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FROM THE EXECUTIVE DIRECTOR

Dear Friends,

Greetings! My name is Kenneth Kandaras and I am honored and pleased to be appointed to head NAVS. But before any further remarks, I want to say a few words about the extraordinary individual who I am following.

As a member of the NAVS board of directors since 1999 and as board president since 2002, I can confidently say that everyone associated with NAVS owes Peggy Cunniff a great debt of gratitude. Peggy leaves a legacy of care and compassion for animals, as well as enormous achievements toward the advancement of alternatives. Her actions reflect her commitment to change through education, and those who have observed her work over the years cannot help but recognize her impact.

Whether testifying on Capitol Hill to ensure passage of the CHIMP Act, which helped pave the way for the eventual cessation of chimpanzee experiments; securing vital funding to allow for the creation of the Chimp Haven, the National Chimpanzee Sanctuary; developing the first-ever comprehensive resource for students seeking dissection alternatives; establishing the International Foundation for Ethical for Research, through which young researchers are empowered to integrate scientific discovery with ethics and respect for animals; or through any of her countless other achievements, Peggy has made her mark every step of the way toward fulfilment of our shared, humane mission.

It is not at all hyperbolic to note that much of the progress that has been made toward ending the exploitation of animals in the name of science would not have taken place were it not for Peggy Cunniff.

On behalf of everyone in the NAVS community, I would like to thank Peggy for her decades of service to NAVS, and I look forward to her continuing role in advancing our mission for many years to come. She has truly made NAVS a national leader in the field.

As for me, my association with the organization goes back nearly 20 years. During this time, along with the other board members and staff, I have supported NAVS’ singular mission: to end the exploitation of animals used in science.

Before accepting my new role with NAVS, my career as an attorney and law professor at The John Marshall Law School focused upon advocacy. I understand, therefore, the importance and the power of persuasion through reason, and hope to harness my expertise in this area to further our progress.

This is an exciting time for those of us who seek to end the use of animals in research. At our core, NAVS is—first and foremost—an organization founded upon education. Because with education comes knowledge, with knowledge comes power, and with power comes change. As proof, I need to look back no further than my earliest days with NAVS.

Twenty years ago, it was all but unthinkable that chimpanzees would have any hope of being freed from lives spent as laboratory test subjects. Today, invasive experimentation on these animals has come to an end, and they are slowly making their way to sanctuaries.

Twenty years ago, the notion of “cruelty-free” products that had not been tested on animals was still something of an outlier. They were “fringe” products, sold primarily at specialty shops and craft fairs. Today, cruelty-free cosmetics and personal care products can be found on the shelves of Target, Wal-Mart and other “big box” stores across the country.

Twenty years ago, far too many scientific “alternatives” to using animals were just that, alternatives—options that were utilized only as a last resort in place of the “real” thing. Today, superior technological and scientific breakthroughs that are reducing and replacing the use of animals are being generated in an increasingly rapid pace. Organs-on-chips, human-relevant simulators and state-of-the-art classroom instruction tools are all on their way to one day becoming not alternatives, but the norm.

Again, I am deeply honored to have been selected to lead NAVS as we prepare to enter our 90th year. I have inherited a dedicated, skilled, and success-driven staff who are as committed as I am to the fulfilment of our mission. I thank the NAVS board for the confidence that they have placed in me, and I thank you—our supporters—for being an integral part of our humane efforts.

I look forward to the challenges—and victories—that lie ahead.

Sincerely,

Kenneth Kandaras, Executive Director
Dear Friends,

This is not a “good-bye” letter. Although I have stepped down as executive director of NAVS, my absence will be temporary, as I am only taking a sabbatical from the organization, following which I hope to return in another capacity. After 32 years at the helm, however, I am stepping away from running NAVS’ day-to-day operations.

In my place, I am very pleased that Kenneth Kandaras, who has previously served as the president of the NAVS board of directors, has assumed the role of executive director. In planning for my transition, the board and I sought to maximize this opportunity to not only bring strong, visionary leadership to NAVS, but also to maintain the powerful momentum that we have built over the past decades.

