated the Christian centered prevalent humanist attitude into a mechanistic philosophy, the concept of beast-machine, which provided a convenient ideology for early vivisectionists.

William Harvey
1628

Demonstrated the circulation of blood using animals, extrapolated the results to humans and showed the value of vivisection for comparative physiological investigation.

Robert Boyle
1627-1690

Robert Hooke
1635-1703

Richard Lower
1631-1691

The first people to record their genuine concern for the welfare of some of their experimental subjects were professional physiologists based on a moral objection to perceived cruelty

Alexander Pope
1688-1744

Samuel Johnson
1709-1784

English essayists and poets who argued that animals may feel pain and that this ought to be taken into consideration.

Jeremy Bentham
1748

The beginnings of the theory of utilitarianism. Shift from an anthropocentric world view towards animals' capacity to suffer.

Francois Magendie
1783

Determined that many bodily processes resulted from the cofunctioning of several organs. This was the basis of modern physiology and set in train numerous invasive animal-based experiments.

Humphrey Primatt
1776

extended the principle of justice beyond the sphere of humans, to include all animals. The anthropocentric world view was being challenged by the notion that animals ought to be protected for their own sake. Whether an animal had a soul or not was no longer an issue.

August Comte
1798

Development of Positivism: differentiation between empirical investigation and ethical values.

Marshall Hall
1790

pioneered welfare issues from within science by proposing that physiological procedures be regulated in a way that took into consideration the suffering of animals.

William Morton
1847

Further work on the anaesthetic properties of ether led to technically sophisticated surgical procedures.

Crawford Long
1842

Discovered the anaesthetic properties of ether.

Claude Bernard
1813

Demonstrated that a precise approach to experimentation must involve the study of one parameter while holding other variables constant.

1875

The UK House of Commons was presented with a Bill aimed at regulating vivisection, and a contrary Bill allowing for a regulation-free environment resulting in the appointment of a first Royal Commission of Inquiry to investigate laboratory procedures involving animals which found no instances of animal abuse but recommended that animal experimentation be regulated. The Cruelty to Animals Act received royal assent in 1876.

Charles Darwin
1871

Publication of The Descent of Man and Selection in Relation to Sex and Expression of the Emotions in Man and Animals.

1847

RSPCA changed its position to objection to painful procedures being performed on animals.

1871

British Association for the Advancement of Science published guidelines that aimed to minimize suffering and discourage conducting experiments of dubious scientific merit.

1882

Discovery of bacterium responsible for tuberculosis.

Discovery of diphtheria antitoxin which reduced infant mortality from 40% to 10%.

1902

Extraction of the first hormone.

1909

Chemical treatment for syphilis.

1906

Continuous lobbying by anti-vivisection societies resulted in the Second Royal Commission on Vivisection. However, due to medical advances described and the advent of World War I which focused the UK society's attention in other directions, the public were less keen to condemn all experimentation.

1920

Frederik Banting
Charles Best

Isolation of insulin.