

Noteworthy Quotes

from leaflet produced by Doctors and Lawyers for Responsible Medicine

"We use a method (vivisection) which continues to lead to terrible mistakes, which kills thousands of people...none of which can be predicted under animal laboratory conditions...I have had talks with many doctors and scientists, who are perfectly convinced that animal testing is dangerous, not only for the animals, but also, and most of all, for human beings...It is only, I believe, by consolidating the link-up of doctors against animal experiments with lawyers and politicians that we have a fair chance of achieving real progress."

Dr Madeleine Petrovic, Doctor in Law, Austria

"Drug companies plainly should not be issued with patents to develop products which are based on animal experimentation...Patents and patent law are all to do with the drug industry wanting to be able to use animals because it is a cheap short circuit for them. The issue is not just about animals; it is about the whole of our condition now..."

Michael Mansfield, QC, Britain

"Epidemiology, computers for the construction of mathematical models, and cell and tissue cultures in vitro, are three fundamental methods in modern biomedical research. But running parallel with them (and partly derived from them) are many others which awaken a new hope: the hope that biomedical research may already be on the way to a radical renewal."

Professor Pietro Croce, MD, pathologist, Italy.
Member, College of American Pathologists.

"Freed from the error of vivisection, future researchers will be able to base medical research on a genuinely scientific foundation...gradually restoring to medicine that scientific quality that is today usurped by vivisectionist error."

ibid.

"Vivisection is rooted in error, and when the truth becomes known it will disappear."

Dr Max Mader, GP, Graz, Austria, 1908

"My own conviction is that the study of human physiology by way of experiments on animals is the most grotesque and fantastic error ever committed in the whole range of human intellectual activity."

Dr G.F. Walker, *Medical World*, Dec.8, 1933

"The idea, as I understand it, is that fundamental truths are revealed in laboratory experimentation on lower animals and are then applied to the problems of the sick patient. Having myself trained as a physiologist, I feel in a way competent to assess such a claim. It is plain nonsense."

Sir George Pickering, Regius Professor of Medicine at the University of Oxford *British Medical Journal*, Dec. 26, 1964

"There is no comprehensive animal model for humankind...The truth is, and always has been, that the first clinical use of a new medication in human patients provides the first reliable clues as to what can be expected of it. Pre-marketing research on animals is a lottery; post-marketing surveillance comes too late for the first human victims of side-effects."

Dr Peter Mansfield, GP, Founder President of 'Doctors in Britain against Animal Experiments'. *Animal Experimentation in Medicine: the Case Against*, May 1990

"The end of animal experimentation is in sight. With its ending a great evil will be lifted from the earth, with untold and far-reaching benefits to health and life on this planet."

Dr Andre Menache, MRCVS, Israel
from *New Scientist* 22 May 1999, p. 61

"Some countries, though not Britain, have a national centre to focus and drive the development of alternative techniques. According to a British Medical Association survey, 92 per cent of doctors want more

effort put into developing alternatives, yet the practical input from the government and research councils to this initiative continues to be negligible.”

Dr Gill Langley, MA, PhD (Cantab), MIBiol
from Dr Hadwen Trust *Annual Review 2000*

“I wholeheartedly support the Dr Hadwen Trust’s research into new ways to treat terrible human illnesses such as cancer, because no animal experimentation is involved. As we move into a new century, this approach, showing compassion for both humans and animals is surely the way to go.”

Dr Jane Goodall, primatologist
from Dr Hadwen Trust *Millennium Review*

“The practice of the vivisection of living animals stands condemned by its very inhumanity...The fact that intellectual and educated men are engaged in this pursuit is no evidence of its rightfulness and value. Intellectual and educated men have been guilty of the greatest crimes in history.”

Dr Walter Hadwen, physician, 1923
from booklet produced by the Humane Society of the United States “Experts’ Statements on Dissection”

“From the perspective of a physician involved in clinical practice, education and research, I have come to the conclusion that killing and dissecting animals is not only unnecessary but also counterproductive in the training of physicians and scientists.”

