ADVOCACY WORKS!
How Your Voice Makes a Difference for Animals

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in this issue

3 HIT THE ROAD WITH NAVS
Humane education, sanctuary support and more! Find out what we have in store in the coming months.

9 2023 IFER GRANT RECIPIENTS
Meet the researchers who are changing modern science by making it smarter and animal-free.
Chimpanzees Have New Homes—Thanks to YOU!

The 2019 closure of the Wildlife Waystation sanctuary in southern California left more than 400 animals in urgent need of new homes, including more than 40 chimpanzees, many of whom had been previously used in biomedical research.

Working in collaboration with the North American Primate Sanctuary Alliance’s (NAPSA) “Chimpanzees In Need” initiative, NAVS has, over the past several years, provided grants totaling more than $100,000 to accredited primate sanctuaries that are receiving and re-homing these animals.

We are happy to share that, as of late 2022, all of the Waystation chimpanzees have been rescued and are now residing in accredited sanctuaries across the United States.

Caring for chimpanzees is expensive, and by accepting this influx of new residents, these sanctuaries have committed to providing decades of care. In the final phase of the “Chimpanzees In Need” campaign, NAPSA is now working to cover the first year of care for every one of the rescued chimpanzees.

Thanks to your support, NAVS’ Animal Sanctuary Assistance Program recently provided another round of substantial grants to Chimpanzee Sanctuary Northwest, The Center for Great Apes and Save the Chimps. These grants will help each of those sanctuaries with the vital first-year costs for the Wildlife Waystation chimpanzees—including Billy and Ernesta (pictured)—as they continue to adjust and thrive in their new homes.

Read about other recent Animal Sanctuary Assistance Program grants that you helped make possible on the back cover of this issue of Animal Action.
NAV is excited to take part in events throughout 2023 that will help us advance our programs and connect with like-minded people in areas as diverse as education, sanctuary and alternatives. Here’s a look at where we’re going—and what we’re doing.

**Sharing Humane Resources with Science Teachers**

Throughout the year, NAVS attends teacher conferences to introduce educators to our BioLEAP program, which features a range of offerings, including dissection alternatives grants and our brand-new high school-level curriculum, “Animal Use in Science: Exploring the 3Rs.”

- In March, NAVS attended the National Science Teaching Association National Conference in Atlanta.
- In September, we will speak to educators in our own backyard at the Illinois Science Teaching Association Annual Conference.
- And to wrap up the year, November will see NAVS in attendance at the National Association of Biology Teachers Professional Development Conference in Baltimore.

**Learning and Leading the Way Toward Smarter Science**

NAVS will be playing a role in several international gatherings of scientists, academics and other leaders throughout 2023. These meetings provide opportunities to meet with, learn from and educate our peers on issues pertaining to the advancement of the 3Rs, development and acceptance of non-animal models, and other topics.

- In June, NAVS will take part in the Society for In Vitro Biology’s annual meeting in Norfolk, Virginia. In addition to serving as the In Vitro Animal Cell Sciences Program Chair, NAVS Executive Director Kenneth Kandaras is co-organizing a plenary session on the challenges in vitro biologists face in bringing non-animal test models to market.
- That same month, NAVS and the International Foundation for Ethical Research are proud to be Silver Sponsors of the MPS World Summit in Berlin, Germany.
- Finally, NAVS is headed up to Niagara Falls, Canada in August to attend the World Congress on Alternatives and Animal Use in Life Sciences. This extraordinary international gathering is an opportunity to meet with, learn from and educate our peers on issues pertaining to the advancement of the 3Rs.

**Recognizing Exceptional High School Scientists**

Each May, NAVS presents awards to young scientists at the Regeneron International Science and Engineering Fair. Our awards go to students whose projects replace the use of animals in research or improve the lives of animals. This year’s fair is taking place in Dallas, and, in addition to recognizing student excellence, we have been invited to take part in ISEF’s Education Outreach Day, which will be attended by more than 2,500 students and teachers.

**Supporting Nonhuman Primates After the Lab**

Also in May, NAVS will catch up with old friends (and make new ones) as we head back to Atlanta for the North American Primate Sanctuary Alliance Workshop. In addition to meeting with sanctuaries that have received NAVS’ Animal Sanctuary Assistance Program grants, we will share information about the program and encourage other sanctuaries to apply. While we’re there, NAVS will tour Project Chimps, a longtime beneficiary of our sanctuary grants, to see our support in action.

