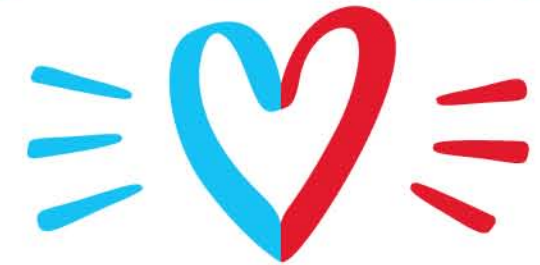


Love ANIMALS?



SUPPORT ANIMAL  
RESEARCH™



FEATURING  
DR. TEMPLE  
GRANDIN

**Love animals? Support animal research. (whaaat!?) Is it possible to do both?**  
If someone you know is dying of cancer, yes. If a pet animal is suffering from a rare disease, yes. And if you work in research, of course! (More about that later.)  
But if you're on the fence or haven't thought about it, please turn the page →





### 3 BENEFITS OF ANIMAL RESEARCH

- Fertility drugs to get pregnant
- Prenatal testing for birth defects
- Chemotherapy for canine cancer

### INTRODUCTION

Animal testing for medical advances (not for new beauty products) is a good thing.

It's a way to make sure the prescription drugs we take or give to our pets are effective and safe.

It's a method of perfecting surgical procedures, such as deep brain stimulation so epileptic patients can have a more normal life.

And yes, it's a really complicated issue.

That's why we put together this booklet. To help everyone understand the goals, benefits, and regulation of animal research.

We hope you'll take the time to read it from cover to cover.

Some people think animal research is conducted exclusively for our benefit. Actually it helps companion animals live longer, too!







### HEART DISEASE

Heart valve replacement surgery has saved hundreds of millions of people and it's the result of animal research.



### VISION LOSS

A surgical procedure perfected on animals is a common fix for cataracts, the world's leading cause of blindness.



### MUSCULAR DYSTROPHY

In research with dogs, an experimental drug shows promise in slowing damage to muscles. And potentially growing new muscles!



## HOW ANIMAL RESEARCH HELPS PEOPLE

When you're ill or injured, virtually everything the doctor, nurse, paramedic, pharmacist, or other health care provider can give you was made possible by animal research.

These medications, medical devices, surgeries, treatments, and therapies include the following:

Anesthesia, Antacids, Antihistamines, Asthma Inhalers, Athlete's Foot Cream, Blood Pressure Medicine, Chemotherapy, Cholesterol Drugs, Cold Medicines, Contact Lenses, CT Scans, Deep Brain Stimulation For Parkinson's, First Aid Creams, Heart Transplants, Heart Valves, Heart-Lung Machine, Hemorrhoid Creams, Hip Replacement Surgery, HIV Drugs, Insulin For Diabetes, Kidney Dialysis, Kidney Transplants, Laxatives, Migraine Medicines, Pacemakers, Penicillin, Poison Ivy Cream, Prostate Cancer Medicines, Tick-borne Disease Antibiotics, Transplant Rejection Drugs, Ulcer Medications, plus Vaccines for Cervical Cancer, Meningitis, Mumps, Tetanus, and Whooping Cough.

Phew. That's a lot to be grateful for. But there's much more! We'd have to use a font <THIS SIZE> to list all the other procedures and medications.





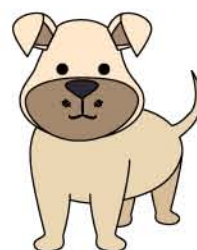
### BLINDNESS

The pet parents of a dog who lost his sight to cancer enrolled him in an experiment to test a new drug. His sight was restored overnight!



### CAT HEART DISEASE

An incurable cardiac condition may soon be curable. Using a new drug tested on lab animals, scientists made the defect disappear!



### CANINE BONE CANCER

Osteosarcoma is extremely aggressive. Animal research has led to a new treatment that's more than doubled the number of survivors!



## HOW ANIMAL RESEARCH HELPS PETS

Animal research has improved and saved the lives of countless companion animals.

