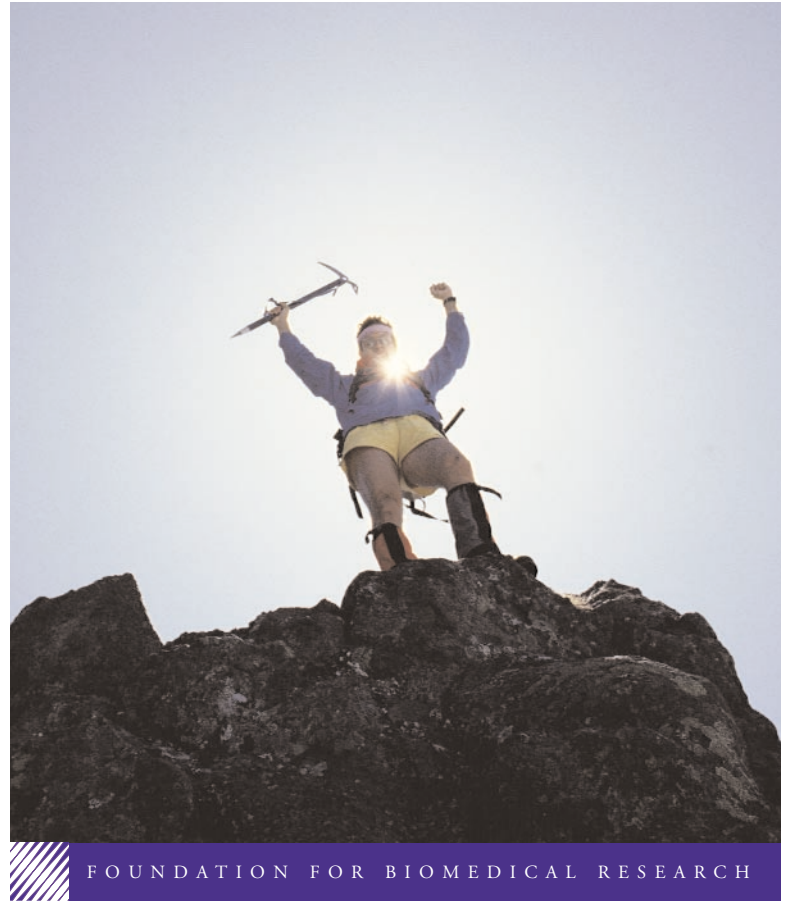




Suite 200
818 Connecticut Ave NW
Washington, DC 20006
(202) 457-0654 Ph
(202) 457-0659 Fax
www.fbresearch.org



The Proud Achievements of Animal Research

And The Consequences of Halting It



Animal research has played a vital role in virtually every major medical advance of the last century—for both human and animal health. From antibiotics to blood transfusions, from dialysis to organ transplantation, from vaccinations to chemotherapy, bypass surgery and joint replacement, practically every present day protocol for the prevention, treatment, cure and control of disease, pain and suffering is based on knowledge attained through research with animals.

The anti-research element of the animal rights movement frequently claims that the results of animal studies can't be applied to human health. However, physicians and researchers *overwhelmingly* agree that animal systems provide invaluable and irreplaceable insights into human systems because there are striking similarities between the physiological and genetic systems of animals and humans. The essential need for animal research is recognized and supported by medical societies and health agencies around the world. Concrete proof of its validity and usefulness can also be found in the vast body of Nobel Prize winning work in physiology and medicine that has been based on animal studies.





Since 1900, modern medicine has boosted the average life span in the United States by almost 30 years.

In 1999, infant mortality in the USA—a key indicator of the nation’s health—hit a record low with seven deaths per 1,000 live births compared to 55 deaths per 1,000 live births in 1935.

Many diseases that once killed millions of people every year are now either treatable or have been eradicated altogether. Immunizations against polio, diphtheria, mumps, rubella and hepatitis save countless lives and the survival rates for many major diseases are at an all time high thanks to the discovery of new drugs and the design of sophisticated medical devices and surgical procedures.