David O. Wiebers, MD, neurologist

“My own experiences as a life sciences student, research assistant and veterinarian have convinced me that dissection has little relevance to learning about life processes.”

Eric Dunayer, VMD, veterinarian

“Biological science curricula in which dissection of animals is required selects and has selected for a population of students who regard animals as disposable tools. This is probably why many biologists, biology educators and health care professionals do not even think of considering using methods of teaching and

research in which animals are not harmed.”

Gloria J. Binkowski, VMD, veterinarian
from information sheet produced by Europeans for Medical Advancement (EFMA)

“Researchers mislead the public by claiming that transgenic animal models (genetically altered animals for research) overcome the weakness of inter-species extrapolation (using data from animal studies for medical research).”

Dr Ray Greek, MD
from *The Guardian (UK), Wednesday July 5 2000*

“Monkeys are immune to herpes B while humans die from it. Humans’ diet can result in clogged arteries while dogs can eat anything without having to worry about a bypass operation...The only people calling for more animal experimentation, in light of the knowledge that has come from the human genome project, are those who will profit financially from more animal experimentation. Consider the source.”

Dr Ray Greek, Susan Green, EFMA
from 1997 Animal Aid report *Human Tissue: the neglected resource*

“I have always supported the view, on both scientific and humane grounds, that the use of human tissue for research is preferable to the use of animals.”

Professor Fox, University of Manchester Medical School

“I still believe strongly that wherever possible human tissue is available for research, this should be used preferentially to the use of animals...”

Paul Townsend, Plastic Surgeon, Frenchay Hospital, Bristol

from *Liberating Science*, Animal Aid’s manifesto for humane research

“With people and animals often responding quite differently to drugs and disease, there is the constant risk of misleading predictions...For all our sakes, more reliable methods must be introduced.”

Dr Robert Sharpe, former scientific advisor to
Animal Aid

“...it underrates the ingenuity of researchers to suggest that medical progress would have been seriously impeded had animal experiments been illegal, although a different strategy would have been required. It is the skill of the scientist to find a way round the intellectual, technical and ethical limitations to investigation.”

Harold Hewitt, former animal researcher.

“Knowledge of how HIV disrupts human white blood cells has led to an in vitro method of assessing new drugs, which are added to the cells to see if they prevent damage caused by the virus. Human studies have also shown how HIV is transmitted, providing the evidence to prevent AIDS. In contrast, animal researchers have consistently failed to induce the disease, even in chimpanzees, the animals considered closest to us.”

Dr Robert Sharpe

from 'Genetic Prediction: What are the Limits?', *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences*, vol. 32, Issue 4, December 2001 pp. 619-33

“Drugs are processed by a large number of distinct metabolic pathways (which are likely to have evolved to combat dietary toxins), the individual efficiency of which is commonly polymorphic and exhibits Mendelian inheritance. Most people take medicines for one reason or another, and, disturbingly, adverse drug reactions are the fourth leading cause of death in the USA (Wolf and Smith, 1999). Although the approach has not yet been validated, it may be cost-effective to undertake population-wide characterisation of individual pharmacokinetic profiles to anticipate general patterns of drug resistance and toxicity... ”

It has been known for some time that humans and chimpanzees share about 98.5% of their DNA sequence in common (Pääbo, 1999). This sounds impressively similar, but put another way, this is 18-30-

fold greater than the variation amongst humans and implies that humans and chimps differ at some 45 million individual nucleotides. Initial surveys indicate that the sequence encoded by corresponding (orthologous) genes differs between chimp and human in at least 60% of proteins (Eyre-Walker and Keightley, 1999).”