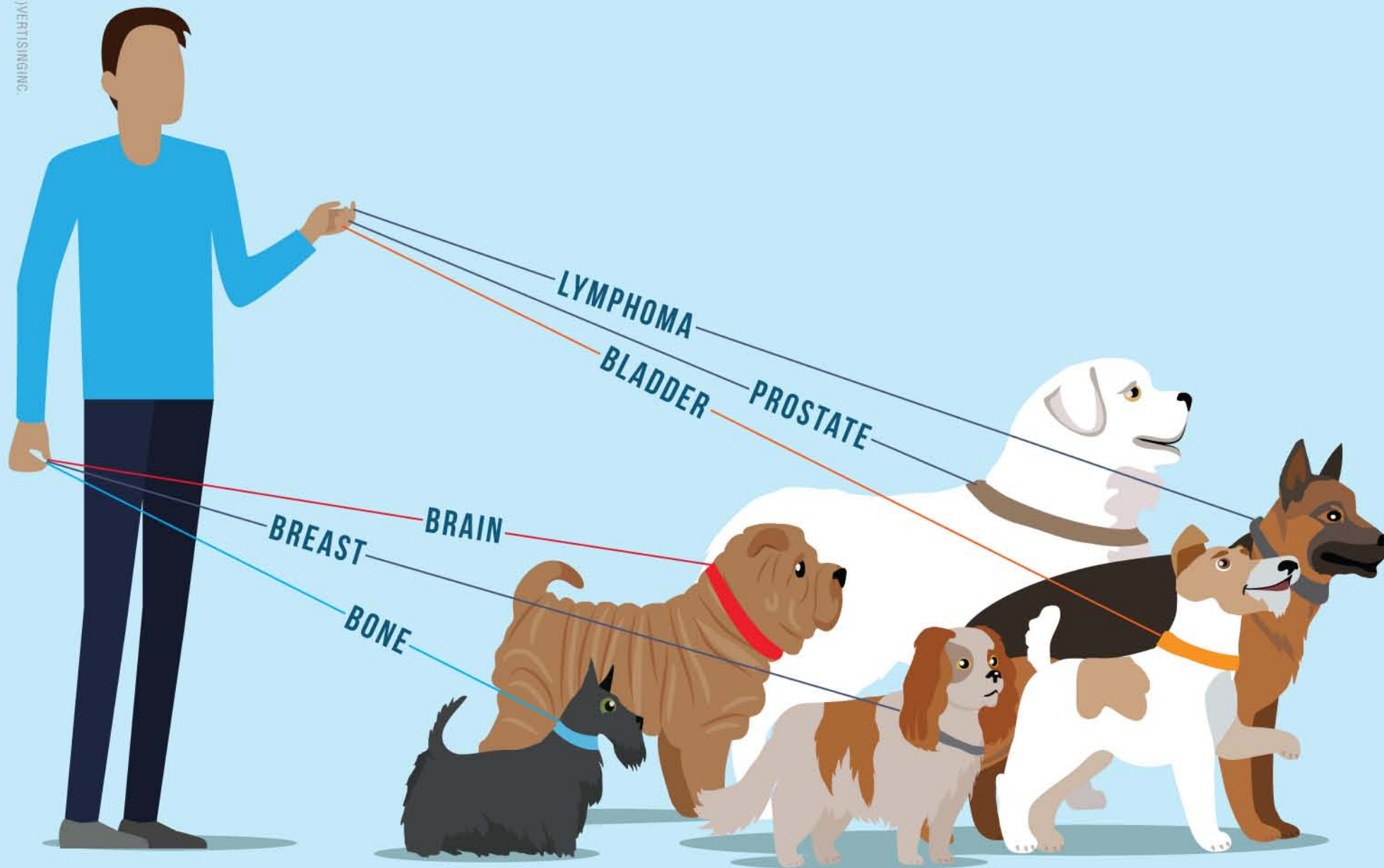
Some prime examples include:

- Vaccines to prevent distemper, feline leukemia, infectious diarrhea (parvovirus), infectious hepatitis, kennel cough, cat flu, rabies, and tetanus.
- Veterinary medicines for kidney problems, cancer, heart disease, infections, and pain.
- Technologies like ultrasound, CT, and MRI to help diagnose potentially deadly diseases.
- Life-saving emergency care for dogs and cats hit by cars.
- Advanced surgical procedures for organ transplants, pacemakers, and to treat joint and ligament distress in cats and dogs.
- Nutritional products to help puppies and kittens grow into healthy dogs and cats.

Following successful heart bypass surgery, a Labrador retriever gets a cardiac ultrasound.







## Some Cancers We Have in Common With Dogs

### MEDICAL CONDITIONS PEOPLE AND PETS SHARE

The list is a lot longer than you think.

Allergies, anemia, arthritis, and asthma.

Botulism, bronchitis, cataracts, deafness, diabetes, epilepsy, and glaucoma.

