From: Billet, Courtney (NIH/NIAID) [E]
Sent: Mon, 1 Nov 2021 20:02:12 +0000
To: Abutaleb, Yasmeen
Subject: FW:

Re-sending our statement, per request. Note that the researchers have since been able to correct the mistake with the journal, so there is now a publisher's note that we are able to point reporters to, which says, "The US National Institutes of Health and the Wellcome Trust did not provide any funding for this research and any such claim was made in error." Corresponding changes are now following in various NIH systems and databases, such as NIH RePORTER, but there has been more lag time than we would have liked.

From: Billet, Courtney (NIH/NIAID) [E]
Sent: Wednesday, October 27, 2021 1:25 PM
To: Abutaleb, Yasmeen <Yasmeen.Abutaleb@washpost.com>
Subject:

STATEMENT FROM NIAID:

All animals used in NIH-funded research are protected by laws, regulations, and policies to ensure the smallest possible number of subjects and the greatest commitment to their welfare. Institutions receiving funds, including those in other countries, must conduct research that involves animals in accordance with the Public Health Service Policy on the Humane Care and Use of Laboratory Animals. The proposed use of animals in research is evaluated during peer review for both contract and grant proposals, and animals used in research are to be provided with appropriate anesthesia and veterinary care. The principles for what is -- and is not -- allowed are governed both by regulations administered by the NIH Office of Laboratory Animal Welfare and the grantee institution's animal care and use committee (IACUC), and these principles apply to the situations described below.

With respect to the allegations by the White Coat Waste Project:

- The images of beagles were drawn from a manuscript published in July 2021 in the journal PLOS Neglected Tropical Diseases. The manuscript mistakenly cited support from NIAID, when in fact NIAID did not support this specific research shown in the images of the beagles being circulated. NIAID has funded a separate project involving the study of a vaccine to prevent leishmaniasis, a serious parasitic disease transmitted by sand flies that poses a threat in particular to US troops and other personnel, as well as US military dogs, in areas where the disease is endemic. In the NIAID-supported study, twelve dogs were immunized with the experimental vaccine at the Pasteur Institute of Tunis, and then let out in an enclosed open space during the day, during high sandfly season in an area of Tunisia considered to be hyper-endemic for canine leishmaniasis. The goal of the research was to determine if the experimental vaccine

prevented the dogs from becoming infected in a natural setting. Developing a vaccine to prevent leishmaniasis is an important research goal. In this case, the researchers are supported through multiple different funding sources. The NIAID grant ended in July 2021. White Coat Waste also noted a 2016 leishmaniasis project conducted in NIAID laboratories; dogs were the necessary animal model for the research, and the researchers ensured that the dogs experienced no discomfort.

- The research described by the White Coat Waste Project at the University of Georgia focuses on lymphatic filariasis (LF), a mosquito-transmitted parasitic disease that affects millions of people in many countries around the world. According to the World Health Organization, LF is the second leading cause of human disability in endemic countries. People disfigured by LF are frequently unable to work because of their disability. No licensed prophylactic vaccine is available to prevent LF; the development of an effective vaccine against the parasites that cause LF could prevent significant disease and suffering globally. The vaccine candidate under investigation in the NIAID-supported project at the University of Georgia targets a protein that is common among multiple species of filarial parasites. It potentially could be used to prevent LF in humans as well as filarial infections, including heartworm, in dogs. Dogs are a natural host for the B. pahangi parasite and exhibit clinical and pathologic changes like those seen in human filarial infection. As such, they represent an appropriate model for testing this investigational vaccine prior to evaluation in humans.

- There also are concerns raised about work involving beagles under an NIAID contract for preclinical pharmacology and toxicology services. Under this contract, the contractor conducts testing as required in animal models by the FDA, in compliance with Good Laboratory Practice (GLP) guidelines and in a facility accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) or its equivalent. Vocal cordectomies, conducted humanely under anesthesia, may be used in research facilities where numerous dogs are present. This is to reduce noise, which is not only stressful to the animals but can also reach decibel levels that exceed OSHA allowable limits for people and can lead to hearing loss.