Andrew O.M. Wilkie, Weatherall Institute of Molecular Medicine, Oxford University from *The Times* (UK), July 30, 2002

'Danger mouse' by Jerome Burne

*Writing recently in the journal *Science*, Professor Walter Willett, of Harvard School of Public Health, said:*

“Modifiable behavioural factors, including diet, being overweight, inactivity and smoking, account for 70 per cent of strokes and colon cancer, 80 per cent of heart disease and 90 per cent of adult onset diabetes.”

from the *Seattle Post Intelligencer*
<http://www.seattlepi.com/> Letters to the Editor, Thursday August 8th 2002

“No matter how sophisticated our methods of animal study become, they still continue to fail because of profound interspecies variations in anatomy, physiology and biochemistry.

...properly prescribed prescription drugs remain the fourth leading cause of death in the United States. If animal tests were accurate predictors of how drugs will affect humans, the number of these fatalities would be much, much lower. Medical research is simply stuck in a bureaucratic rut, continuing the way it did when we had far fewer options. With great precision, we can now study human cells and tissues, document autopsy findings, analyze the results of epidemiological studies and carry out large-scale clinical studies using human subjects.

And, let's not forget: The diseases killing most North Americans -- heart disease, stroke and cancer -- require not a miracle drug, but more effective strategies to help patients break the habits (especially smoking and poor diets) that cause these problems in the first place.”

Neal Barnard, M.D. President Physicians Committee for Responsible Medicine Washington, D.C.

from *British Medical Journal* www.bmjjournals.com

7 August 2002

"There are hardly any systematic reviews, meta-analyses or retrospective, historical evaluations which can be drawn upon to either support or refute the practice of using animals as models of human disease.

The Lords' assertion of the value of animal experimentation rests on the increase in effective human treatments that have arisen at the same time as the expansion of animal experimentation. This correlation does not mean that animals were necessary for the development of these treatments.

The move within medicine to become more 'evidence based' needs to be replicated in research. In other words, if there is uncertainty about a particular paradigm or methodology - in this case the efficacy of using animals as models of human disease - evidence needs to be gathered so that claims about its efficacy can be supported or refuted. If there is no evidence to support the use of a particular methodology and only custom and practice sustain it, then that methodology should be discarded. At present we are in the ridiculous situation whereby animal tests are used as the gold standard by which so called 'alternatives' are judged, yet there is virtually no evidence to support the use of the animal tests themselves.

In the few cases where systematic reviews of animal experiments have been conducted serious doubts have been raised about the methodologies used."

Dr Pandora Pound, Research Fellow, University of Bristol Department of Social Medicine, Canyng Hall, Whiteladies Road, Bristol BS82PR
Professor Shah Ebrahim

from *Cambridge News*, 25 September 2002

LETTERS

"...there is not enough scientific evidence to suggest that animal experiments are necessary for the development of clinical treatments for illnesses such as strokes, Alzheimer's and Parkinson's diseases.

For example, animals, including primates, have been used for over a hundred years in stroke research, yet the only two treatments of proven effectiveness in acute stroke - aspirin and admission to a stroke unit - did not depend upon animals for their development.

Given scarce resources and the availability of more effective non- animal research, it is hard to see how the primate laboratory can be in the public interest."

Dr Pandora Pound

from website of Europeans for Medical Advancement (EFMA):

<http://www.curedisease.net/>

"... people will look back on the 20th Century and wonder what on earth we were doing, having chimpanzees and monkeys, dogs and cats and rats and mice in labs, they will be amazed we ever did it... It's not very efficient... even if people had no interest in animal welfare there would still be very good reasons for working towards replacing animal studies and animal tests, so what we're doing is good science... we're all winners except the people who breed and sell laboratory animals."

Professor Michael Balls, European Centre for the Validation of Alternative Methods

(ECVAM) Leading Edge, BBC Radio 4 March 2000

from "Campaigning for alternatives to harmful animal use in veterinary education: A student's struggle", presented to the 1st InterNICHE conference "New teaching approaches in the life sciences", 21-22 Feb. 2001, Brussels.

"I believe that the arguments in favour of harming and killing animals in education are strongest in the field of veterinary surgical training. The fact that we were able to complete our veterinary surgical training without harming or killing any animals for teaching purposes suggests to me that such harmful animal usage is unjustifiable in all areas of education."