Phew! That’s quite a bit—and there’s more to come! Be sure to follow us on social media for photos, videos and updates about all we have going on throughout the year.
Bills to Watch

Illinois and Maryland target unnecessary testing on dogs and cats.

Lawmakers in Illinois and Maryland are considering legislation to prohibit a testing facility from conducting certain toxicology experiments on dogs and cats. This legislation is similar to the PET (Preventing Extraneous Testing) Act that passed in California last year, and it has the potential to save hundreds of dogs and cats yearly from testing that contributes little to our knowledge of how certain chemicals may affect humans.

Maryland introduces novel legislation to fund human-relevant research.

The National Institutes of Health is the largest funder of biomedical research in the United States—but it spends only <0.1% of its grant allocation money on research to develop non-animal test methods. To boost this important area of research, Maryland lawmakers want to create a Human-Relevant Research Fund in their state to provide grant and loan assistance to researchers working to develop human-relevant alternatives to animal models.

Numerous states work to mandate the use of non-animal alternatives when available.

As non-animal, human-relevant test models continue to be developed by innovative scientists all over the world, a new challenge has arisen: how to get these new models into laboratories that currently use animals. Many states are tackling this hurdle by using the legislative process to mandate the use of alternatives:

• A 465 in New York and H 5357 in Rhode Island would prohibit the use of live animals in post-secondary education when an alternative, non-animal method or strategy exists.

• AB 357 in California, SB 97 in New Hampshire, and SB 495 in Maryland would prohibit manufacturers and testing facilities from using animal test methods when an appropriate, validated alternative test method or strategy exists.

Make your voice heard regarding these and many other state and federal advocacy opportunities at NAVS.org/advocacy.

Humane Cosmetics

10 states now have laws banning the sale of cosmetics tested on animals.
(CA, HI, IL, LA, ME, MD, NJ, NY, NV, VA)

4 states have introduced Humane Cosmetics Acts so far in 2023.
(FL, OR, RI, WA)

Post-Research Adoption

15 states now have laws requiring that dogs and cats be offered for adoption after research.
(CA, CT, DE, IL, IA, MD, MA, MN, NV, NJ, NY, OR, RI, WA, VA)

5 states have introduced post-research adoption laws so far in 2023.
(IN, MI, MO, NJ,* TX)

*NJ bill would amend their existing post-research adoption law to include ferrets.
“It’s important to use humane alternatives to animal models because they provide more accurate and relevant information for understanding human disease.”

– Kaihua (Chloe) Chen

“Ultimately, I hope that this study will demonstrate the advantages of non-animal in vitro platforms for studying cardiovascular, and more broadly, all human diseases and thereby motivate others to reduce or replace the use of animals in their work.”

– Jason Eades

“Research and development of cancer therapies have long been relying on animal models which present a set of limitations. Other than various ethical concerns, higher costs, and longer time frames, their physiology and immune systems are different from humans.”

– Yansong (Harry) Peng

“Development of physiologically relevant in vitro models offer a promising alternative to the use of animal models and may offer a paradigm shift in the current corneal wound healing research.”

– Divya Subramanian

Meet all of this year’s IFER grant recipients and learn more about their projects on page 9 of this issue of Animal Action.
Learn how your voice makes a difference for animals.
What is advocacy? In today’s world, the word advocacy may invoke images of rallies and marches. Maybe it makes you think of confrontations in the street and speeches in front of large crowds. But advocacy has many faces.

Just as important as public displays are those more private actions that tens of thousands of individuals take every day to support a cause dear to their hearts. This may include adding their names to a petition, signing a pre-drafted letter to lawmakers and pressing send, meeting with legislators in-person, or calling into their legislators’ offices.

As we look back on 2022, we reflect on a historic year in our fight to protect animals and to replace their use in laboratories. It was all made possible thanks to advocacy, in all the ways it presented itself, from thousands of NAVS supporters and like-minded individuals across the nation.

