ANIMALACTION

A PUBLICATION OF THE NATIONAL ANTI-VIVISECTION SOCIETY ❦ SPRING 2022

2021: A YEAR OF HUMANE PROGRESS

Looking back at the accomplishments you helped make happen over the past year…and toward a year filled with potential

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A tribute to NAVS' science advisor, friend and fellow animal advocate.

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Meet the new "class" of IFER-funded early career researchers.

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The National Anti-Vivisection Society (NAVS) is dedicated to ending the exploitation of animals used in science.

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Bernard Rollin, Ph.D. – A Tribute

NAVS Science Advisor Bernard Rollin, Ph.D., passed away in November 2021. At that time, Peggy Cunniff, executive director emerita, shared a tribute to her friend, known to those close to him as "Bernie." An edited version of her remarks follows:

Paying tribute to any extraordinary individual is a formidable challenge, but in remembering Bernard Rollin, words are totally inadequate to describe the unique character of the man and his impact on the world.

Bernie was a fierce animal advocate, patient mentor and tireless supporter of many organizations and efforts on behalf of animals, including NAVS, the International Foundation for Ethical Research (IFER) and the International Institute for Animal Law (IIAL). To have known him was a privilege, to count him as a friend an extraordinary blessing.

Bernie was funny, irreverent and fearless. He was a gifted storyteller who had a compelling and effective way of encouraging even his opponents to improve conditions for animals by reminding them of their own core values to do the right thing. He was a leader, an innovator and a problem-solver. He taught the first course ever on veterinary medical ethics and was instrumental in the passage of the Animal Welfare Act.

NAVS benefited greatly from Bernie's wisdom and experience as a science advisor. We have been proud to list his name on the banner of our publications. He consulted on numerous NAVS initiatives, wrote articles for *Animal Action* and was a featured speaker at events for NAVS' supporters. He lectured to law students and faculty on behalf of IIAL.

For many years, Bernie was on the Scientific Advisory Board of IFER. He often acknowledged that IFER's graduate student fellowships were a "game-changer" because they provided critical support and encouragement to young scientists to pursue careers without exploiting animals.

It is hard to believe that it wasn't that long ago when the prevailing wisdom in the scientific community claimed that ethical questions were outside the purview of science and ignored or denied the sentience of other species when, as he often pointed out, common sense understood that animals can think, feel and suffer.

He changed the attitude and perspective of countless people, and his legacy will live on in his writings and the generations of veterinary students he taught. As he stated, "Our treatment of animals is the last moral frontier, the ultimate test of our humanity, the mirror by which we can see most deeply into our own souls."

Bernie Rollin will be greatly missed. Our memories are flooded with thoughts of his wisdom, humor and creative energy. He always made us laugh. His legacy will continue to inspire many to provide greater respect, compassion and justice to animals.

Bernard Rollin (left) and Peggy Cunniff

UP FRONT

Art for Animals 2021 first place winner, "Compassion in Action," by Regina Gelfer

Announcing our 33rd Annual "Art for Animals" Competition

NAVS' Art for Animals contest is an opportunity for artists of all skills and ages to create images that inspire others to extend compassion, respect and justice to all animals. This year marks our 33rd annual competition, and we're once again inviting you to get creative and give a visual "voice" to those who cannot speak for themselves.

Whether you're paying tribute to an animal in your life, or appreciating animals in the world around you, we want to see how you picture compassion for animals with your entry this year. That's what Art for Animals is all about—putting into pictures the compassion that is due to every living creature.

Cash prizes will be given to first place, second place and third place winners; one Youth Award (age 12 and under) winner; and one Best in Show winner. We will also present a special Fans' Choice Award that will be chosen by our friends and followers on social media.

Submissions may be digitally created artwork or digital reproductions of original paintings, illustrations or photographs. Entries should be submitted via email to art@navs.org. Physical artwork cannot be accepted.

The deadline for submissions is July 29, 2022. For complete guidelines and to see galleries of previous winners, visit **www.navs.org/art.**

NAVS Research to be Published in Animal Alternatives Journal

NAVS is pleased to announce that our manuscript, "Educators' Views on the Use of Dissection and Dissection Alternatives in American Biology Classrooms," has been accepted for publication in the peer-reviewed journal, *Alternatives to Laboratory Animals (ATLA)*.