Animal research for animal health has also resulted in many remarkable life saving and life-extending treatments

for cats, dogs, farm animals, wildlife and endangered species. Pacemakers, artificial joints, organ transplants and freedom from arthritic pain are just a few of the breakthroughs made in veterinary medicine thanks to animal research. Recent advances in equine neonatal medicine has given foals (one in ten of which is born prematurely), a fighting chance at life. Dogs, cats, sheep, cattle, deer, foxes are also living longer, happier and healthier lives thanks to vaccines for rabies, distemper, parvo virus (infectious diarrhea), infectious hepatitis, anthrax, tetanus and feline leukemia. New treatments for glaucoma, heart disease, cancer, hip dysplasia and traumatic injuries can save or extend or enhance the life of a beloved pet and exciting new reproductive techniques are helping to preserve and protect threatened species.



The Proud Achievements

of Animal Research

Smallpox has been eradicated from the face of the earth.

Polio has been eradicated from North America and is being successfully treated elsewhere in the world. Each year over 30,000 American children are protected from this crippling disease through vaccinations.



Each year, 4.5 million Americans survive a stroke without permanent disability.

Whooping cough is under control but in the event of an outbreak, those exposed have a good chance of survival.

Juvenile (or Type One) Diabetes affects almost one million Americans. Thanks to their daily insulin shots, a productive life is achievable.

Over 553,000 men and women have coronary bypass surgery each year—and consequently live to celebrate many more birthdays.

Some 1.29 million patients undergo heart catheterization each year—and prevent potentially fatal heart attacks.

Nearly 50 million Americans with high blood pressure have lower incidences of heart attack, stroke and kidney failure, thanks to effective medication.

More than 1,200 leukemia patients, many of them children, receive life-saving bone marrow transplants each year.



Each year, renal dialysis extends the lives of 230,000 patients with end-stage kidney failure.

Eighty per cent of the children with acute lymphocytic leukemia now have a fighting chance at life, thanks to CML, an effective, newly developed drug.

The 420,000 patients who receive hip and knee replacements each year no longer face confinement in wheelchairs or great difficulty and pain when walking.

More than 1.5 million people get cataract surgery every year to prevent vision loss in at least one eye.

Imminent death is no longer a certainty for the 13,418 organ recipients who received kidney transplants last year; the 4,597 who received liver transplants or the 2,231 who received heart transplants.

Thirty thousand Americans living with ALS (amyotrophic lateral sclerosis), or Lou Gehrig's Disease, benefit from new, helpful medications.



Some 2.5 million Americans with epilepsy have effective medication to control seizures.

Seventeen million Americans living with asthma have fast acting medication to relieve mild asthma attacks and save their lives during acute attacks.

The Consequences of Halting Animal Research

The consequences of halting animal research are unthinkable: people and animals would get sick more often, stay sick longer and die much sooner than they do today.

New surgical techniques to repair congenital heart defects would have to be abandoned or tried for the first time on children. Approximately 35,000 infants are born with such defects.



Some 30,000 young Americans with cystic fibrosis would have little hope of a normal life span.

A cure for diabetes would almost certainly be beyond our reach.

The development of all promising techniques to restore function to those paralyzed by spinal cord injuries would stop.

The 350,000 people with multiple sclerosis would lose the promise of new treatments for the symptoms of this degenerative disease.

Thousands of people with schizophrenia would be institutionalized as a result of lack of understanding of the disease and its treatment.

Methods to prevent many types of cancers would never be found since theories about genetic and environmental causes cannot be tested in humans.

The 72,000 Americans with sickle cell disease would have little hope for a cure in the near future.

Any of the 28 million hearing impaired Americans might never benefit from electronic stimulation of the ear.



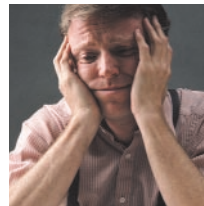
There would be next to no hope of finding a safe and effective vaccine for AIDS.