From: Billet, Courtney (NIH/NIAID) [E]
Sent: Fri, 29 Oct 2021 20:54:58 +0000
To: Abutaleb, Yasmeen
Subject: mailing

This is the mailing that included NIAID numbers

From: Devin Murphy <info@support.whitecoatwaste.org>
Date: October 25, 2021 at 12:20:04 PM EDT
To: Subject: Fauci's beagles
Reply-To: White Coat Waste Project <support@whitecoatwaste.org>

This is a critical action alert about Fauci's beagle experiments. It's not a fundraising appeal, but we need your help with something else. If you don't want to hear from us anymore, just unsubscribe.

Pssst! Mark, did you hear what Dr. Fauci did this weekend?

Everyone's talking about our #BeagleGate investigation — and they're *really mad*. See below.

Fauci's own NIH department wasted your money on many dog experiments, and locked beagle puppies in cages so biting sand flies could eat them alive.

Dial: 866-284-4107

Press 2

White Coat Waste Project exposed it all. But that's not even the worst part, Mark.

Fauci's white coats also **cut out puppies' vocal cords**... *just so they wouldn't have to hear them cry.*

It's time to call Fauci's department and tell him to stop wasting your money!

POLITELY call NIAID, Dr. Fauci's department, and tell them:

- As a taxpayer, I oppose the wasteful and cruel experiments on beagles you fund with my money.
- A majority of Republicans *and* Democrats also oppose your beagle experiments.
- There's no good reason to feed puppies to sand flies, lock their heads in mesh cages while they're eaten alive, or cut out their vocal cords.
- Stop wasting my money on these beagle experiments... *NOW!*

Mark, let's all give Dr. Fauci a call and tell him to knock it off. He needs to hear that these experiments are **NOT okay**.

Every call makes a big difference.

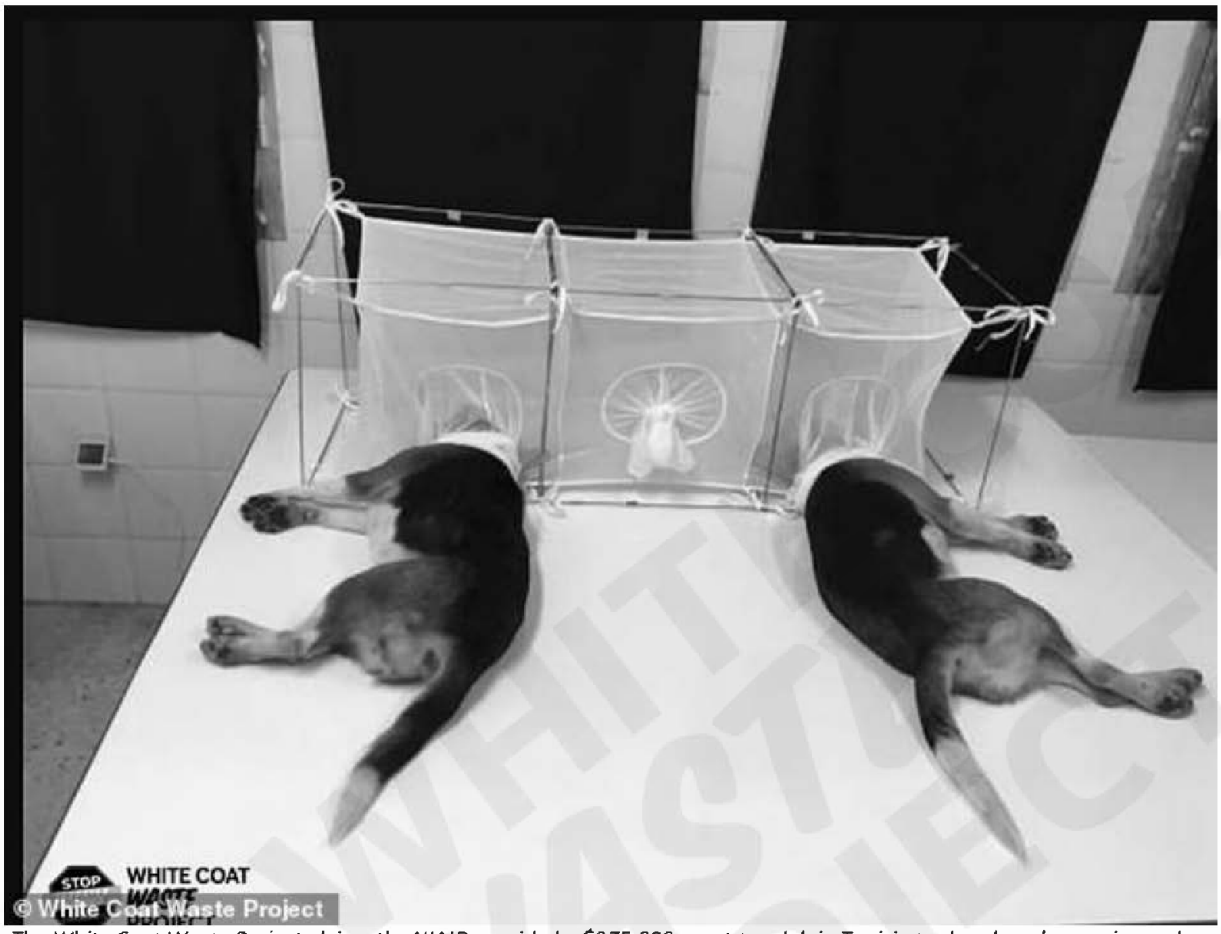
Devin Murphy
Public Policy and Communications Manager
White Coat Waste Project