In spring of 2020, NAVS conducted a nationwide survey of biology teachers to better understand the current usage of and attitudes toward traditional dissection of animal specimens and more humane approaches using virtual or physical models of animals and their anatomy. Many important topics were examined, including the prevalence of classroom dissection, the availability of humane alternatives, factors that influence an educator's decision to use traditional dissection or other tools, and perceived barriers to implementing humane tools in the classroom. Teachers were also asked to consider learning objectives associated with traditional dissection exercises and whether they could be met using other solutions.

"NAVS is proud to contribute to the growing body of literature recognizing the value of dissection alternatives," noted NAVS Science Advisor Pam Osenkowski, Ph.D., lead author of the manuscript. "Our survey revealed that most educators believe that dissection alternatives can be used to meet biology-content related learning objectives associated with dissection. In line with the '3 Rs' principle of replacement, reduction and refinement of animal use in education, effective alternatives to the use of animal specimens for dissection exist, and NAVS recommends that they be used as replacements for traditional animal dissection."

The paper is expected to be published in *ATLA* later this year.

MAKING IT LEGAL

NAVS is tracking 63 pieces of legislation related to the use of animals in laboratories. Check out the breakdown of what is happening in Congress and state legislatures (as of 4/25/22):

4

States are considering humane cosmetics legislation (LA, NH, NY, RI)

2

States are considering post-research adoption legislation (MA, MI)

2

States are hearing bills related to the use of dogs and cats as research models (CA, MI)

23

Federal bills have been introduced that affect our work to help lab animals. Of note are five bills NAVS vehemently supports:

Federal Humane Cosmetics Act of 2021

Humane Research and Testing Act

Federal Accountability in Chemical Testing (FACT) Act

FDA Modernization Act

Animal Freedom from Testing, Experimentation, and Research (AFTER) Act

Chimp Sanctuary Act

12 **Bills have been introduced in Virginia to regulate research breeding facilities.**

This action comes after deplorable conditions were uncovered last year at Envigo in Cumberland County, a facility that breeds beagles for use in laboratories around the world. In a joint statement, a bipartisan group of Virginia legislators stated, "We are proud to lead the bipartisan effort to hold Envigo accountable for the troubling conditions and mistreatment of beagles at its Cumberland breeding facility…Virginia has been responsible for ignoring this mess for a long time, and we are not going to leave that stain on the Commonwealth."

*Visit **navs.org/advocacy** for opportunities to make your voice heard on state and federal legislation that affects animals. New bills are being added all the time—so be sure to bookmark and check back often!*

ANIMALS AND SCIENCE

2021-22 International Foundation for Ethical Research grant recipients on why they are developing alternatives to the use of animals in their research projects

ALAN KIM

"In vivo animal models have many flaws which make it difficult to directly apply their data to human health outcomes and regulatory decisions. As such, by providing regulatory agencies with alternative human cell-based in vitro systems, we can provide them data that better reflect the realities of human exposures and human health outcomes…If we as a society have decided that animals have rights and value as living, breathing creatures, then our research and our application of science should also reflect that."

PRASHANT HARIHARAN

"Presently, researchers use animals ranging from mice and rats to ferrets and pigs. In addition to ethical concerns of using these animals, these models typically involve performing challenging surgical procedures that are difficult to reproduce. And the results from these models cannot be easily translated to humans."

ISHITA VIRMANI

"Only approximately 200 [different] chemicals were tested for their developmental neurotoxicity potential [until now]. This indicates a massive gap in data and knowledge. One of the reasons behind this gap is the use of animal models for the chemical testing. These animal testing methods use a large number of pups, are really expensive, and are time consuming. Due to these reasons, there is a need of alternative approaches for the testing of chemicals."

SARAH STUART

"One of the main reasons that therapeutic development for glioblastoma has yielded such disappointing outcomes is the unsuitable and insufficient preclinical models that do not predict clinical outcomes. These include poorly planned or executed animal models that do not mimic real treatment and are therefore not useful in truly evaluating drug efficacy. Therefore, there is considerable interest in evaluating potentially viable agents utilizing appropriate glioblastoma models in the laboratory."