In Ken, we have found a perfect blend of dedication and experience. A law professor for over four decades, filled with new ideas and enthusiasm, Ken is also a knowledgeable advocate with a compassionate heart. As NAVS supporters, you can feel confident that NAVS will continue to be managed professionally and ethically under Ken’s leadership. NAVS will stay true to our cause, working with the same sense of urgency as we always have on behalf of the animals who suffer in the name of science.

Working day-to-day on so many issues, it can be easy to lose sight of the progress that has been achieved along the way. However, as I look back on the past three decades, I am struck by how much we have done together. The memories that you have helped to create will be cherished forever.

By implementing programs that offer humane solutions, compelling ethical arguments, human-relevant science, and greater justice for animals, we have advanced the NAVS mission and the cause of animal protection. Together, our accomplishments have included ending the exploitation of chimpanzees in research, empowering consumers with compassionate choices, proving that alternative methods of research are smarter and more predictive than animal experiments, and making animal law and advocacy a respected part of our justice system. And because of your generosity, countless animals have found safe haven in a sanctuary.

Together, we have changed hearts, minds and attitudes toward society’s use of animals.

I have been so fortunate to see firsthand the power of an individual to make a difference. I have personally been touched by the support of family members and friends who have supported my work over the years, beginning with my father who preceded me at NAVS and my husband Ken who always provides encouragement and wise advice. I am humbled by the pride my children have shown in our efforts on behalf of animals and a privilege to represent such compassionate people who share my passion for this noble cause.

As I step down, I do so with a spirit of gratitude—to the NAVS board of directors and science advisors from whom I have learned so much, to the many shelters and sanctuaries that help animals in need, to the many leaders in animal protection with whom I had the honor to work through good times and bad, and to my extraordinary colleagues who comprise the NAVS staff.

Most importantly, however, I am thankful for you. With your support and encouragement, we have been able to successfully advance smarter, more humane methods of research that don’t cause harm to animals. And together we have inspired others to extend their circle of compassion to include all creatures.

I hope that you will continue to share the dream of a world that values compassion as much as the pursuit of knowledge and scientific advancements. Your courage in standing up to power and indifference and your thoughtful generosity will continue to inspire me.

Thank you for giving meaning and joy to my life’s work.

Yours, as always, on behalf of the animals,

Peggy Cunniff, Executive Director Emerita
Federal legislators weigh in on current animal research bills:

“As you begin work on the fiscal year 2019 Military Construction, Veterans Affairs, and Related Agencies Appropriations bill, we urge you to again prevent funds from going to the Department of Veterans Affairs (VA) for its two most painful categories of experiments on dogs....”
March 15, 2018 letter from Reps. Dave Brat (R-VA), Dina Titus (D-NV) and 51 other members of Congress to Chairman Dent and Ranking Member Wasserman Schultz, Committee on Appropriations, Subcommittee on Military Construction, Veterans Affairs, and Related Agencies Appropriations, asking them once again to include the language of the PUPPERS Act, HR 3197, in the 2019 funding bill

“Over their long history, Class B dealers have racked up an atrocious record of illegal activity and cruelty to animals. This program has been an unmitigated disaster — and worst of all, it’s unnecessary. Congress should have shut it down years ago.... I urge my colleagues to pass this bill to put an end to this industry and the waste of resources it entails, to ensure the integrity of scientific research, and to protect American families and their pets.”
U.S. Rep. Mike Doyle (D-PA) on reintroduction of the Pet Safety and Protection Act, HR 1141

“It’s crucial we stand up for animals — both as individuals and as a society. That means strengthening important regulations under the Animal Welfare Act to meet this goal. As a member of the Congressional Animal Protection Caucus, I’m committed to ensuring our government is doing its part to promote animal welfare.”
U.S. Rep. Brian Fitzpatrick (R-PA) on introducing the Puppy Protection Act, HR 4693

States work to pass research dog and cat adoption bills:

In 2017, NAVS launched a campaign to encourage legislators to support a law to require laboratories that use dogs and cats for research to adopt out healthy animals when they have finished the research, testing or educational activity for which they are being used.

