

A Virtual Conversation with
Dr. Henry S. Friedman, Neuro-oncologist

ANIMAL RESEARCH

PERCEPTIONS

VS

REALITY



A young girl's hair and part of her scalp are violently ripped off her skull in a freakish carnival ride accident.

A playful puppy's hip is destroyed when he jumps out of the window of a moving car.

Maybe you saw these news stories. Maybe you know both survived. But there's one thing you probably don't know anything about – the role animal research played in their recoveries.

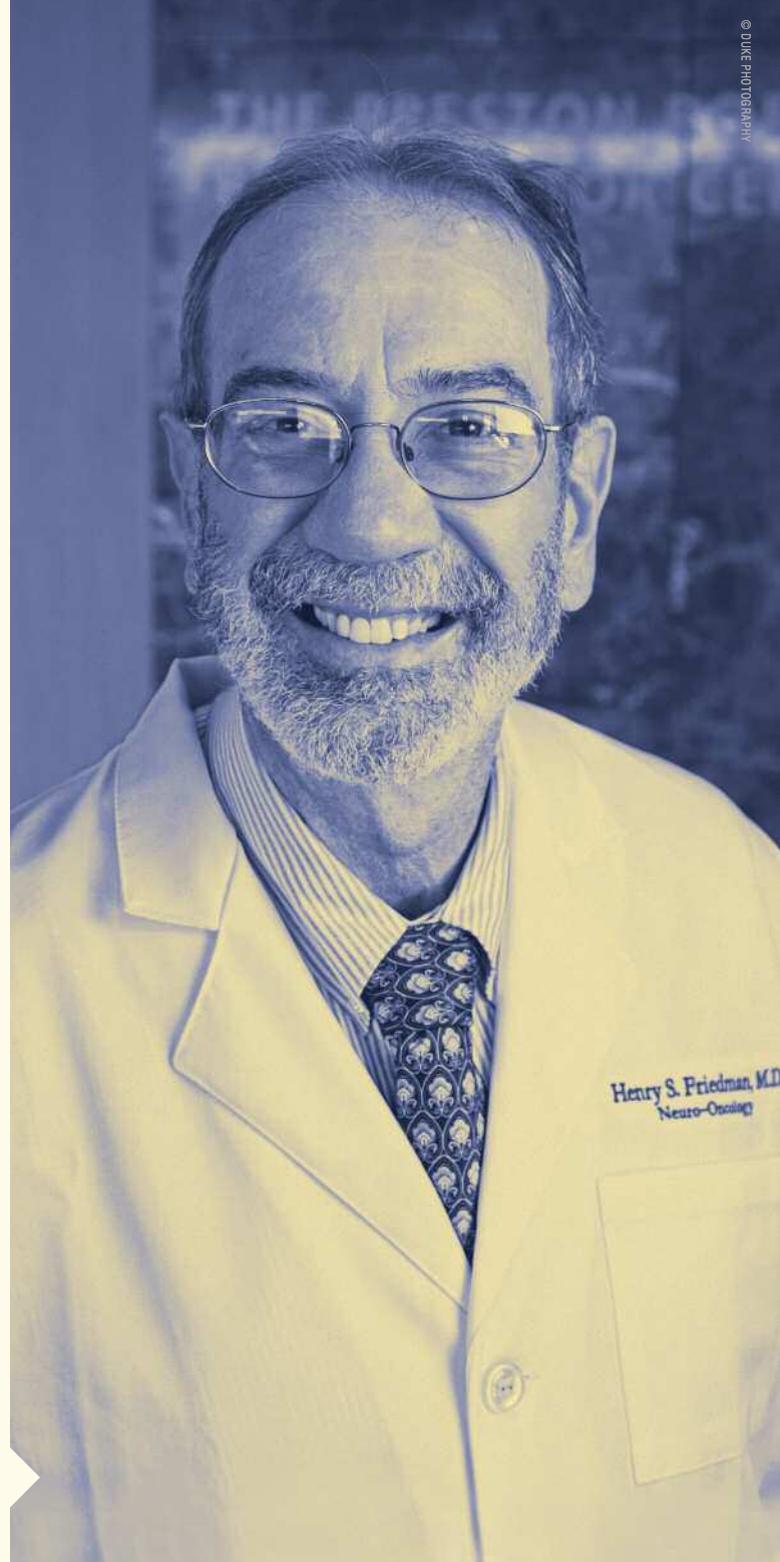
Animal research benefits all of us. And our four-legged family members!