XINGRUI MOU

"A lot of efforts have been done to study kidney disease by using animal models such as rats and mice. However, 91% of drugs based on animal models will fail when they enter the clinical trial because of the difference between humans and small animals. Also, the use of animal models involved a lot of ethical concerns. As a result, the goal of my project is to develop an in vitro system that can model the function of the human kidney glomerulus and try to replace or reduce the use of animal models in studying kidney disease."

KATHARINA KROLL

"Existing preclinical models used in drug testing often fail to accurately predict the side effects of drugs in the research pipeline. These preclinical models are traditionally 2D cell culture models of kidney cells in a dish or animal models like mice or rats…Usually rodents are used for large scale toxicity testing of the drugs in the kidney, even though the kidney physiology is very different than in humans."

NURIA VILARNAU

"Much of the knowledge we have today about how this [liver regeneration] works stems from this and other animal models, which, even though they have generated a compelling body of knowledge, they have some limitations in their translational power. This means they are limited in their ability to reproduce the conditions in humans and their relevance for the development of therapies is also limited."

Meet this year's IFER grant recipients and learn more about their research on pgs. 8-9.

A YEAR OF HUMANE PROGRESS

Looking back at the accomplishments you helped make happen over the past year…and toward a year filled with potential

In the Spring 2021 edition of *Animal Action*, we laid out a roadmap for the year ahead to give you, our avid supporters and fellow advocates, an idea of what NAVS' priorities would be and to foreshadow how you would be part of the work ahead. So how did we do? And what's next?

Fast forward one year and it's time for some self-reflection as we look back at the work we focused on, the successes we can celebrate and the inroads on which we can continue to advance.

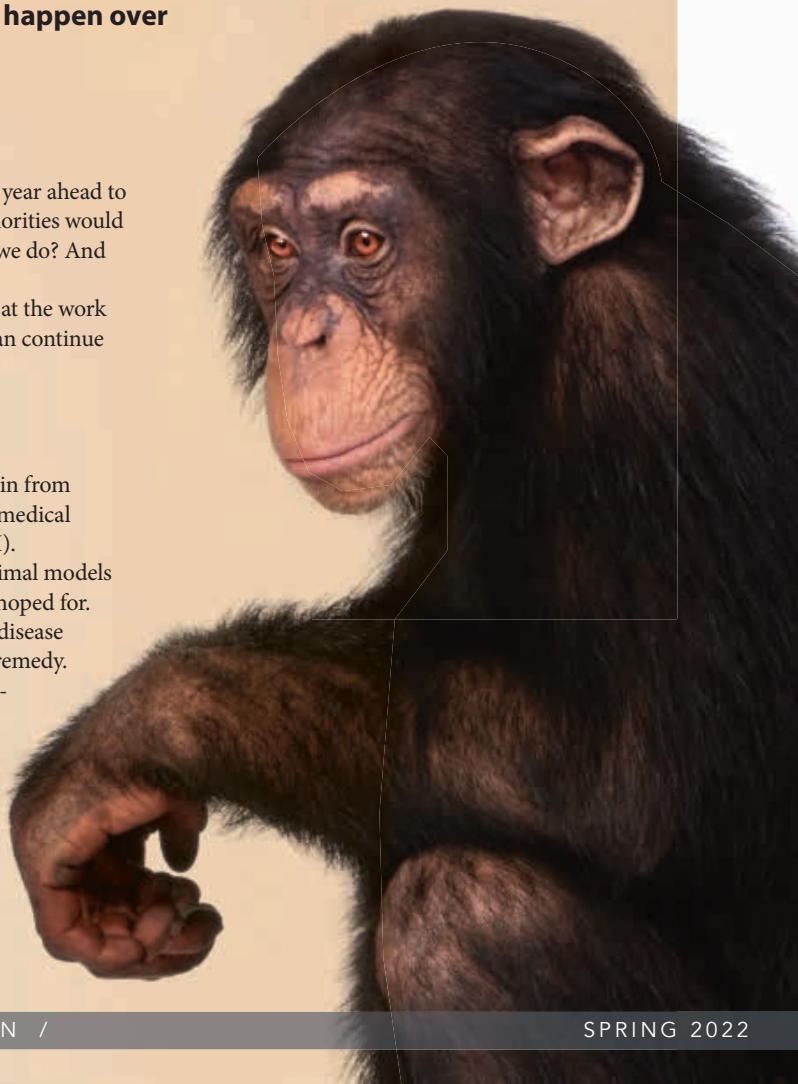
We Told the U.S. Government "No Monkey Stockpiles!" — and They're Listening

We kicked off 2021 asking the Biden Administration and Congress to refrain from authorizing the creation of a "stockpile" of nonhuman primates for use in biomedical research, which had been requested by the National Institutes of Health (NIH).