3 Number of new states that passed laws this year: Maryland, Delaware and Rhode Island

3 Number of states still considering bills this legislative session: Massachusetts, New Jersey and Pennsylvania

9 Number of total states with laws: California, Connecticut, Delaware, Illinois, Maryland, Minnesota, Nevada, New York and Rhode Island

“These research animals have endured a lifetime of suffering in order to help us humans lead a healthier and longer life. The least we can do is to provide them with a mechanism for adoption as a small thank you for their suffering in the name of science. The least they deserve is a chance at a happy and peaceful end of their life. This legislation will give them that chance.”
June 22, 2018 press release from Rhode Island Representative Charlene Lima (D-Dist. 14, Cranston, Providence), lead sponsor of HB 7414

“We worked hard on SB 101 — our bill to give retired research dogs and cats a chance at adoption — and it was incredibly gratifying to stand beside Governor John Carney moments ago as he signed our bill into law. Thank you again to the incredible advocates, pet owners, and adoption centers around the state and to my colleagues who helped get this passed and placed on the Governor’s desk. Thanks to your steadfast and passionate support, we have officially crossed the finish line with this bill and can look forward to welcoming loving cats and dogs like George and Gigi (who helped pass SB 101 as much as anybody else!) into our homes. We pass a lot of bills here in Dover, but it was a unique privilege to sponsor a bill that will save the lives of countless research dogs and cats in the years to come.”
June 20, 2018 Facebook post from Delaware Senator John Walsh on the passage of SB 101
“Scientific, legal, ethical, and economic factors have prompted curricular reforms around the world that have led to a dramatic decrease in the use of live animals for training in biomedical fields in favor of simulation-based education. Facilities that continue to use animals for these purposes will have less ethical and legal justification given that comparable courses are taught in many locations elsewhere without animal use.”


“These results are a prime example of how our Organs-on-Chips technology can identify safety and efficacy issues earlier and more reliably in the drug development process, enabling the design and selection of drug candidates that have a higher potential of success in human clinical trials.”

Geraldine Hamilton, president and chief scientific officer of organ-on-a-chip company Emulate regarding the blood vessel chip which predicted blood clotting side effects seen in human patients that were not predicted by preclinical animal tests

“Organoids have emerged as a physiologically relevant in vitro model to study cancer. Organoids can be established with high efficiency from individual patient-derived tumour tissue, making them a highly relevant model for translational applications and the development of personalized cancer treatments.”


“Confidence is growing that all-human in vitro models can provide information that is more useful than information from animal models, as more and more examples accrue. This is especially true for efficacy, as animal models often fail to capture true human molecular mechanisms.”

Dr. Linda Griffith on the human "body-on-a-chip," as quoted in NAVS’ “Science First,” March 27, 2018

CHIMPANZEE RETIREMENT

According to the Council of Councils Working Group on Assessing the Safety of Relocating At-Risk Chimpanzees, May 2018. (All figures as of 3/30/18.)

504
number of chimpanzees the NIH owns or supports

232
number of NIH-owned chimpanzees the federal sanctuary system holds

14
number of privately-owned chimpanzees the federal sanctuary system holds

364
number of chimpanzees the NIH has relocated to the federal sanctuary system since it opened in 2005

272
number of chimpanzees who reside outside the federal sanctuary system, 177 of whom have chronic health conditions that could increase their risk of relocation-related adverse events

“The NIH and the facilities that house NIH-owned and NIH-supported chimpanzees should relocate all of these chimpanzees to the federal sanctuary system unless relocation is extremely likely to shorten their lives.”

Council of Councils Working Group on Assessing the Safety of Relocating At-Risk Chimpanzees, May 2018
Because of the dog’s joyfulness, our own is increased. It is no small gift. It is not the least reason why we should honor as well as love the dog of our own life, and the dog down the street, and all the dogs not yet born. What would the world be like without music or rivers or the green and tender grass? What would this world be like without dogs?