Virtually everything a doctor, nurse, veterinarian, veterinary technician, paramedic, or pharmacist can give the injured or sick was made possible by animal research.

This includes modern medications, state-of-the-art diagnostic equipment, plus advanced surgical techniques, treatments, and therapies.

If you find this news surprising, keep reading. Because there are a lot of misconceptions about animal research. Permit me to address them.

Dr. Henry S. Friedman, preeminent physician, loves animals and supports animal research.



PERCEPTION



Animal research is speciesism because it only benefits humans...

REALITY



Animal research benefits animals too!

Here are just a few examples:

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

A cancer survivor. And his mom.



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PERCEPTION



Animal testing is a waste of money because it can't predict how drugs will affect humans...

REALITY



While it's true lab animals aren't small furry humans, in general there's no better model of a living human than a living animal.

Basically all mammals are very much alike. We all have brains, hearts, blood, and bones tied together by a nervous system.

"Nine out of 10 experimental drugs fail in human trials," some people say.

I prefer to say, "One out of 10 are a success."

What's more, whether positive or negative, the end results are helpful.

Anytime animal testing can prevent a new drug or surgical technique that doesn't work from going forward, it literally saves lives.

Some benefits of animal research.



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, a new drug shows promise in slowing damage to muscles. And potentially growing new muscles!

PERCEPTION



Lab animals are kept in small cages, alone and afraid...

REALITY



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.

- **Living spaces are designed to meet the specific needs of every lab animal.**
- Temperature and humidity are monitored 24/7, including weekends and holidays.
- The air they breathe is significantly cleaner than the air inside our own homes.
- Lab animals drink clean, purified water and eat better than most people because meals are supervised by an expert nutritionist.
- Primates regularly snack on fruits and veggies hand cut into bite-sized pieces.

Environmental enrichment such as this playground helps promote psychological well-being.



PERCEPTION



Most experiments are done on monkeys, dogs, and cats...

REALITY



Actually, the number of lab monkeys, dogs, and cats is **JUST 1%**. (The other 99% are rats, mice, rodents, fish, insects, and others.)

But just so you know, being the least common species doesn't mean they're unimportant.

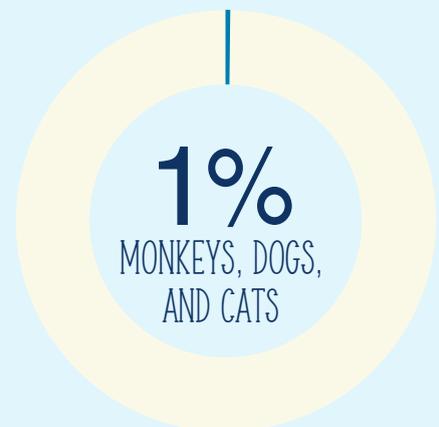
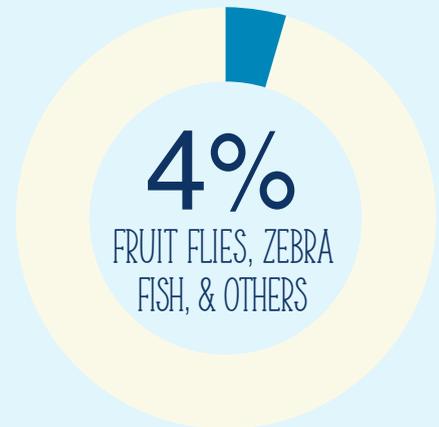
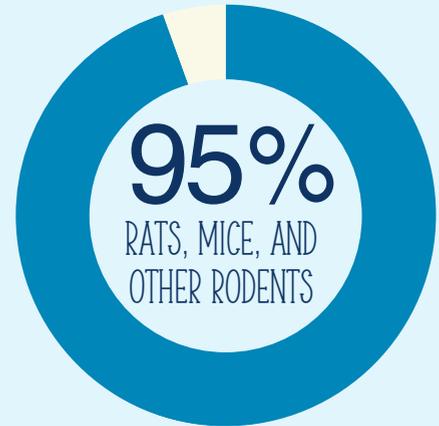
Nobel Prize-winning research with dogs helped scientists figure out why our bodies, after an organ transplant operation, reject the organ.

In a similar way, Nobel Prize-winning research with cats revolutionized our understanding of "lazy eye," a serious condition that can cause partial or complete blindness.