Heart disease, hemophilia, hepatitis, hypertension, infertility, and influenza.

Leukemia, lung disease, lupus, Lyme disease, malaria, and measles.

Narcolepsy, nerve damage, rabies, rubella, scoliosis, and skin diseases.

Tetanus, tuberculosis, ulcers, and Yellow fever.

And of course the big C.

Did you know cancer is the most common cause of death in dogs?<sup>1</sup>

Today, physicians and veterinarians are working together—sharing research results and other information—to find a cure for both species.<sup>2</sup>

With cancer, early detection is key! So take your best friend for a “nose-to-tail” checkup every 12 months.

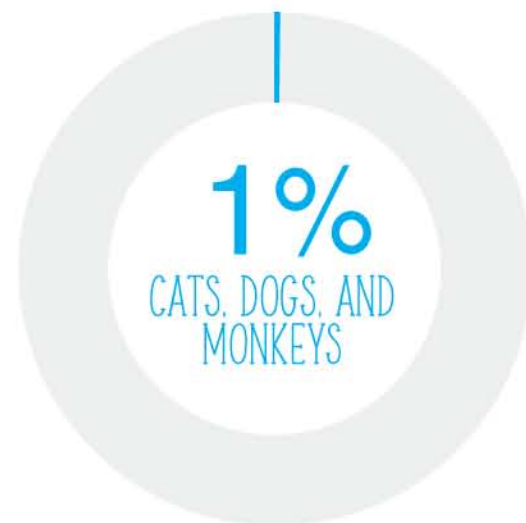
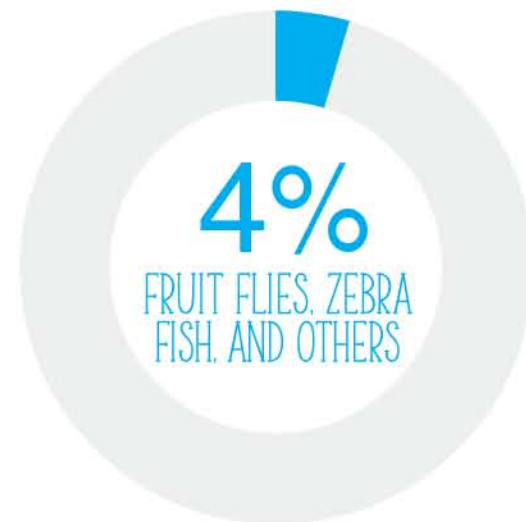
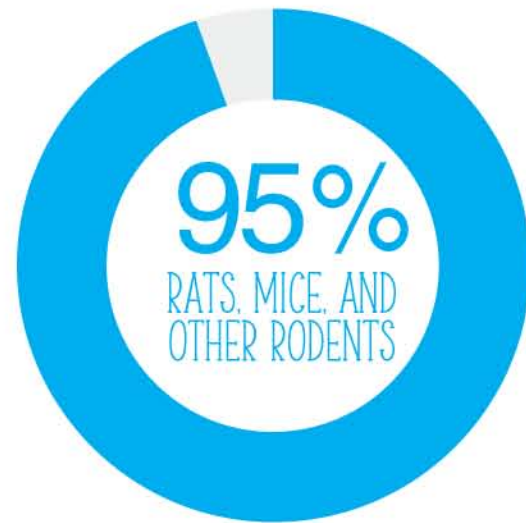


To see what's going on in America's research institutions, turn the page →



## LAB ANIMALS BY SPECIES

APPROXIMATION



## LIVING CONDITIONS

- Living spaces are carefully designed to meet the specific needs of every lab animal species.
- Specially trained veterinarians oversee their well-being and medical care.
- Temperature is monitored 24/7, including weekends and holidays.
- Lab animals drink clean, filtered water.
- The air they breathe is significantly cleaner than the air inside our homes.
- They eat healthy because an expert nutritionist monitors their diet.
- Primates regularly snack on fruits and veggies cut into bite-sized pieces.
- And environmental enrichment (like the example shown here) helps promote psychological well-being.

Humane and responsible animal care standards are detailed in *The Guide for the Care and Use of Laboratory Animals*, issued by the National Academy of Sciences' Institute for Laboratory Animal Research.<sup>3</sup>





## LAB PEOPLE ♥ THEIR LAB ANIMALS

From the associate animal care technician to the Nobel Prize-winning scientist plus everyone in between, all make the physical, physiologic, and behavioral needs of lab animals a top priority.