- Mary Oliver
Pulitzer Prize-winning poet
They’re our faithful friends, the first to greet us at the door with tongues out and tails wagging. They’re glad to join us on an early walk to start the morning, and ready to curl up next to us on the couch at the end of a long day. Often happy just to be near us, dogs have become humans’ best friends after sharing thousands of years of history that have forged a bond so strong it rivals even our relationships within our own species.

Yet for thousands of dogs each year, this connection is exploited in the name of faulty science. These dogs—mainly beagles, chosen for their small size and friendly nature—are “purpose bred” to be sold as research subjects. Even before they are born, they’re thought of merely as lab tools. There is even the option to have dogs bred to be predisposed to contract terrible diseases like muscular dystrophy and cancer—doomed to suffer, through no fault of their own. And while it’s currently illegal in five states, vendors of research dogs can provide “devocalization services,” a surgical procedure that makes it impossible for dogs to bark, and comes with painful, life-threatening complications.

All of this before they even reach the laboratory. All of this to prepare them to be merchandise, sold when many aren’t even full-grown dogs: just months-old puppies, priced according to age.

One of the largest suppliers of purpose-bred research dogs, Marshall BioResources, lists their price of a one-month old “Marshall Beagle” as $765, up to $938 for a six-month old, not including “Additional Services” or delivery. Companies like Marshall may refer to these animals as simple commodities to be prepared, sold and shipped, but they’re selling individual lives who have the same need for bonding, affection and socialization as our beloved household companions.

Sadly, these are lives that will most likely never know these joys.

After being shipped to the laboratory, there is no end to the possibility of pain and suffering that dogs may encounter. Dogs are subject to a wide array of tests and experiments, but most (more than 75%) are used in pharmaceutical testing. This is because regulatory authorities require that drugs be tested in both a rodent and non-rodent species for toxicity. Because dogs are easy to handle, they have become the most often used non-rodent model.

These toxicity tests take many forms. One protocol obtained by NAVS described research that would use 165 beagles between the ages of six to nine months for cardiovascular toxicity testing. The dogs would be implanted with devices to monitor their vital signs, as well as vascular access ports which would allow researchers to administer the drugs to be tested for toxicity directly into their blood streams. The dogs would then be dosed with the drugs twice a day until they showed signs of pain or distress. Animals who showed such symptoms—not eating, significant weight loss, diarrhea or not returning to normal cardiac function after the dose was administered—would be euthanized. Among the surviving animals, there would be tests for “approximately 35 compounds in a calendar year” with “16 animals…utilized for each study.” All of this would occur over a three-year span, subjecting nearly 200 dogs to these experiments.

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We found evidence of other research using dogs that would implant pacemakers, then over the span of up to 10 weeks, induce heart failure in the beagles and “mongrels” (hounds and other mixed-bred dogs). Per the research protocol, dogs “not in heart failure after 10 weeks of pacing…will be euthanized.” For the rest of these animals, once their hearts start failing, the dogs—while conscious—would be placed in a sling, attached to monitoring machinery, and given escalating doses of the drug being tested in the experiment to see if the drug would affect their failing hearts. Regardless of outcome, any dog who has gone through this pacing procedure would then be euthanized. Dogs could be used up to 10 times—and all would be “euthanized after the last experiment.”

Outside of toxicity research, dogs are used to study genetic diseases such as Duchenne Muscular Dystrophy, where dogs (specifically golden retrievers, at a widely-known research lab at Texas A&M) are born with the debilitating, painful disease. Some dogs are used in cancer research, and others may be used in osteopathic research. One proposed dog experiment that NAVS uncovered would test two types of bone grafts by intentionally creating bone defects in both the dogs’ front leg bones. Different graft types would then be injected into each leg for comparison. Groups of dogs would be euthanized at six, 13, and 26 weeks to examine the results, with the dogs’ painful lives only extending as long as deemed “scientifically necessary.”

