Incentives for Reform

Those who defend vivisection claim that without animal experiments, research would grind to a halt. Yet experience shows this is not the case because scientists quickly devise new techniques to achieve their objectives. For instance, Britain's former prohibition on the use of animals to practice microsurgery led to the development of human placental tissue as a viable substitute.[17] Another example is the testing of vaccines for potency, an area in which animal experiments have traditionally been considered essential. However, such an approach is of no value in assessing pneumonia vaccines because the causal organisms are generally not virulent for laboratory animals. Once again the lack of an animal model provided the incentive to develop a successful alternative, this time based on chemical analysis and studies with human volunteers.[30]

Unfortunately, continued reliance on outdated animal experiments has delayed the development of safer test systems which could more reliably protect the public. This has proved a serious mistake because wherever sufficient effort has been made to develop alternatives to specific animal tests, the result has improved reliability, sensitivity and reduced costs. One example is cited by the medical journal **Lancet** which notes[33] that "in recent years many animal tests for the safety of viral vaccines have been replaced by cell culture tests which are more sensitive and reliable." In the case of carcinogenicity tests (to detect cancer-causing substances), the high cost and long duration of animal experiments means that it will be impossible to assess the tens of thousands of largely untested chemicals currently in use. Only the quicker and more sensitive test tube techniques which have emerged in recent years[34] have the potential to cope with the problem.

It is clearly in the interests of both humans and animals that vivisection is stopped so that the energy and skill of scientific investigation is directed into better and safer channels. Governments need to provide strong incentives (such as the reallocation of funds from animal experiments) to ensure that medical research concentrates on the study of people, and alternative systems no longer remain underdeveloped. Only then can we expect medical science to achieve its full potential.

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