PS: Can't get through to Dr. Fauci? Here's another number you can use: 301-402-1663. Thanks, Devin.

Daily Mail .com

Fauci under fire for 'puppy experiments' that utilized disease-causing parasites

Dr Anthony Fauci has been condemned for using taxpayers' money to fund animal experiments, including one which saw beagles trapped in cages so flies could eat them, and another where they were 'debarked' before being pumped with drugs and killed.



The White Coat Waste Project claims the NIAID provided a $375,800 grant to a lab in Tunisia to drug beagle puppies and locked their heads in mesh cages so sand flies could eat the dogs filled with hundreds of infected sand flies

One of the most disturbing incidents funded by Fauci's National Institutes of Allergies and Infectious Diseases involved $375,000 given to a Tunisian research lab.

There, puppies had their heads held in cages, before being left for sand flies to eat them alive for research purposes.

Distressing snaps showed the pups with their heads kept inside the muslin-type cages filled with the hungry insects.

Another procedure - which the NIH funded to the tune of $1.8m - saw 44 beagle puppies undergo a 'cordectomy,' which saw their vocal cords cut to stop them barking.

That experiment, which took place in Menlo Park, California, saw the dogs then pumped full of drugs, before being killed and dissected.

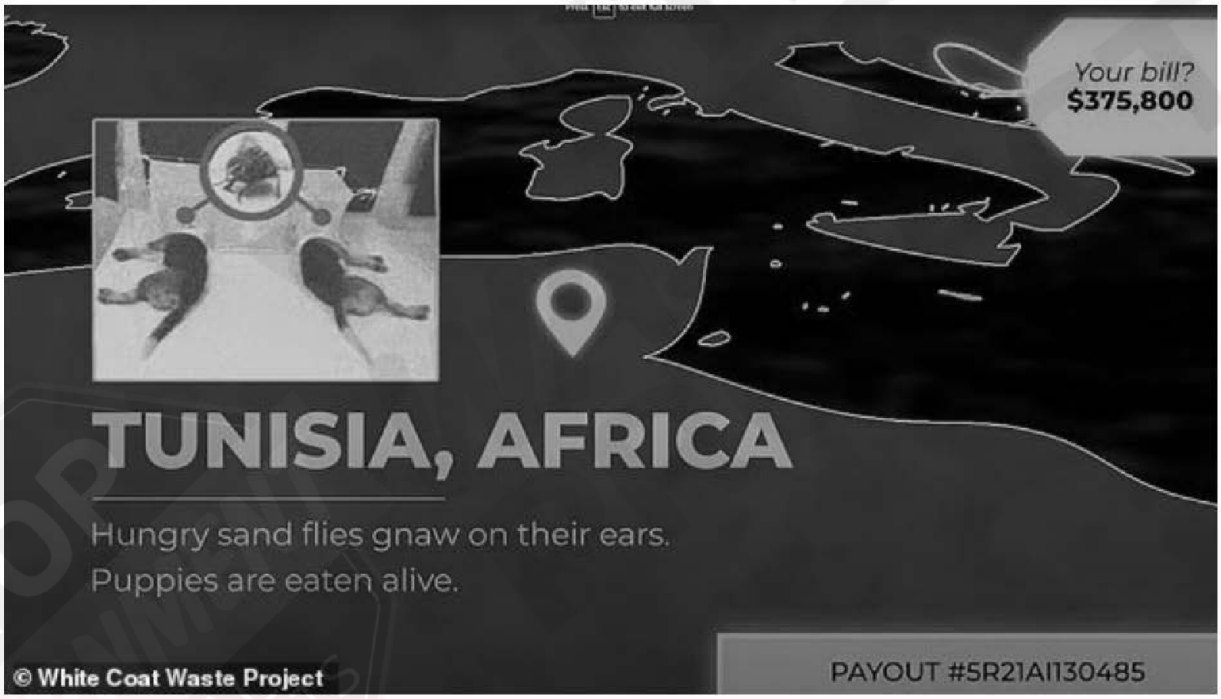
A third, $425,000 set of taxpayer funded tests saw beagles howl in pain while being experimented on in Georgia.

In response, a group of 24 lawmakers, led by Rep. Nancy Mace (R-SC), are now demanding Fauci provide answers about the experiments they believe to be 'cruel' and a 'reprehensible misuse of taxpayer funds.'

'According to documents obtained via a Freedom of Information Act request by taxpayer watchdog group White Coat Waste Project, and subsequent media coverage, from October 2018 until February 2019, NIAID spent $1.86million in taxpayer funds on drug tests involving 44 beagle puppies,' the letter from lawmakers reads.

'While documents state that the ostensible purpose of this study was to 'provide data of suitable quality and integrity to support application to the U.S. Food and Drug Administration (FDA) and other regulatory agencies,' the FDA itself has recently stated that it 'does not mandate that human drugs be studied in dogs."

The experiments were done with funding from the National Institute of Allergy and Infectious Diseases, of which Fauci has been director since 1984.



The sand flies would gnaw on the dogs' ears, eating them alive

Two weeks ago, the White Coat Waste Project revealed that close to $1.68million was spent on experiments on a total of 44 beagles at Sri International in Menlo Park, California, in which the puppies received cordectomies and were force-fed drugs before being killed and dissected.

Another $375,800 was provided as a grant to a lab in **Tunisia** to drug beagle puppies and locked their heads in mesh cages so sand flies could eat the dogs filled with hundreds of infected sand flies, the group revealed in August.