Andrew Knight, BSc., BVMS, Director of Education with Animalearn

from a 1992 letter to Students for Ethical Science (re rat/guinea pig undergraduate biochemistry experiments):

"There is absolutely no reason why mitochondria isolated from plant material cannot be used..."

"I vehemently believe that no animals are necessary in courses such as zoology, biochemistry, physiology and pharmacology."

Dr M.D Brownleader, alternatives advisor to UK NICHE (now incorporated into InterNICHE)

from 'Animal Experimentation - the medico-legal alibi', a paper on website of Doctors and Lawyers for responsible Medicine <http://www.dlrm.org/>

"...the best guess for the correlation of adverse reactions in man and animal toxicity data is somewhere between 5% and 25%."

Dr Ralph Heywood, past scientific director of Huntington Research Centre (U.K.), speaking at a 1989 scientific workshop held at the Ciba Foundation

from *Bred to Suffer*(a 2002 Animal Aid report)

"80-90% of cancers are preventable."

C.S. Muir and D.M. Parkin, *British Medical Journal*, 5th Jan 1985, pp. 5-6

"...it is virtually impossible, to produce atherosclerosis in a dog" even when vast amounts of cholesterol and saturated fat are added to their diet.

W.C. Roberts, *American Journal of Cardiology*, vol. 66 p.896

(re research on strokes) *"...over-reliance on such animal models may impede rather than advance scientific progress in the treatment of this disease."*

Researchers at the Mayo clinic, in D.O. Wiebers et al., *Stroke*, vol. 21 pp1-3

"...it has been calculated that the incidence of strokes could be cut by 39% through a daily reduction of 3 grams of salt in an individual's diet."

M.R. Law et al., *British Medical Journal*, 6th April 1991 pp. 819-24

"God knows we've cured mice of all sorts of tumours. But that isn't medical research."

Thomas E. Wagner, senior scientist at Ohio University's Edison Biotechnology Institute in *The Columbus Despatch*, 20th March 1998, in *Sacred Cows and Golden Geese*

"Giving cancer to laboratory animals has not and will not help us to understand the disease or to treat those persons suffering from it...Laboratory cancers have nothing in common with natural human cancers."

Dr Albert Sabin, developer of the polio vaccine, as quoted in *Vivisection Unveiled* (1997) Jon Carpenter Publishing, p.47

"For every 30-40 drugs effective in treating mice with cancer, only one is effective in people."

D.J. Galloway, *Cancer Surveys*, vol. 8 pp. 169-88

"...for the great majority of disease entities, the animal models either do not exist or are really very poor."

C. Dollery in *Risk-benefit in Drug Research*, ed. Cavalla, 1981 p.87

"Animal responses to carcinogens are so different from ours that it took 50 years to induce lung cancer in laboratory animals forced to breathe tobacco smoke."

The Lancet, 25th June 1977 pp. 1348-9

"While conflicting animal results have often delayed and hampered advances in the war on cancer, they have never produced a single substantial advance either in the prevention or treatment of human cancer."

Dr Irwin Bross, former director of the Sloan-Kettering cancer research institute (the largest in the world), Testimony before US Congress, 1981 cited in *Sacred Cows and Golden Geese*

"What good does it do you to test something (a vaccine) in a monkey? You find five or six years from now that it works in the monkey, and then you test it in humans and you realise that humans behave totally differently from monkeys, so you've wasted five years."

Atlanta Journal Constitution, 21st September 1997

"Using an archaic methodology like animal models to combat a 21st century disease is more than foolish, it is immoral."

Dr Ray Greek, President of Americans for Medical Advancement, in 'Monkeying with their lives, and ours...' NAVS USA newsletter 2001, www.navs.org

...many experts agree that "there is no successful animal model of Alzheimer's Disease".

Journal of the American Medical Association, vol. 277 pp. 813-17

"Cambridge University) researchers claim their intention was to advance treatment of Huntington's Disease, even while admitting that the brain damage they inflicted (on marmosets)" did not replicate the pathology of Huntington's Disease".