And today there's a critical need for nonhuman primates (mainly rhesus monkeys) in studies of Alzheimer's, Parkinson's, and a condition plaguing millions of Americans – infertility.

Laboratory animals by species.

APPROXIMATION



PERCEPTION



Lost or stolen pets are sold to research laboratories...

REALITY



A happy puppy approaches a stranger with treats and is swept away in an unmarked van.

A sleeping kitty is scooped up and dropped into a pillowcase before she can react.

Both pets have been kidnapped by a bum out to make a quick buck by selling them to an unscrupulous research lab.

You might see this in a made-for-cable-TV movie. But you won't see it in the real world.

Clinical studies require animal models from traceable and trustworthy sources to help insure valid results.

Collars with ID tags, implanted microchips, and tattoos improve chances of reuniting with a pet gone missing.



PERCEPTION



Laboratory animals experience unimaginable suffering...

REALITY



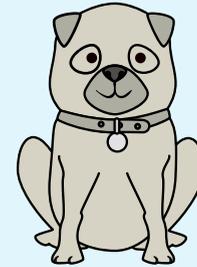
The laws to protect lab animals in the U.S. are among the strictest on the planet.

In fact, some people say they're more rigorous than the regulations covering experiments with children.

The federal Animal Welfare Act and the Public Health Service (PHS) Policy require research institutions to:

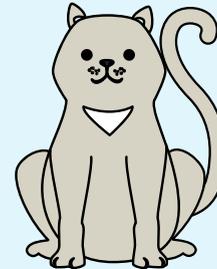
- establish a committee to discuss proposals and make sure animals are necessary;
- provide clean housing, good food, medical care, enrichment, and socialization;
- use anesthetics for potentially painful procedures plus painkillers after surgery unless the clinical study disallows it (for example in a study of pain medication for cancer patients).

Animal research benefits pets too.



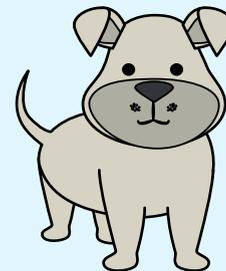
BLINDNESS

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 kitty cardiac condition may soon be curable. Using a new drug developed with lab animals, scientists made the defect disappear.



CANINE BONE CANCER

Osteosarcoma is extremely aggressive and spreads quickly. With an assist from animal research, a new treatment has more than doubled the number of survivors.

PERCEPTION



I saw an animal rights group's video of a lab animal being abused...

REALITY



I probably saw it too. Online there are all kinds of videos that claim to show abuse.

Many of these are decades old. Others recycle manipulated footage or are shrewdly staged, digitized fabrications.

And before you say it, I will: **Even one instance of bad behavior is one too many.**

People make mistakes. We're all human. But like you, when I see that type of behavior, I get angry. It's unacceptable. IT'S. AGAINST. THE. LAW.

We know every field has its share of people who are unqualified or who just don't care.

I can truly say the women and men I've met in my career are among the most conscientious and caring people on the planet.

*Did you know?
Some research institutions have created a serenity garden as a loving tribute to their four-legged lab partners.*



PERCEPTION



Some scientists enjoy torturing lab animals...

REALITY



The idea of unnecessarily inflicting pain is completely at odds with their reason for being – eliminating pain and suffering.