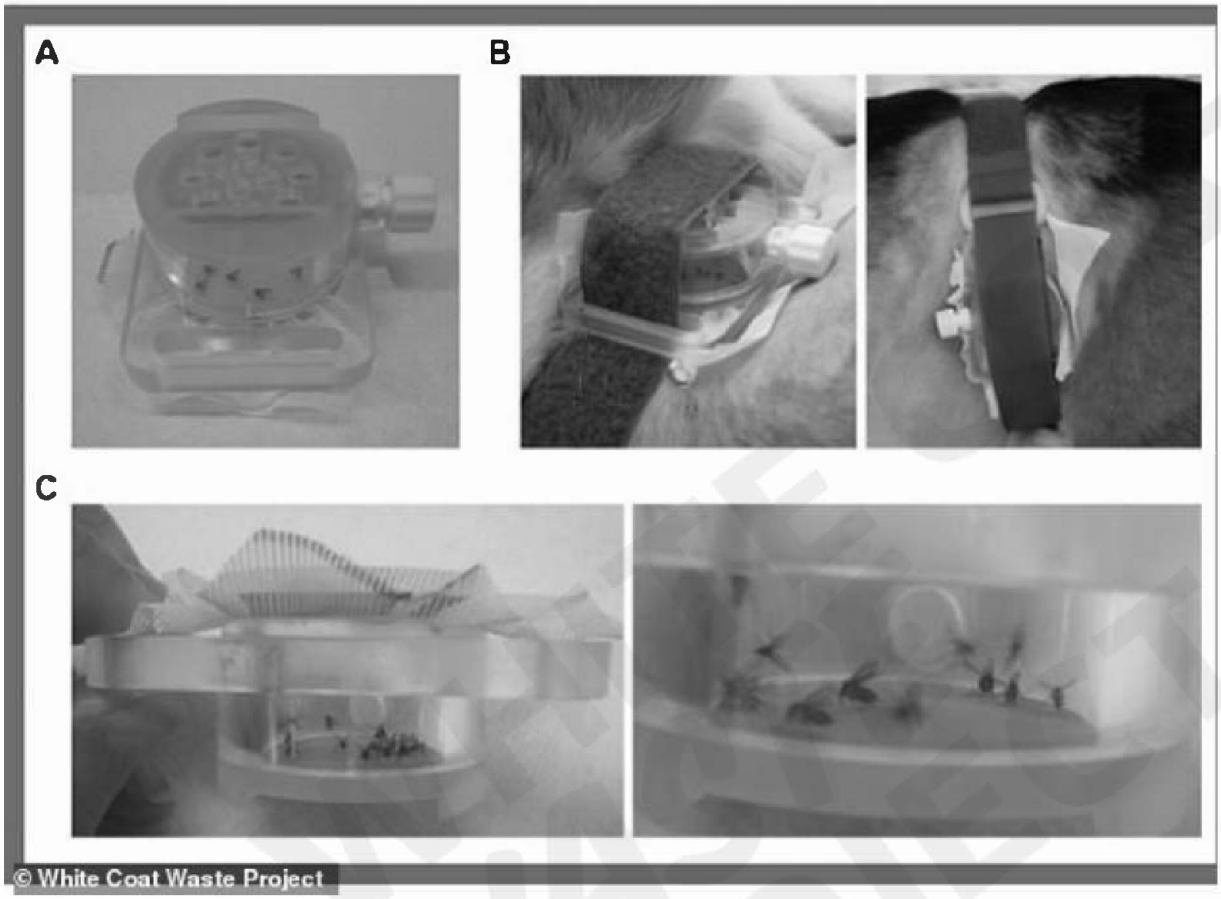
Fauci's team had previously, in 2016, strapped the infectious sand flies to beagles at the NIAID lab in Bethesda, Maryland, allowing them to feed on the dogs for 22 months.

The White Coat Waste Project alleges that the dogs developed infectious legions before researchers killed and dissected them.

This procedure cost $18,430,917.

The White Coat Waste Project also revealed that close to $1.68million was spent on experiments on a total of 44 beagles at Sri International in Menlo Park, California, in which the puppies received cordectomies and were force-fed drugs before being killed and dissected

In 2016, Fauci's strapped sand flies to beagles at the NIAID lab in Bethesda, Maryland, allowing them to feed on the dogs for 22 months



The White Coat Waste Project alleges that the 2016 experiment caused the dogs to develop infectious legions before researchers killed and dissected them

In September 2020, Fauci's agency reportedly authorized a $424,000 grant for animal experiments at the University of Georgia, where healthy beagles were drugged and then intentionally infested with parasite-carrying flies

In September 2020, Fauci's agency reportedly authorized a $424,000 grant for animal experiments at the University of Georgia, where healthy beagles were drugged and then intentionally infested with parasite-carrying flies.