Researchers would have little hope of discovering the physical causes of alcoholism which afflicts an estimated 14 million Americans.

It would not be possible to test new products, like artificial blood, which show promise for saving the lives of critically injured trauma patients.

Researchers may never understand the intricacies of Alzheimer's Disease and the prognosis for the four million Americans with Alzheimer's would be bleak.

The development of urgently needed new drugs to treat cancer, including new anti-angiogenesis drugs that shrink tumors by cutting off their blood supply would be severely curtailed.



There would be little hope of developing a treatment for the 1.5 million Americans with Parkinson's disease.

Research on fetal stem cells, which may one day be used to reverse symptoms of a wide range of illnesses ranging from Alzheimer's to liver failure, would come to an abrupt halt.

There would be no vaccines in the near future to prevent acute respiratory diseases caused by pneumonia, meningitis, new strains of influenza, respiratory syncytial virus or any number of other chronic diseases that disproportionately threaten infants, children and the elderly.

Here is a short list of important medical advances achieved through animal research and the animals to which we give credit.

- 1726 First Measurement of Blood Pressure (*Horse*)
- 1790 Vaccine for Smallpox Developed (*Cow*)
- 1880 Vaccine for Anthrax Developed (*Sheep*)
- 1888 Vaccine for Rabies Developed (*Dog, Rabbit*)
- 1902 Malarial Life Cycle Discovered (*Pigeon*)*
- 1905 Pathogenesis of Tuberculosis Discovered (*Cow, Sheep*)*
- 1919 Mechanisms of Immunity Discovered (*Guinea Pig, Horse, Rabbit*)*
- 1923 Insulin Discovered (*Dog, Fish*)*
- 1928 Pathogenesis of Typhus Discovered (*Guinea Pig, Rat, Mouse*)*
- 1929 Vitamins Supporting Nerve Growth Discovered (*Chicken*)*
- 1932 Function of Neurons Discovered (*Cat, Dog*)*
- 1933 Vaccine for Tetanus Developed (*Horse*)
- 1939 Anticoagulants Developed (*Cat*)
- 1942 The Rh Factor Discovered (*Monkey*)
- 1943 Vitamin K Discovered (*Rat, Dog, Chick, Mouse*)*
- 1945 Penicillin Tested (*Mouse*)*
- 1954 Polio Vaccine Developed (*Mouse, Monkey*)*
- 1956 Open Heart Surgery and Cardiac Pacemakers Developed (*Dog*)
- 1964 Regulation of Cholesterol Discovered (*Rat*)*
- 1968 Rubella Vaccine Developed (*Monkey*)
- 1970 Lithium Approved (*Rat, Guinea Pig*)
- 1973 Animal Social and Behavior Patterns Discovered (*Bee, Fish, Bird*)*
- 1982 Treatment for Leprosy Developed (*Armadillo*)
- 1984 Monoclonal Antibodies Developed (*Mouse*)*
- 1989 Organ Transplantation Advances Developed (*Dog, Sheep, Cow, Pig*)*
- 1992 Laproscopic Surgical Techniques Developed (*Pig*)
- 1995 Gene Transfer for Cystic Fibrosis Developed (*Mouse, Non-Human Primate*)
- 2000 Brain Signal Transduction Discovered (*Mouse, Rat, Sea Slug*)*
- 2001 Promising Drug for Prevention of AIDS Developed (*Monkey*)

*Denotes Nobel Prize winning work.



The Foundation for Biomedical Research (FBR) is a nonprofit, educational organization that was established in 1981 to improve the quality of human and animal health by promoting public understanding and respect for the humane and responsible use of animals in scientific and medical research.

To make a tax-deductible contribution or for more information contact:

Suite 200
818 Connecticut Avenue NW
Washington, DC 20006

Phone: (202) 457-0654
Fax: (202) 457-0659
www.fbresearch.org