MAJOR WINS AT THE STATE LEVEL

Starting the year off strong, Virginia gave animal lovers a lot to celebrate with the passage of five bills in response to uproar following an expose on tremendous cruelty occurring at a beagle breeding facility in Cumberland, Virginia. The new laws tackle several shortcomings, including:

- making Virginia the first state to punish research facilities for violations of the federal Animal Welfare Act.
- expanding Virginia’s animal cruelty laws to cover dogs and cats bred and raised for research.
- requiring breeders who supply dogs and cats for research to adopt out, rather than kill, healthy animals that they no longer use.

Not to be outdone, many other states passed “lab-animal” friendly legislation in 2022 after hearing from our supporters. Both Louisiana and New York passed their own versions of a humane cosmetic act (HCA) to end the sale, with some exceptions, of cosmetics that were developed using animal testing. When states like California (the first state to pass an HCA back in 2018) and New York pass legislation that affects corporate practices, industry standards typically fall quickly in line to remain relevant.

All of this success in the United States, coupled with dozens of national bans worldwide, foretells the imminent end of animal testing for cosmetics. Countless rabbits, guinea pigs, mice and rats are squealing with joy in light of these victories!

We also triumphed in Iowa and Massachusetts with the passage of post-research adoption bills in 2022. Fifteen states have now passed legislation to mandate that research facilities establish an adoption program for cats and dogs who survive their research protocols, thereby giving thousands of companion animals a second chance at the lives they deserve. Post-research adoption bills that support research animals are important to advocate for as we continue to work toward a future when cats and dogs—or any animals—are no longer used as mere research instruments.

Rounding out state victories, California legislators passed the groundbreaking PET Act to become the first state in the nation to ban painful and unnecessary toxicity tests on dogs and cats for pesticides, food additives and other chemical substances. NAVS cosigned a letter of support for the PET Act, and NAVS supporters reached out to their state lawmakers to urge passage. Without the voice of advocates like you, this bill would have never made it over the finish line. Thank you!

ADVOCATES RALLY TO OPEN DOORS FOR NON-ANIMAL ALTERNATIVES

The year ended on an exceptionally high note with the passing of the FDA Modernization Act in December 2022. NAVS and our supporters vigorously advocated for this legislation since its introduction in April 2021. Passage of the act clarifies that drug manufacturers can use scientifically rigorous non-animal test methods, when available, to test drug safety. Previous language strongly guided drug manufacturers toward animal tests as the singular best path to test drug safety, even when non-animal methods were available.

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By expanding the options for drug developers to include human-relevant test methods in place of less effective animal models, the bill establishes a much-needed improvement to the drug development process. Such change is expected to speed up drug discovery and lower the cost of drugs at your local pharmacy.

Finally, as part of a spending package that passed at the end of 2022, $5 million was earmarked for the Food and Drug Administration to develop and implement drug testing methods to replace animal testing. Given that animal models fail to accurately predict drug safety and efficacy in humans more than 90% of the time, the replacement of animals in drug development can’t come soon enough.

**2023 PROJECTIONS: OUR VOICES GROW LOUDER**

More people than ever are aware that animals of all kinds are suffering in research and testing laboratories and want to join our fight to ensure the future of science is both effective and humane. In 2023 there will surely be many opportunities to get involved. Here is a look at some of the initiatives NAVS will prioritize in the year ahead.

**DEFENDING HARD-WON VICTORIES**

In 2023, we are working to safeguard some of our most important legislative victories—the 10 state humane cosmetics acts (HCAs) that have passed since 2018. At the end of 2022, Congress passed the Modernization of Cosmetics Regulation Act of 2022 (MoCRA). Included in MoCRA is a preemption clause that threatens to invalidate existing state HCAs and prevent any more from passing.

While we work to ensure that state HCAs are exempt from the preemption statute, we will also be monitoring and commenting on the FDA’s rulemaking process as it develops good manufacturing practices for cosmetics to ensure that cosmetic animal testing is eliminated wherever possible.

**REVERSING TRENDS IN NONHUMAN PRIMATE USE**

In 2019, more than 108,000 nonhuman primates (NHPs) were housed and used for research and testing purposes in the United States. By 2021, that number had risen to more than 113,000. Curbing and reversing this disturbing trend will continue to play a significant role in our work.

