

Animal Research: The Foundation of Modern Medicine

Research involving animals such as dogs, cats, ferrets, and minipigs has helped advance treatments, vaccines, and medicines that protect the health of humans and pets.

MEDICAL PROGRESS DEPENDS ON RESPONSIBLE RESEARCH

For decades, responsible animal research has played an essential role in advancing medical science for people and pets. While researchers continue to develop and support alternatives that reduce and refine animal use, no technology can yet fully replicate the complexity of a living biological system.

Dogs and cats represent only a small percentage of animals involved in biomedical research, but their contributions have been significant. Animals in research have helped scientists better understand disease, evaluate safety, and develop lifesaving treatments.

BREAKTHROUGHS IN HUMAN AND ANIMAL HEALTH

Research involving animals has led to major medical advances, including:

- Insulin used by millions of people living with diabetes
- Defibrillators that restore normal heart rhythm
- Pacemakers, heart stents, and bypass procedures that have reduced deaths from heart disease
- Medications for heart disease, asthma, depression, infections, and high blood pressure
- Vaccines that protect against deadly diseases
- Therapies for Alzheimer's, Parkinson's, epilepsy, and other neurological diseases
- Cancer immunotherapies and CAR-T treatments that help the immune system fight tumors
- Veterinary therapies that help dogs, cats, and other companion animals live longer, healthier lives

WHY ANIMAL STUDIES ARE STILL REQUIRED

Before new medicines can be approved for use, researchers and regulators must understand how they behave in a whole living system. Animal studies help identify possible side effects, determine safe dosage levels, and evaluate whether treatments are safe and effective enough to advance to human or veterinary patients.

Even emerging medical technologies such as gene therapies and regenerative medicine continue to rely on animal studies to evaluate safety and effectiveness before reaching patients.

Computer models, cell cultures, and other non-animal methods continue to improve and play an important role in reducing animal use. However, they cannot yet fully replace the biological interactions that occur within a living body. For this reason, animals remain a required part of many safety and efficacy studies designed to protect the health of people and pets.

PROTECTING FUTURE INNOVATION

In modern biomedical research, animals continue to play a pivotal role in the responsible development of safe and effective treatments that improve and save lives. Abruptly eliminating carefully regulated animal research would slow medical progress, delay the development of future therapies, and impact advances that benefit both humans and animals alike.



Treatments and Technologies Developed with Animal Research

HUMAN HEALTH

- Insulin for diabetes
- Pacemakers and defibrillators
- Chemotherapy and cancer immunotherapies
- Asthma inhalers
- Antibiotics and vaccines
- Heart and blood pressure medications
- Treatments for depression and anxiety

ANIMAL HEALTH

- Flea, tick, and heartworm preventives
- Vaccines that protect pets from deadly disease
- Arthritis and pain medications for pets
- Cancer therapies for dogs and cats