Records show the dogs were 'vocalizing in pain' during the experiments, before being killed.

The group of legislators has asked Fauci and his researchers to answer the following by November 19:

Congress of the United States
Washington, DC 20515

October 21, 2021

Dr. Anthony Fauci
Director
National Institute of Allergy and Infectious Diseases
5601 Fishers Lane, MSC 9806
Bethesda, Maryland 20892

Dear Dr. Fauci,

We write with grave concerns about reports of costly, cruel, and unnecessary taxpayer-funde experiments on dogs commissioned by National Institute of Allergy and Infectious Diseases.

According to documents obtained via a Freedom of Information Act request by taxpayer watchdo group White Coat Waste Project, and subsequent media coverage[1], from October 2018 unt February 2019, NIAID spent $1.68 million in taxpayer funds on drug tests involving 44 beagl puppies. The dogs were all between six and eight months old. The commissioned tests involve injecting and force-feeding the puppies an experimental drug for several weeks, before killing an dissecting them.

Of particular concern is the fact that the invoice to NIAID included a line item for "cordectomy. As you are likely aware, a cordectomy, also known as "devocalization," involves slitting a dog's vocal cords in order to prevent them from barking, howling, or crying. This cruel procedure — which is opposed with rare exceptions by the American Veterinary Medical Association, the American Animal Hospital Association, and others[2] — seems to have been performed so that experimenters would not have to listen to the pained cries of the beagle puppies. This is a reprehensible misuse of taxpayer funds.

While documents state that the ostensible purpose of this study was "to provide data of suitabl quality and integrity to support application to the U.S. Food and Drug Administration (FDA) an other regulatory agencies," the FDA itself has recently stated that it "does not mandate that huma drugs be studied in dogs."[3] This is apparently not the first time that NIAID has commissione drug tests on dogs in recent years.[4]

[1] https://dailycaller.com/2021/10/05/anthony-fauci-niaid-white-coat-waste-anima-experiment-abuse/
[2] https://www.avma.org/resources-tools/literature-reviews/welfare-implications-caning-devocalization
[3] https://wila.com/features/i-team/animals-drug-testing-fda-labs-animals
[4] https://dailycaller.com/2021/08/04/anthony-fauci-niaid-georgia-beagle-experiment/

Twitter

PRINTED ON RECYCLED PAPER

In light of the above, please provide the following information by November 19th:

- How many drug tests involving dogs have been funded by NIAID since January 2018? How much taxpayer money has been spent on this testing?
- Since the Food and Drug Administration has clearly stated that it does not require dog testing for new drugs, why has NIAID continued to commission testing on dogs?
- What has NIAID done to explore the use of non-canine and non-animal alternatives to meet FDA data requirements? Please describe in detail.
- Has NIAID ever made any dogs available for adoption after the conclusion of an experiment or testing? If so, how many? If no, why not?
- Why has NIAID contracted for cordectomies when they appear to be scientifically and medically unnecessary? What is the average cost for each cordectomy performed?

Thank you for your attention to this matter. It is our duty to ensure the responsible stewardship o taxpayer dollars. We look forward to your prompt and thorough response.

Sincerely,

Nancy Mace
Member of Congress

Eleanor Holmes Norton
Member of Congress

Maria Elvira Salazar
Member of Congress

Ted W. Lieu
Member of Congress

Bill Posey
Member of Congress

Cynthia Axne
Member of Congress

A group of 24 bi-partisan legislators are demanding answered and have called the experiments 'cruel' and a 'reprehensible misuse of taxpayer funds'

'De-barking beagles and poisoning puppies in experiments with our tax dollars is a national disgrace that's uniting Republicans and Democrats, and we applaud Rep. Nancy Mace and her colleagues on both sides of the aisle for holding the NIH accountable for this government waste and animal abuse,' **Justin Goodman, Vice President of Advocacy and Public Policy at taxpayer watchdog group White Coat Waste Project**, said in a statement provided to DailyMail.com.