Despite decades of research using nonhuman primates, these and other animal models have not produced the significant human outcomes that many scientists had hoped for. Metastatic cancer is nearly as unstoppable as it was 50 years ago, Alzheimer's disease remains untreatable, and diseases such as Lou Gehrig's still have no effective remedy.

We urged the administration and Congress to boldly look ahead to human-relevant non-animal research methods that are more likely to produce treatments and cures for ailments affecting humans.

Although the Biden Administration ultimately requested an increase in funding for primate research, and the Senate appropriations bill for NIH did include the requested funding increase, our science-forward message was well received in the House of Representatives. The House's appropriations bill for 2022 included no additional funding for primate



research centers. The battle is not over, however. At press time, the 2022 appropriations process was still ongoing, and NAVS will continue to push for a shift in funding away from primitive primate research that has produced underwhelming results toward more innovative, human-based biomedical research endeavors.

Humane Cosmetics Acts are Taking Hold Coast to Coast

Last year, a record five states (Hawaii, Maine, Maryland, New Jersey, Virginia) passed Humane Cosmetics Acts to ban, with limited exceptions, the sale of cosmetics that were developed using animal testing. As this legislation was being considered by numerous state governments, NAVS was on the front lines helping to get bills passed by submitting testimony to committee members responsible for initial vetting and voting of the legislation. We also reached out to our network of supporters in the affected states asking them to contact legislators and voice support for this game-changing legislation.

We are excited to share that the popularity of humane cosmetics legislation has extended into 2022. So far this year, eight more states have considered banning the sale of animal-tested cosmetics: Florida, Louisiana, New Hampshire, New York, Oregon, Rhode Island, Utah and Washington. The Louisiana and New Hampshire bills have each passed one chamber. New York's house and senate bills are still fighting their way through committees with little opposition and, we hope, will be voted through soon.

Thanks in large part to successes at the state level, Congress introduced the Humane Cosmetics Act of 2021 at the end of last year. This legislation is widely supported among industry players and consumers alike and has bipartisan support in both the House and Senate. Getting this transformational legislation passed into law is a priority for 2022—we'll be asking for your help recruiting co-sponsors to get the bill moving in both chambers of Congress.

BioLEAP and CHOICE: Compassion Starts in the Classroom

Creating a more humane classroom environment by supporting the use of non-animal dissection tools has long been one of NAVS' core tenets. Last year we tackled three initiatives to make humane classrooms a reality for more educators and students than ever before: development of a comprehensive online catalog of humane dissection tools; the launching of our BioLEAP classroom grant program; and the creation of an interactive legislative map in support of our Compassionate Humane Options in Classroom Education (CHOICE) initiative.

Our new BioLEAP.org catalog of humane science tools includes hundreds of fun, creative and effective non-animal resources that students can use in place of animal dissection while learning about anatomy and physiology. In a plus for teachers and administrators, many of these humane solutions are cheaper than traditional animal models and can be reused over many years.

In 2022 we look forward to awarding our first BioLEAP classroom grants of up to $1,000 apiece to teachers and school administrators in the United States who are working to replace animal dissection in their classrooms. This money can be used to supplement or replace traditional animal specimens with anything from web-based anatomy programs to apps and physical models.

And finally, as we work to incorporate humane teaching materials into classrooms, it is important to equip students with the information they need to access such materials. With this in mind, in 2021 NAVS developed an interactive CHOICE map to help students figure out if their state or school district gives them the explicit right not to dissect. The map went live in early 2022, and we will continue to research local district policies and update the map throughout the year to ensure it is the most robust, accurate resource available.

These legislative successes and programmatic milestones, paired with our continued work to fund early career researchers with an interest in developing innovative alternatives to animal experiments through the International Foundation for Ethical Research (IFER), helped make 2021 a great year for our fight to end the exploitation of animals in science.

Of course, none of what we've accomplished would have been possible without you—our supporters, our advocates, our friends. Thank you for helping to make our shared vision for a more humane world a reality! Here's to more progress in 2022 and beyond!