These are just a few examples of experiments we know about. For every bit of information we uncover, much more remains shrouded in secrecy because for animal advocacy organizations like NAVS, it’s increasingly difficult to be sure exactly what’s happening to dogs—or any animal—used in research. Instead, what we know is pieced together based on information acquired through filing FOIA (Freedom of Information Act) requests and through online databases with limited data.

Information was once easily accessible through the USDA’s Animal Plant and Health Inspection Service (APHIS) online tool, which offered an easily searchable database of animal welfare reports. In February 2017, however, this database disappeared, and anyone searching for the crucial information it held was instructed to instead file a FOIA request. This process has proven to be extremely slow, with some institutions even quoting exorbitant costs to fulfill the requests, making it impossible for nonprofit organizations or concerned individuals with limited means to afford the reports.

On the rare occasion a response is received, much of the information is redacted or buried within hundreds of pages of reporting. This glaring lack of transparency should be a concern not only for animal advocates, but for all U.S. citizens who want to know what their tax dollars are funding.

What we do know for certain, however, is that the outlook for dogs who survive the research is grim. As with the protocols we have uncovered, many experiments require

We need you to help stop the use of dogs in research. Get involved by supporting adoption legislation, sharing this article with friends and family, and supporting the development of alternatives that will make animal experimentation a thing of the past. Visit www.navs.org/dogs to learn more about what you can do today.
the animals to be euthanized at the close of research, with autopsies deemed “necessary” to collect data. Other surviving dogs can be stuck in a hellish cycle of research. A 2014 research protocol obtained by NAVS specified that the dogs used in a round of experiments may be used in as many as 10 studies, and after the 10th use a veterinarian will assess the animals’ health. According to the report, “if the animals are healthy, they may be reused... up to 25 times.”

But there is hope. While a few research facilities have voluntarily offered research dogs the chance at adoption in the past, nine states—California, Connecticut, Illinois, Minnesota, Nevada, New York, Maryland, Delaware and Rhode Island—have enacted legislation that would require laboratories that use dogs and cats for research to adopt out healthy animals when they have finished the research, testing or educational activity. At the time of writing, three other states—New Jersey, Massachusetts and Pennsylvania—are still considering a bill this year.

While scientific evidence now shows that dogs are not accurate or predictive models for humans, the move to more innovative, smarter research must follow—for the animals’ sake as well as our own. For instance, a 2013 report “Analysis of the Use of Dogs in Predicting Human Toxicology and Drug Safety” questions the practices that have so long been blindly accepted. According to authors Baily, Thew and Balls, “dogs remain the main non-rodent species in preclinical drug development.” However, as progress continues to be hindered by current methods, they contend that “little supportive evidence of [the] value or necessity [of using dogs].” In order for the expensive, time-consuming research being conducted to finally make life-saving medical breakthroughs, it needs to look forward—and leave the antiquated, cruel practice of using dogs and other animals as models behind.

From their first days as puppies bred by biomedical specimen suppliers to their shipment to a laboratory and then to their uncertain futures, these individual animal lives shouldn’t be forgotten just because they were born at the wrong place at the wrong time. If we, as Mary Oliver suggests “love the dog of our own life, and the dog down the street, and all the dogs not born,” we must also love the dogs trapped in this cycle of the animal research industry—and show our love for them by bringing it to an end.
NAVS staff had the honor of attending the Intel International Science and Engineering Fair (ISEF) in Pittsburgh, Pennsylvania this past May to select recipients of our Humane Science Award. The award represents NAVS’ commitment to encouraging the efforts of young scientists who are conducting innovative research that can reduce or replace the use of animals with non-animal methodologies.

We believe that rewarding these efforts to advance science without relying on animal models is an investment that will pay huge dividends as the award winners continue their research into college and beyond.

Intel ISEF brought together more than 1800 students from all over the world. Our judges, NAVS Science Advisors John Harbell and Pam Osenkowski, along with NAVS’ Director of Legal and Legislative Programs Marcia Kramer, reviewed hundreds of projects and narrowed the field down to a dozen promising young scientists to select this year’s awardees.
We are pleased to announce the following winners of the NAVS 2018 Humane Science Award:

**FIRST PLACE**: Erin Kajihiro, from Moanalua High School in Honolulu, HI, for her project, Development of Animal Component-Free Media for the Cryopreservation of Drosophila S2 Cells.