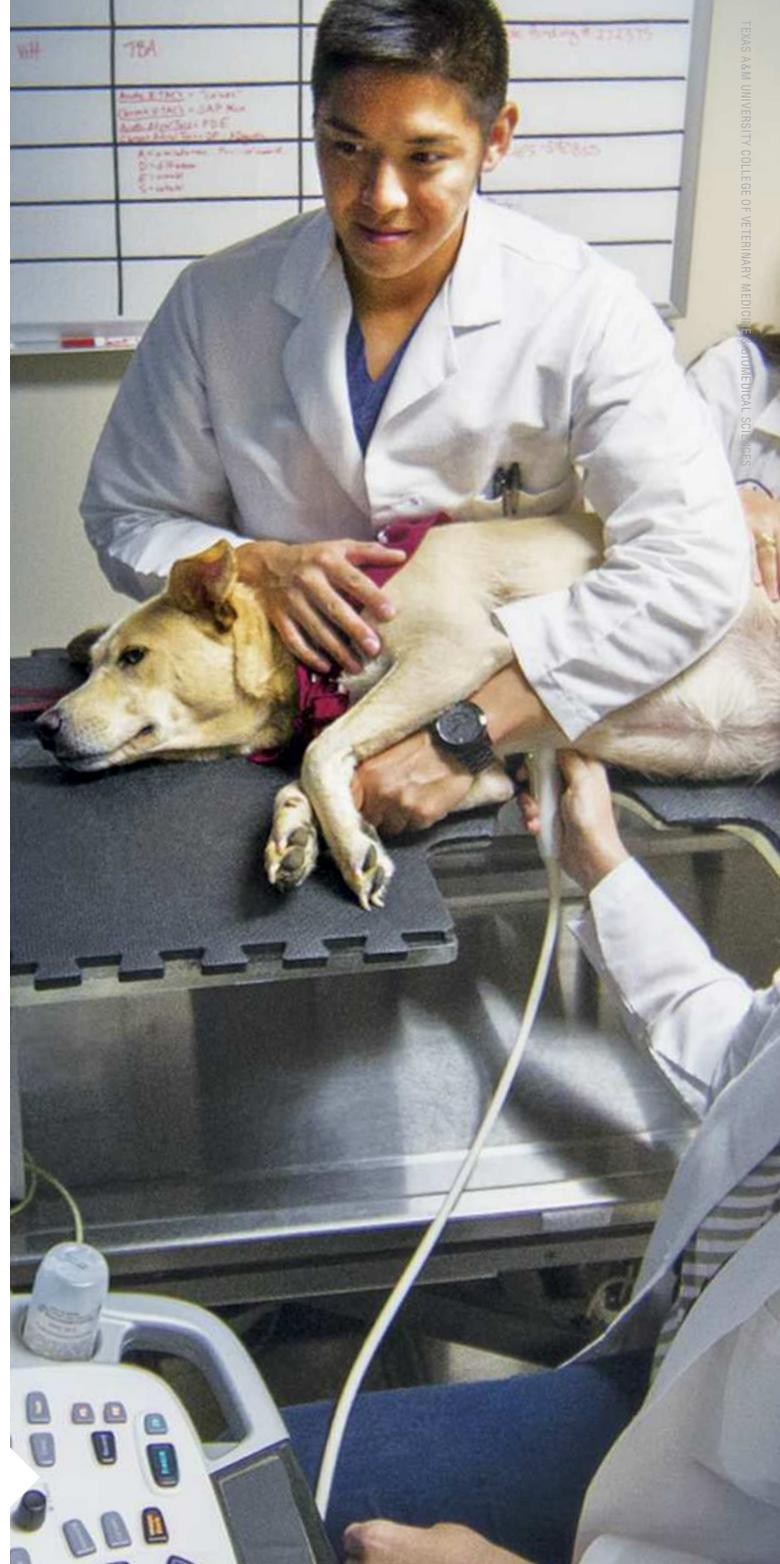
Good science depends on good results.

Good results depend on good treatment of the animals in our laboratories.

From a purely clinical perspective, distress and pain may have a negative impact on the immune system.

When you consider the fact that a scientist's credibility is directly tied to these animals, the idea of treating all of them (even tiny fruit flies) with compassion and dignity is a no-brainer.

A Labrador retriever after heart bypass surgery. To learn about other health problems animals and humans share, google "love animals support animal research."



PERCEPTION



Today we have a growing number of non-animal testing methods...