Neither Fauci nor the NIAID immediately responded to our request for comment.

The animal testing allegations come after Fauci was accused of lying to Congress by claiming the US did not fund gain-of-function research at the Wuhan lab blamed for creating COVID.

The National Institutes of Health **admitted on Wednesday** to funding gain of function research on bat coronaviruses in it's Wuhan laboratory despite Dr. Fauci's denials to congress that no such research took place.

The admission came in a **letter** addressed **Kentucky** congressman James Comer, in which NIH's principal deputy director Lawrence A. Tabak refers to a 'limited experiment' conducted to test if 'spike proteins from naturally occurring bat coronaviruses circulating in **China** were capable of binding to the human ACE2 receptor in a mouse model,' at the Wuhan lab.

According to Tabak, the mice infected with the modified bat virus 'became sicker' than those infected with the unmodified bat virus.

The lawmakers expect Fauci (pictured) to answer their questions by November 19

While never using the term, Tabak essentially confirms that gain of function research.

It looks at both transmitting disease between animals and humans and is a way for scientists to alter organisms and diseases.

They can then study how these diseases could become deadlier or more transmissible, took place at the Chinese lab despite consistent denials from Dr. Fauci.

The letter shifts the blame to U.S non profit EcoHealth Alliance, which used NIH money to fund research at the Wuhan Institute of Virology, for not being transparent about the kind of research they were doing.

'EcoHealth failed to report this finding right away, as was required by the terms of the grant,' Tabak wrote in his letter. 'EcoHealth is being notified that they have five days from today to submit to NIH any and all unpublished data from the experiments and work conducted under this award.'

Fauci has testified on several occasions before Congress that American taxpayers never financed what is called 'gain of function' research in China - which would make a virus more contagious or deadly.

In May, Fauci **testified** that the NIH 'has not ever and does not now fund gain of function research in the Wuhan Institute of Virology.'

However, in September, The Intercept revealed it had received 900 pages of documents detailing the work of EcoHealth Alliance's research in Wuhan, China.

The files showed that in 2014, the National Health Institute approved a five-year, yearly grant of $666,000 a year for five years ($3.3million) for EcoHealth Alliance, a US research organization, into bat **coronavirus**.

NIH's principal deputy director Lawrence A. Tabak admitted to funding gain-of-function research on bat coronaviruses in it's Wuhan laboratory

The Wuhan Institute of Virology has been fingered as the potential source of COVID-19. It received $599,000 in US government money from the EcoHealth Alliance for its study on coronaviruses in bats

EcoHealth Alliance, in its proposal to the NIH, acknowledged the risks involved were 'the highest risk of exposure to SARS or other CoVs' among staff, who could then carry it out of the lab.

The NIH gave them the money anyway - something Fauci was previously forced to admit when testifying before Congress in May this year. EcoHealth Alliance then gave $599,000 of the money to the Wuhan Institute of Virology.

The approval notice for the grant is 528 pages long. It describes how EcoAlliance would receive yearly payments, totaling $3.3million over five years.

The funding was renewed in 2019 but was abruptly cut short in April 2020, once COVID-19 had spread throughout the world.

To stop taxpayer-funded animal tests, we must first stop the $20 billion+ in wasteful government spending.

We find, expose, and de-fund wasteful government spending on animal experiments. To change public policy, we unite liberty lovers and animal lovers with hard-hitting investigations and public policy campaigns.

DONATE

PO Box 26029
Washington, DC 20001

White Coat Waste Project is a 501(c)(3) bipartisan coalition.
Contributions are tax-deductible.