**SECOND PLACE**: Siyuan Ma and Alexander Anderson, from Breck School in Golden Valley, MN for their project, Holding Your Heart in Your Hand: 3D-Printing a Mechanically Accurate Aortic Valve Model.

**THIRD PLACE**: Marissa Sumathipala, from Broad Run High School in Ashburn, VA for her project, MiRNet: A Novel in silico Network-Based Approach to miRNA Drug Target Identification for Next Generation Drug Discovery. (Marissa also received Intel ISEF’s Best of Category and First Place Awards in the category of Computational Biology and Bioinformatics.)

What makes these projects—and these students—so special? In addition to the quality and basic design of their science fair projects, each has the potential to make long-term contributions to science that greatly reduce the number of animals used for research.

First-place winner Erin Kajihiro’s project, for instance, developed an animal-free media for preserving insect cells. The use of fetal bovine serum in cell cryopreservation media—and in general cell culture media—is widespread, despite its high cost, ethical concerns, and scientific limitations, including batch-to-batch variability which can influence the reproducibility of in vitro data. Therefore, the development of serum-free medium formulations is of utmost importance.

When asked about the positive implications of her project, Erin said that her work “mitigates any ethical concerns from fetal bovine serum, [which] is collected through cardiac puncture during slaughter. Using animal-component free substances mitigates any concerns of those ethical issues, lowers the risk of contamination and lowers the cost of vaccine research.”

This year’s second-place winners, Siyuan Ma and Alexander Anderson, created a 3D model of a mechanically accurate aortic valve. The valve, which judges were able to see and touch, is extremely lifelike and is intended to be used by surgeons to practice difficult heart surgeries prior to operating on a patient. One of the features of their project is that they were able to develop a material that was capable of being molded by a 3D printer that closely resembled human organ tissue.

According to Siyuan and Alexander, “We created our mechanically and anatomically realistic, fully customizable organ models for the purpose of standing in place of real animal organ models, to help save both humans and animals. These models provide a lifelike and patient-specific practice tool available to surgeons, and high-school biology classes alike.”

Both students are animal lovers and were pleased to develop a project that could “contribute to the welfare of the world.”

Our third-place winner, Marissa Sumathipala, explains the impact of her project quite eloquently: “One of the major advantages of my project is that we are able to cut down on the number of in vivo and in vitro experiments that are needed because we can do so much of it computationally using the model that I created—this network medicine platform. Not only is it more accurate at predicting therapeutic targets, but it enables us to do it without having to use in vivo experiments.”

She continues, “My project will enable us to identify drug targets for therapeutics and minimize the need for in vivo experiments on mice, fruit flies, monkeys and we can take a lot of those steps computationally,” adding that she is “incredibly thankful to be recognized for this work.”

Congratulations to all of this year’s winners!
When catastrophes strike, the NAVS Sanctuary Fund stands ready to help animal sanctuaries, rescues and shelters facing emergency needs. Support from the Sanctuary Fund is a lifeline for the organizations, whose resources are already strained, and for the animals who call these places home.

In the wake of last year’s hurricane season, gifts to the NAVS Sanctuary Fund assisted animals at places like Rowdy Girl Sanctuary in Angleton, Texas, a farmed animal sanctuary that was in the direct path of Hurricane Harvey and found itself underwater. Sanctuary Fund donations also ensured that help was available for the animals at Jungle Friends Sanctuary in Gainesville, Florida, which needed to repair their primate enclosures after they were hit by Hurricane Irma.

Disasters can strike quickly—with potentially dire consequences for the animals who make their homes in these sanctuaries.

As we prepare for another year of the unexpected—and as weather seems to become more destructive and extreme—we hope you will help us be there for the countless animals living at sanctuaries who will need our help.

Make a donation to NAVS today at www.navs.org/be-there to help make sure that we don’t have to turn away qualified requests for funds when the need is urgent and lives are on the line.