A National Center for Animal Alternatives? It CAN Happen!

Also in 2021, NAVS' advocates encouraged the passage of multiple federal bills that would transform what we know about the use of animals in science by increasing information sharing. One of the most important of these was the Humane Research and Testing Act, which would establish the National Center for Alternatives to Animals in Research and Testing under the National Institutes of Health.

This bill would mandate federally funded researchers to track all vertebrate animals used in experiments so that progress at reducing these numbers can be effectively planned and measured. The Humane Research and Testing Act has bipartisan support in the House, and funding for the Center was included in the House's 2022 appropriations bill that is still making its way through Congress.

NAVS will track progress of this effort and continue to advocate for its passage in 2022.

MEET THE HUMANE SCIENCE "CLASS OF 2022"

Continuing our longstanding investment in ending the exploitation of animals used in science, NAVS, through the International Foundation for Ethical Research (IFER), funds the important work being conducted by graduate student researchers.

Recipients of annual Graduate Fellowships for Alternatives to the Use of Animals in Science recognize the significance of humane, human-relevant science. Through their work, these talented early career researchers are developing more human-relevant models to advance science and lessen reliance on animal experimentation. These fellowships recognize and support those outstanding graduate students who are working to promote the advancement of human-relevant methodologies that can spare animal suffering.

Thanks to your generosity, fellowships have been awarded this year to fund four new graduate student projects and renew three previously awarded projects.

The three Graduate Fellowship recipients whose projects were renewed are:

PRASHANT HARIHARAN, Wayne State University

"Engineering Human Choroid Plexus-on-a-Chip as a Non-Animal Model to Advance the Understanding of How Hydrocephalus Alters Normal CSF Secretion"

The goal of Prashant's project is to develop a human-relevant in vitro model to study hydrocephalus, the build-up of fluids in the cavities of the brain. In individuals afflicted with hydrocephalus, cerebrospinal fluid (CSF) accumulates in brain ventricles, causing increased pressure in those areas, as well as mental decline if the condition isn't treated. There is a need to develop drug-based therapies for this condition, but this has not been successful, because researchers need a good understanding of how CSF is secreted in the brain. This project seeks to create an organ-on-a-chip model of choroid plexus tissue, which forms the blood-CSF barrier, to better understand the mechanisms of CSF secretion, replace animal models used in this line of research, and develop a human-relevant model for drug screening.

XINGRUI MOU, Duke University

"Engineered In Vitro Model of the Human Kidney for Blood Filtration and Disease Modeling"

The goal of Xingrui's project is to engineer a cell-based model of the human kidney that can mimic that organ's blood filtration function. Given that a growing number of people are afflicted with kidney disease, a model that can mimic the structure and physiology of the human kidneys is needed. Xingrui will engineer a microfluidic device that can replicate the vascular and urinary compartments of the human kidney and will populate the device with different types of human kidney cells derived from human induced pluripotent stem cells. He will then conduct tests to examine the functionality of the engineered kidney model and use it to study kidney diseases, while providing the scientific community with an alternative that can reduce reliance on animal models in this area of research.

SARAH STUART, University of Melbourne, Royal Melbourne Hospital

"Using Brain Tumor Organoids to Evaluate Efficacy of Novel Inhibitors"

Sarah's project seeks to establish a patient-derived organoid collection to screen drugs to treat glioblastoma, an aggressive type of brain cancer. She will acquire resected glioblastoma tumors from surgeons and will generate dozens of organoid cultures. She will screen new and FDA-approved drugs using these cell models and will then determine if the drugs inhibit critical signaling pathways in the organoids. Her project will enable the study of glioblastoma in a human-relevant way and has the potential to reduce reliance on glioblastoma animal models on a large scale, as the brain tumor organoids generated from her project will be shared with national and international collaborators.

The four new Graduate Fellowship recipients are:

KATHARINA KROLL, Harvard University

"Development of a Perfusable Vascularized 3D-Kidney Organoid on a Chip for Nephrotoxicity Testing"

The goal of this project is to engineer a more complex in vitro model of the human kidney. Animal models often poorly predict the safety and effectiveness of drugs and can miss when the kidney is impacted as a side effect of drugs. There are also limitations with existing cell-based kidney models, too, as they lack a blood supply (vasculature), do not include immune cells, and are often made of kidney cells that haven't matured beyond early embryonic stages. Katharina plans to address these limitations in her cell-based model. She will build a kidney organoid-on-a-chip platform that integrates a functional vasculature network and will expose the kidney organoids to specific toxins to measure the impact of those treatments on the overall integrity and function of the organoids.