REALITY



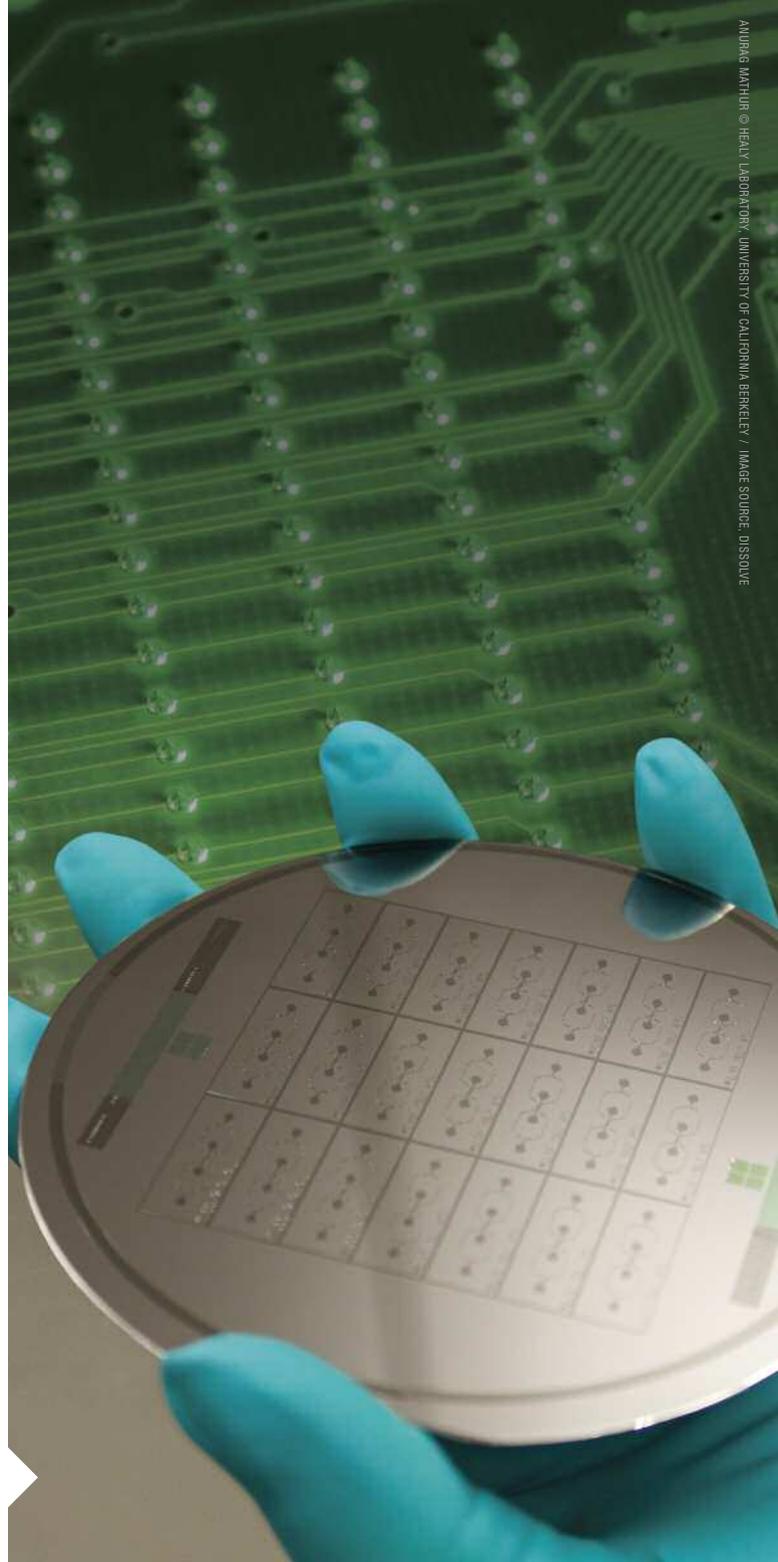
AGREED. And for the record, scientists deserve the credit. Not profiteering animal rights groups.

- Organ-on-a-chip technology (*right*) is used in some disease research and drug testing.
- Computer-based techniques such as QSARs can be used to guesstimate the toxicity of some drug compounds.
- And sophisticated computers can be used for exploratory research.

But supercomputers can't accurately predict the weather, much less predict everything a new drug will do once inside you.

So for now animal research is still a necessity.

An organ-on-a-microchip is an exciting development in its early stages. However, it's not yet a full replacement for everything that happens in a living system.



Thank you for taking time to read this back-and-forth exchange with an open mind.

It's perfectly understandable why people who adore animals say they're against animal research – especially if they've seen misleading ads from Madison Avenue.

In this brochure I've done my best to debunk the most common myths and misconceptions.