Why?

- Because it's good science. Well-treated animals provide more meaningful and reliable research results. More reliable research results could reduce the number of animals needed for research.
- Because treating lab animals with the most dignity and compassion possible just comes naturally!
- And because it's the law.

Research scientists actively observe the three Rs:

- **REDUCE** the number of animals used in testing.
- **REFINE** procedures to minimize pain and distress.
- **REPLACE** animals with alternatives when possible.





## AMERICA'S RESEARCH REGULATIONS ARE AMONG THE STRICTEST ON THE PLANET

Research institutions must meet multi-layered regulatory requirements of the federal Animal Welfare Act and the Public Health Service (PHS) Policy.

Among its many mandates, anesthetics must be used for potentially painful procedures. And painkillers are used after surgery unless the research doesn't allow it.

For example, in a study of pain relief for cancer patients, the animals endure some discomfort and distress.

Each institution must have an Institutional Animal Care and Use Committee (IACUC) to review research proposals and to ensure the use of animals is necessary.

Scientists must explain why alternatives such as computer simulations won't work. And must reassure committee members their research doesn't duplicate previous studies unnecessarily.

There are more than 9,000 strains of laboratory mouse models available today to help scientists study human disease and human health.





IMAGE SUPPLIED BY UNDERSTANDING ANIMAL RESEARCH / WELLCOME TRUST

## ANIMAL RESEARCH WITH DOGS

The number of dogs involved in research is small (less than 1/2 percent). But their impact on human and animal health is enormous.

- 8 of the 10 most common prescription drugs were developed with dogs.
- Many treatments initially developed for us also help our pets.
- Today, a number of research studies benefits a lot more animals directly.

“But can’t you just use rats and mice?” you may ask. No, not really. The path from concept to cure is complicated.

After using cell cultures, tissue samples, and computers, investigators must add animal models to their study.

Most start with mice and rats. When they get positive results, they advance to an animal model that more closely resembles humans. That’s where dogs usually come in.

We share more than 4 out of 5 genes with dogs. Which is why canines are so essential to medical progress.

Dogs are more than man’s best friend. They’re also pretty good research partners. These beagles live together and enjoy playtime every day!





## ANIMAL RESEARCH WITH CATS

Cats have helped scientists gain a better understanding of cardiac disease, diabetes and vision loss.

Now, researchers are conducting studies with cats to conquer Alzheimer's, cancer, and more than 200 inherited diseases.

(And because these diseases are common to both species, medical breakthroughs may benefit both!)

True or False?

The number of cats used in research and testing has dropped by more than 70% since numbers have been kept.

TRUE. This impressive statistic is true. And it's worth celebrating! Because researchers are just as concerned as you are about reducing the number of animals in research.

We look forward to the day when all cats will be in laps not labs. But to test the safety and efficacy of better cat foods, medications, and therapies, a relatively small number is still needed.

Did you know research with cats helped create cochlear implants—those tiny devices that give children with hearing loss a better chance of keeping up with other students and of fitting in? Well, now you know :)





## ANIMAL RESEARCH ALTERNATIVES

Scientists in the US, UK, and Germany have been working on this challenge for decades. Which is why there are more non-animal methods now than ever before!

For many safety and toxicity tests, sophisticated tissue models and cell cultures have replaced guinea pigs, rabbits, and mice.

“Organs on microchips” can be used in toxicity testing, disease research and evaluating new drugs.<sup>4</sup>

And with state-of-the-art computers, scientists test new drugs and biologics.

But supercomputers running sophisticated computer programs can't accurately predict the weather, let alone accurately predict everything a new drug will do once inside you.

(sigh)

So for the time being, research with animals is still the surest path to discovering ways to prevent diabetes, better treatments for heart disease, and a cure for cancer.

Industry experts predict organ microchips may fully replace animal models in 15-20 years.





## SUMMARY

Research scientists have made medical discoveries with animal models that would not have been possible otherwise.

We think they deserve our support and trust.

If you agree, please share this booklet with family and friends.

And if you post your thoughts online, be sure to add [#SupportAnimalResearch](#)

## REFERENCES

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Many research institutions encourage staffers to adopt retired research dogs through vetted partners like *Homes for Animal Heroes* and proven programs such as *Lab To Leash*, a part of *Beagle Rescue League*.





**Love Animals? Support Animal Research.**  
Dr. Temple Grandin does! She's an animal welfare expert and professor of animal studies at Colorado State University.



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