A.L. Kendall et al., *Brain*, vol. 123, part 7 pp. 1442-58

"Recent epidemiological studies suggest a link between Alzheimer's disease and consumption of dairy products."

H.C. Hendrie et al., *Journal of the American Medical Association* vol. 285 pp. 739-47

Other research shows a link between garden pesticide usage and Parkinson's disease.

New Scientist, vol. 168: 2264 p. 16

"...none of the (animal) models is fully trustworthy as an imitation of clinical epilepsy".

Fisher, R.S. *Brain Research Reviews* vol. 14 pp. 245-78

"One might expect that these animals (bred to have human cancer genes) would mimic human symptoms, not just the genetic mutations. In fact, that is usually the exception, not the rule."

T. Jacks, *Science*, 7th November 1997, vol. 278 p. 1041

"The history of cancer research has been a history of curing cancer in the mouse. We have cured mice of cancer for decades, and it simply didn't work in humans."

Dr Richard Klausner, director of America's National Cancer Institute
Los Angeles Times, 6th May 1998

"Are humans to be regarded as behaving biochemically like huge, obese, inbred cancer-prone rodents?"

Philip Abelson, editor, *Science*, 1992, vol. 255 p. 141

"...conclusions drawn from animal research are likely to delay progress, mislead and do harm to the patient."

Dr Moneim Fadali, MD, FACS, Cardiovascular and Thoracic Surgeon, USA
Animal Experimentation, A Harvest of Shame, Hidden Springs Press, 1996

"...the moral is that animal model systems not only kill animals, they also kill humans."

Dr Irwin Bross, *Fundamental and Applied Toxicology*, November 1982

"...adverse reactions to animal-modelled medicines are now the fourth largest cause of death in America, accounting for two million people being hospitalised every year - 100,000 of whom die."

Journal of the American Medical Association, 1998, vol. 279, pp. 1200-1205 & 1216-17

"The figure for the UK (re above) has been estimated as 70,000 deaths per year."

New Scientist, 19th September 1998
from *Bred to Suffer*

According to Dr Ray Greek, our unscrupulous dependence on animal data means these deaths "are not accidents; they are inevitabilities."

Sacred Cows and Golden Geese

"Sadly, young doctors must say nothing, at least in public, about the abuse of laboratory animals, for fear of jeopardising their career prospects."

E.J.H. Moore, *The Lancet*, 26th April, 1986 p. 975

"There are, in fact, only two categories of doctors and scientists who are not opposed to vivisection: those who don't know enough about it, and those who make money from it."

German surgeon Werner Hartinger, 1989 *Sacred Cows and Golden Geese* p. 77

"If you have information on human genes, what's the point of going back to animals?"

British pharmaceutical company Pharmagene
New Scientist 31st August 1996, vol. 151 p. 4

"Virtually the whole of modern medical knowledge was created through the study of autopsies."

Asimov, Asimov's Biographical Encyclopaedia of Science and Technology,
second edition, Doubleday and company,
1982

The animal model is "an archaic paradigm whose scope peaked 100 years ago. It must be replaced if we expect to improve the quality of human life."

R. Greek, *Specious Science*, Continuum
Publishers, 2002

from <http://www.telegraph.co.uk/opinion>

"Forty-four thousand people die in Britain every year due to adverse drug effects, despite the fact that drugs are thoroughly tested in animals."

Claude Reiss, Alzheimer' R&D, Paris
from *Why Animal Experiments Must Stop* by Dr Vernon Coleman

"To claim that because scientists have performed animal experiments and scientists have made valuable breakthroughs there must be a link between the two is as silly as claiming that because scientists have drunk coffee or tea the consumption of caffeine rich drinks must be an integral part of scientific progress."