While we can only speculate at time of publishing, we anticipate the release of a report in early 2023 that strongly supports the continued—and likely increased—use of NHPs in many areas of biomedical research. This concern is based on our attendance at committee meetings organized by the National Academies of Sciences, Engineering and Medicine (NASEM). The committee, which was convened to examine the current role of and future needs for nonhuman primates in research funded by the National Institutes of Health (NIH), is comprised heavily of researchers who actively use NHPs in their research.

The scientific justification for NHP use in biomedical research is highly questionable, and the ethical justification is nonexistent. In its public facing inquiries, the NASEM committee did an abysmal job of hiding its bias against investigating areas where non-animal models may be available to replace NHPs. NAVS and our supporters will continue to be the voice for NHPs in 2023 as we work to reverse the trend of increased NHP use.

**SUPPORTING PROGRESS ACROSS THE COUNTRY**

Thanks to local advocacy efforts around the nation, NAVS is currently tracking nearly 30 pieces of legislation in 12 states that, if passed, would be a win for animals in labs. These bills range from familiar humane cosmetics acts and post-research adoption legislation to more novel pieces of legislation that will advance the development and use of non-animal test methods.

No matter how you choose to use your voice to protect animals from cruel and unnecessary treatment in laboratories, we thank you for joining us in our work, and we look forward to the victories ahead.

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Be sure to visit NAVS.org/advocacy for all of the latest opportunities to make your voice heard!
One of the most powerful ways that NAVS continues to demonstrate its commitment to advancing science without harming animals is by awarding a grant to the International Foundation for Ethical Research (IFER) every year to fund early career researchers who are developing alternatives to the use of animals in science.

Thanks to your generosity, IFER awarded nine new and renewed graduate fellowships for its 2022-23 grant cycle. Four of these grants are supporting new graduate fellows.

**Jason Eades**, a Ph.D. candidate at Texas A&M University, has received IFER funding to better understand why some individuals infected with coronavirus develop blood clotting conditions such as deep vein thrombosis. Animal models lack cell surface receptors, which are important for attachment and invasion of the coronavirus, among other limitations. Jason’s lab has developed a vein chip model in which blood vessel cells can be cultured with proteins they would normally interact with in the body. Fluids such as patient blood can be circulated through the vein chip device at different rates to mimic normal and pathological conditions. Jason will use the vein chip to better understand the impact of the coronavirus on blood vessel cells and blood clot formation. He will also use the device to study the impact of compression therapy for thrombosis.

**Kaihua (Chloe) Chen**, a Ph.D. candidate at the University of Rochester, has received funding from IFER to develop a human cell-based model to study brain injury during sepsis, a life-threatening condition in which an individual has an extreme response to an infection. While mice are commonly used to model sepsis, they do not give response profiles resembling those of humans. To address this deficiency, Kaihua is developing a human-relevant model that includes human blood vessel cells, astrocytes and pericytes, along with a microfluidic component. She is using this model to investigate how individual cell types respond to a simulated septic “cytokine storm”—a severe response to an infection—and to identify molecules that may offer some protection from this condition.

**Divya Subramanian**, a Ph.D. candidate at the University of Texas at Dallas, has received IFER funding to develop a model to study corneal wound healing. The cornea is the part of the eye that is exposed to the outer environment and thus is most likely to become damaged, making corneal wound healing an important medical issue. Corneal wound healing research currently relies heavily on animal models, particularly rabbits. However, differences between rabbit and human corneas make extrapolation of data across species problematic. Divya is planning to develop novel two-dimensional and three-dimensional human cell-based models of the corneal stroma. She will use these models to develop a wound healing procedure in this system to reduce the use of animals for this purpose.

**Yansong (Harry) Peng**, a Ph.D. candidate at Cornell University, has received funding from IFER to develop a novel pancreatic cancer model. Pancreatic cancer remains one of the most lethal forms of cancer, with a five-year survival rate of only around 11%. Although there is an FDA-approved immunotherapy for the disease, fewer than 10% of patients respond to it, and questions remain about how to make treatments more effective. Some have speculated that this resistance to therapies may be related to leaky lymphatic vessels increasing tumor interstitial fluid pressure, preventing entry of immune cells or therapies. To investigate those questions, Yansong will develop a three-dimensional prostate cancer model to study the role of lymphatic vessels in regulating tumor interstitial fluid pressure, immune cell infiltration and cancer drug delivery.