ISHITA VIRMANI, Johns Hopkins University/Masaryk University

"3D Human iPSC-derived Brain Organoids as a Model for Developmental Neurotoxicity Assessment of Man-Made Chemicals"

This proposal uses a brain organoid model derived from induced pluripotent stem cells, rather than commonly used animal models, to evaluate the developmental neurotoxicity potential of flame retardant chemicals. Ishita will expose brain organoids, during the early stages of their development, to different flame retardants and will analyze the effect of those treatments using different tests, including, but not limited to, assays regarding cell death, neurite outgrowth (a process in which developing neurons generate new projections as they grow), cell migration, gliogenesis (the generation of glial cells—cells that provide supporting function to the nervous system), and synaptogenesis (the formation of synapses between neurons).

NURIA VILARNAU, Karolinska Institute

"Mechanistic Analyses of Human Hepatocyte Plasticity"

This proposal aims to investigate human liver regeneration using a 3D sphere culture system. Chronic liver diseases are becoming a major public health challenge, and the main therapeutic option for individuals suffering from end-stage liver diseases is liver transplantation. However, another potential approach could involve developing therapies to boost the natural regenerative potential of liver cells. While the main model to study tissue regeneration has relied on rodents, the translational impact of animal models is limited due to species differences. Nuria will use a 3D cell culture system that enables the molecular and cellular biology of human adult liver regeneration to be studied. She will investigate the effects that small molecules and growth factors have on triggering human liver cells to grow and will perform gene expression studies to examine molecular mechanisms behind this process.

ALAN KIM, Johns Hopkins University

"Synaptogenesis Assay for Developmental Neurotoxicity Testing in a Human 3D Brain Model"

This proposal attempts to develop a quantitative in vitro model of synaptogenesis, the formation of synapses between neurons. Synapses are structures that allow neurons to communicate with one another. Synaptogenesis is believed to be disrupted in autism spectrum disorder and other neurodevelopmental disorders. Rather than using animal models to study developmental neurotoxicity, Alan will engineer a human cell-based model to study this. He will use human induced pluripotent stem cells and modify them so that pre- and post-synaptic markers are labeled with different fluorescent tags. He will use image analysis to identify synapses based on where these markers co-localize and will investigate whether chemicals can disrupt synaptogenesis during the development of the brain organoid model.

Visit NAVS.org/IFER to learn more about this year's fellowship recipients and their research.

2021 ANNUAL REPORT

JULY 1, 2020 TO JUNE 30, 2021

18,831
messages were sent by advocates to elected officials through the NAVS Advocacy Center.

105
opportunities for legislative advocacy were shared with NAVS supporters.

6
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.

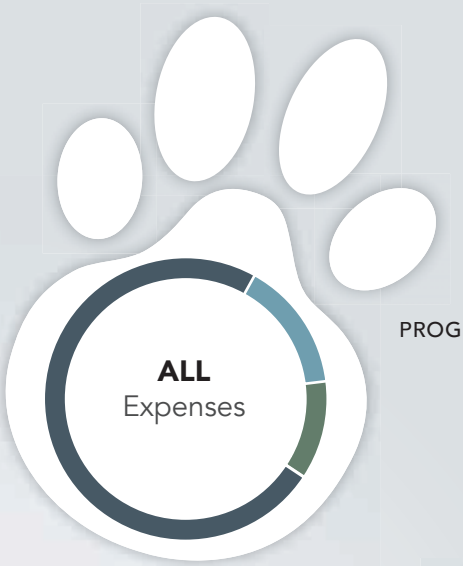
$75,000
was awarded to IFER recipients.

12
NAVS Sanctuary Fund grants were provided to aid animals in sanctuaries across the United States.

$98,300
was given to sanctuaries.

48,976
copies of NAVS' *Animal Action* magazine were mailed to supporters.

291
pieces of artwork were submitted for Art for Animals 2021 by artists of all ages from around the world.