Vernon Coleman, former GP, 1991

from *Winning the Medical and Scientific Arguments* (2000) by Dr Vernon Coleman

"Animal experiments delay progress unnecessarily. After doctors had observed that people who smoked tobacco seemed prone to developing cancer animal experimenters spent years making dogs and monkeys smoke cigarettes in an attempt to establish a link between tobacco and cancer in animals. Much to the commercial profit of the tobacco companies this link turned out to be extremely difficult to prove. As a result doctors and politicians were discouraged from providing warnings about the dangers of smoking tobacco for many years and millions of people may have died unnecessarily."

from the *Journal of American College of Surgeons* vol.195 Issue 5 (November 2002)
Pages 627-629

"In the canine models, 47 necks with 52 attempted cricothyroidotomies were inspected and mapped by the investigators. Four specimens had multiple tracheotomy sites: three had two and one had three. If these multiple attempts are excluded from analysis, 13 of the 43 cricothyroidotomies in the canine models were misplaced (30.2%). Cricothyroidotomy placement in human cadavers was correct in 27 of 28 attempts (96.4%)...It is imperative that cricothyroidotomy, a high-risk procedure, be taught in an appropriate model to best prepare students to perform it in a life-saving situation."

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"Animal studies are done for legal reasons and not for scientific reasons. The predictive value of such studies for man is meaningless - which means our research may be meaningless."

Dr James D Gallagher, Director of Medical Research at Lederle Laboratories in *Journal of the American Medical Association*, 1964

from 'Alternatives to Animal Research' at <http://www.neavs.org/betterscience/FINALALTWEBSITE.htm>

"Many toxicologists and regulators do not want to question the value of the methods they currently use."

Michael Balls, Ph.D., former Director, ECVAM,
2002

"Regulators appear to be more willing to accept new animal tests which have not been validated than non-animal tests which have."

Michael Balls, Ph.D., former Director, ECVAM,
1998

"Behind all of this there lies a profoundly irrational bias in favor of in vivo tests."

William Russell, Ph.D., founder of modern alternatives movement, 2003

"The use of experimental animals on the present scale is a temporary episode in biological and medical history."

Nobel Prize winner Sir Peter Medawar

"There is also a general consensus that resistance to the identification, development, adoption and promotion of humane alternatives reflects several attitudes and biases, which are not mutually exclusive. These include, but are not limited to:

- *blind acceptance of in vivo methods and animal models*
- *lack of support (financial and professional) for development and validation of alternatives and basic toxicological research*
- *anachronistic regulatory mandates, tradition and political barriers to acceptance of validated alternatives*
- *poor quality of comparative in vivo and relative absence of human data for use in validation studies*
- *fears of litigation by liability attorneys and insurance companies who prefer historical in vivo data regardless of its validity*
- *psychological factors rooted in ignorance of in vitro methods and general fear of change*
- *unrealistic expectations of current in vitro methods and the validation process*
- *poorly worded testing mandates and regulatory inertia*
- *preference for check-box or six-pack testing programs rather than chemical-specific requirements*

- *lobbying by biomedical trade associates and animal suppliers with vested financial interests in the continuation of animal experimentation and testing"*

John McArdle, PhD

Drugs prescribed in Britain are suspected of causing over 19,000 adverse effects annually - probably only one tenth of the true figure (BMJ, 1988, vol.296: pp. 761-764) - all of which are 'tested' on animals.

"An awareness is growing that new methodologies are required to gain insight into important questions of human health and disease. Animal experimentation has not provided the hoped-for and much-needed answers to these vital questions."

Dr Murry Cohen, past chairman of the MRC (Medical Research Modernisation Committee) in the U.S., speaking in Tel-Aviv, May 1990 at the International Conference "Future Medical Research Without the Use of Animals: Facing the Challenge"

"(Animal) models often simulate the disease by presenting similar symptoms, but may be misleading if the underlying causes are different; the procedure then throws up false leads, e.g. compounds that protect the laboratory animal, but when tested clinically are found not to be active in man."

Ganellin, C.R. (1994) 'Past approaches to discovering new drugs as medicines' in *Medicinal Chemistry - Principles and Practice*, King, F.D. (ed.) Royal Society of Chemistry, ch. 13, pp. 189-205

REFERENCE

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