Meet all of this year’s new and renewed grant recipients and watch as they discuss their research at NAVS.org/IFER.
45 opportunities for legislative advocacy were shared with NAVS supporters.

13,546 email messages were sent by advocates to elected officials through the NAVS Advocacy Center.

7 International Foundation for Ethical Research (IFER) Graduate Student Fellowships for the Alternatives to the Use of Animals in Science were awarded to promising early career researchers.

$87,500 was awarded to IFER recipients.

8 BioLEAP Classroom Grants were awarded to science teachers who are introducing humane dissection replacement tools into their curricula.

3 high school students were recognized with the NAVS Humane Science Award at the Regeneron International Science and Engineering Fair for their projects that did not rely on the use of animal models.

13 grants were provided to aid animals in sanctuaries across the United States.

$98,614 was given to sanctuaries.

467 pieces of artwork were submitted for Art for Animals 2022 by artists of all ages from around the world.

49,584 copies of NAVS’ Animal Action magazine were mailed to supporters.
**Revenue**

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<tr>
<th>Source</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Donations</td>
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<tr>
<td>Grants</td>
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<td>Legacies and Bequests</td>
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<tr>
<td>Investment Income</td>
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**Total** $1,344,199

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**ALL Expenses**

- **ALL Expenses**
  - 74.3% Programs/Education
  - 5.9% Fundraising
  - 19.8% Administrative

- **Program and Education Expenses**
  - General Education/Public Awareness: $987,330
  - Science: $450,605
  - Legal/Legislative: $591,567
  - Special Initiatives/Cooperative Efforts: $136,718
  - Student/Educator Outreach: $278,050

**Total** $2,444,270

**Assets**

- Investments: $10,767,087
- Cash and Cash Equivalents: $240,177
- Royalties Receivable: $51,323
- Prepaid Expenses: $34,658
- Property and Equipment: $36,982

**Total** $11,130,227

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**Liabilities and Net Assets**

- Accrued Expenses & Accounts Payable: $214,634
- Accrued Vacation: $44,278
- **Total Liabilities**: $258,912

- **Net Assets**
  - Restricted: Special Project (Sanctuary Fund): $392,988
  - Unrestricted: $10,478,327
- **Total Net Assets**: $10,871,315

**Total** $11,130,227

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The financial statements have been audited by the accounting firm of Selden Fox, Ltd., and in their opinion, present fairly, in all material respects, the financial position of the National Anti-Vivisection Society as of June 30, 2022. A complete audited financial statement can be found on the NAVS website at NAVS.org/about-us/financials.
LOCKWOOD ANIMAL RESCUE CENTER
NAVS recently provided funding to the Lockwood Animal Rescue Center (LARC) in Frazier Park, California, through the Animal Sanctuary Assistance Program. LARC is dedicated to rescuing and providing permanent sanctuary for wildlife and domestic animals. The grant will assist LARC in purchasing materials needed to care for horses rescued from the pharmaceutical industry’s production of estrogen products derived from the urine of pregnant mares. As a result, Tara, Tie Dye and Dante can continue to thrive in the safety and freedom found at LARC.

JUNGLE FRIENDS
In January, NAVS provided a generous grant from the Animal Sanctuary Assistance Program to Jungle Friends Primate Sanctuary. Located in Gainesville, Florida, Jungle Friends provides permanent sanctuary care for retired research monkeys, former “pet” monkeys, and monkeys confiscated by the authorities or found at large. The NAVS grant will assist Jungle Friends in providing veterinary services, medication and medical supplies to the more than 200 monkeys—including Michael, Ringo and Mia—who call Jungle Friends their home.

ONE TAIL AT A TIME
One Tail at a Time in Chicago, Illinois, rescues animals from overcrowded shelters and works to find them their forever homes. They prioritize vulnerable populations of animals for rescue and support, including senior dogs, sick dogs, pit bulls and neonate kittens. One Tail at a Time recently took in 15 beagles who were released from a local medical research laboratory. Thanks to your generous support, NAVS’ Animal Sanctuary Assistance Program was able to assist in covering the cost of the initial medical care—including spay/neuter procedures, vaccines, preventive medicine and microchips—for Annie, Dude, Hazel and the other rescued beagles.

To learn more about the lifesaving work that is made possible through your support of the NAVS Animal Sanctuary Assistance Program, visit NAVS.org/ASAP.