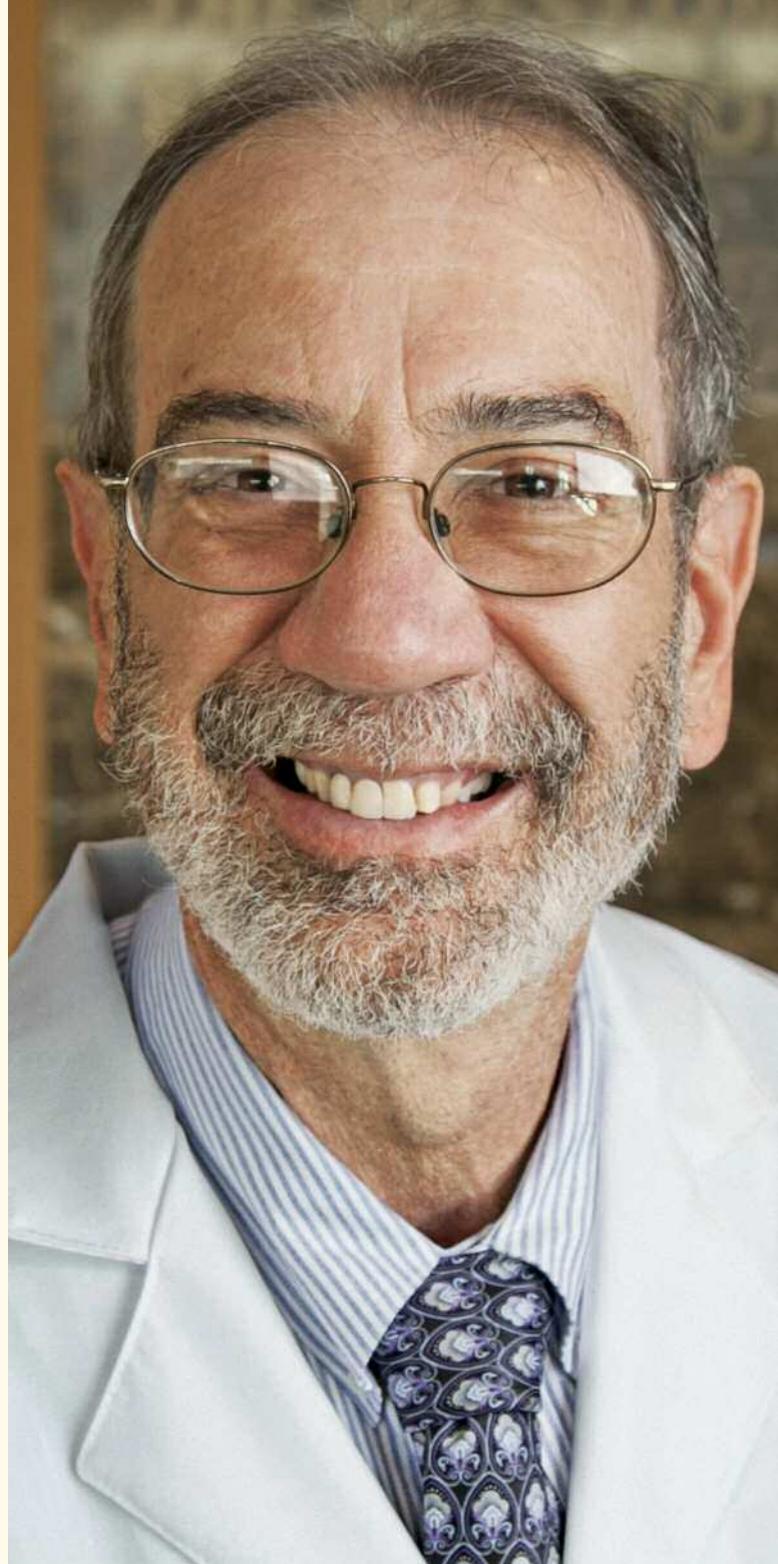
But there's simply no way I can cover them all.

If you have any other concerns, please contact the Foundation for Biomedical Research.

Their goal is to strengthen your understanding of – and support for – the research community.

Because America's scientists should be battling deadly diseases.

Not. Malicious. Falsehoods.





Dr. Henry S. Friedman, an academic adult and pediatric neuro-oncologist, has appeared three times on *60 Minutes*. He has presented extensively at both national and international meetings. And he's author of more than 500 peer-reviewed articles, reviews, and book chapters.

Henry has reviewed grants for the National Institutes of Health for more than a decade and a half, in a spectrum of different study sections.

He serves on the advisory board of many organizations, including Voices Against Brain Cancer, the Tug McGraw Foundation, Pediatric Brain Tumor Foundation, Pinnacle Care, National Children's Cancer Society, and our nonprofit, the Foundation for Biomedical Research (FBR).

ABOUT US

We're the most trusted nonprofit devoted to increased understanding of biomedical research and support for the biomedical research community in America.

We endorse humane, carefully regulated research with laboratory animals. Today, this research is essential to learning about the biology, treatment and prevention of diseases and conditions that cause suffering and death in humans and animals.

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