71.3%
PROGRAMS/EDUCATION

10%
FUNDRAISING

18.7%
ADMINISTRATIVE

ALL Expenses

Programs and Education	$1,934,922
Fundraising	$270,152
Administrative	$508,192
TOTAL	**$2,713,266**

42.9%
GENERAL EDUCATION/
PUBLIC AWARENESS

18.4%
LEGAL/LEGISLATIVE

19.7%
SCIENCE

12.8%
SPECIAL INITIATIVES/
COOPERATIVE EFFORTS

6.2%
STUDENT/EDUCATOR
OUTREACH

Program and Education Expenses

General Education/Public Awareness	$829,691
Science	$381,654
Legal/Legislative	$356,073
Special Initiatives/Cooperative Efforts	$246,734
Student/Educator Outreach	$120,770
TOTAL	**$1,934,922**

Assets

Investments	$12,887,980
Cash and Cash Equivalents	$144,351
Royalties Receivable	$58,095
Prepaid Expenses	$65,683
Property and Equipment	$8,887
TOTAL	**$13,164,996**

Revenue

Donations	$859,869
Grants	$648,456
Legacies and Bequests	$3,102,173
Investment Income	$2,775,015
Miscellaneous	$432
TOTAL	**$7,385,945**

Liabilities and Net Assets

Accrued Expenses & Accounts Payable	$127,837
Accrued Vacation	$13,988
SBA Loan (PPP)	$205,595
Total Liabilities	**$347,420**
Net Assets	
Restricted: Special Project (Sanctuary Fund)	$462,763
Unrestricted	$12,354,813
Total Net Assets	$12,817,576
TOTAL	**$13,164,996**

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, 2021. A complete audited financial statement can be found on the NAVS website at ***NAVS.org/about-us/financials****.*

National Anti-Vivisection Society
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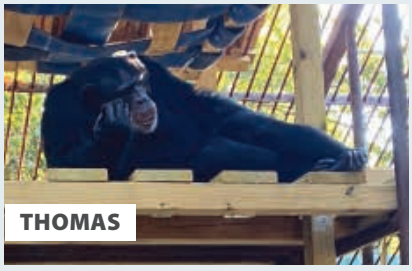
FACES OF SURVIVAL

SANCTUARY FUND

The NAVS Sanctuary Fund is a lifeline to animal rescues, shelters and sanctuaries who find themselves in desperate need of emergency financial assistance. Meet some of the latest animals who have overcome tremendous obstacles thanks to your support.

JOY AND WREN



THOMAS

TIM

The NAVS Sanctuary Fund kicked off the new year with a grant to **Arthur's Acres Animal Sanctuary** in Parksville, NY. The grant helped provide ongoing medical care for six former laboratory pigs, including **JOY** and **WREN** (pictured). But that's not all. The grant will also help fund a comprehensive long-term care plan for these and other "retired" research pigs. The plan, which will be developed in conjunction with Cornell University Hospital for Animals, will be shared with other sanctuaries and the general rescue community so that pigs rescued from research facilities in the future can achieve the best possible outcomes and live out their lives as nature intended.

In 2021, the NAVS Sanctuary Fund issued a grant to **Primarily Primates** in San Antonio, TX, to assist in construction needs as the sanctuary prepared to welcome new chimpanzee residents. We were recently notified that new climbing structures were completed. These structures add to the dynamic and stimulating environment needed for chimpanzees to live the rest of their lives with dignity and to make their own choices about how to spend their days. These structures will not only be enjoyed by new residents, but also current residents at Primarily Primates. Just ask **THOMAS** (pictured), a current resident, as he enjoys the new climbing structures made possible by your support and generosity!

New Life Animal Sanctuary in Lake Elsinore, CA, took on a rescue of 13 pigeons after they had spent 10 long years in a psychology laboratory. The NAVS Sanctuary Fund was there to assist with a grant to construct a custom-built, spacious, open-air aviary for the "**Lucky 13**," as well as provide funds to assist in their ongoing care. Due to your generous support to the NAVS Sanctuary Fund, these rescued pigeons, including **TIM** (pictured) were finally able to stretch their wings, engage in normal social interactions, and get the rare chance at life after the lab. The new aviary has also been used to rescue 22 additional pigeons—and it will continue to be used to save more lives in the future.

*To learn more about the lifesaving work that is made possible through your support of the NAVS Sanctuary Fund, visit **NAVS.org/sanctuary**.*