Unsubscribe

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EIN 46-0856543

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Fri, 29 Oct 2021 02:28:00 +0000
To: Abutaleb, Yasmeen
Subject: RE: Snopes: Fauci's Guinea Pigs? Smear Campaign Rehashes 1980s HIV Clinical Drug Trial https://bit.ly/3CBn7b6

Yasmeen:
I will send you an e-mail via my gmail account.
Tony

From: Abutaleb, Yasmeen <Yasmeen.Abutaleb@washpost.com>
Sent: Thursday, October 28, 2021 4:56 PM
To: Fauci, Anthony (NIH/NIAID) [E] (b)(6)
Subject: Re: Snopes: Fauci's Guinea Pigs? Smear Campaign Rehashes 1980s HIV Clinical Drug Trial https://bit.ly/3CBn7b6

Thank you for sending. And this article is especially helpful since someone took the time to unpack it. I saw the crazy articles and had no idea what it was based on.

From: Fauci, Anthony (NIH/NIAID) [E] (b)(6)
Sent: Thursday, October 28, 2021 4:12 PM
To: Abutaleb, Yasmeen <Yasmeen.Abutaleb@washpost.com>
Subject: FW: Snopes: Fauci's Guinea Pigs? Smear Campaign Rehashes 1980s HIV Clinical Drug Trial https://bit.ly/3CBn7b6

CAUTION: EXTERNAL SENDER

As per our discussion, more of the same.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (b)(6)
FAX: (301) 496-4409
E-mail: (b)(6)

From: Folkers, Greg (NIH/NIAID) [E] (b)(6)
Sent: Thursday, October 28, 2021 1:51 PM
Subject: Snopes: Fauci's Guinea Pigs? Smear Campaign Rehashes 1980s HIV Clinical Drug Trial
https://bit.ly/3CBn7b6 [bit.ly]

Fauci's Guinea Pigs? Smear Campaign Rehashes 1980s HIV Clinical Drug Trial

Social media posts falsely claim that Dr. Anthony Fauci "murdered disabled children" in pursuit of an AIDS vaccine in the 1980s.

- Dan Evon [snopes.com]
- Published 27 October 2021

Share on Facebook [facebook.com]Share on Twitter [twitter.com]Share on Pinterest [pinterest.com]Share on Reddit [reddit.com]Share via Email

Image via White House / Flickr [flickr.com]

Key Facts

- In the 1980s, the National Institutes of Health, where Dr. Anthony Fauci served as the director of the Office of AIDS, sponsored clinical drug trials to treat children with HIV/AIDs, as there were no approved treatments for children at the time. HIV-infected foster children were enrolled in these clinical drug trials.
- Beginning in 2004, concerns began to be raised about these clinical trials, most famously in the 2005 BBC documentary "Guinea Pig Kids." The BBC has since apologized for this documentary,

stating that it did not properly investigate the claims and that the medical opinions expressed in the documentary largely relied on an advocate for the fringe (and false) idea that HIV is unconnected with AIDS.

- A 2009 investigation found that the most grave allegations at the center of this controversy — that children died from "lethal" doses, that children were ripped away from their families, and that this trial targeted minority children — were false.
- The investigation did find, however, that while health officials developed protocols to ensure that proper consent was given to enroll foster children in this program, these protocols weren't always followed.
- A viral image associated with this rumor shows a child with "Stevens-Johnson Syndrome." This child was reportedly treated during this clinical trial, but this skin disease was not caused by the clinical trial drugs.
- The mortality rate from AIDS among children was drastically lowered between 1980 and 2000.

In October 2021, as the COVID-19 pandemic claimed its 700,000th death [nytimes.com] in the United States, a number of rumors were spread on social media to disparage Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases (NIAID) at the National Institutes of Health (NIH) and chief medical adviser to the president. Factions of the internet were pushing back against mandatory vaccinations. One set of allegations [snopes.com], for example, placed personal blame on Fauci for "torturing dogs" in medical research. This prompted more than a dozen members of Congress to sign a letter condemning what they called "a reprehensible misuse of taxpayer funds."

Stoking public outrage further, accusations surfaced claiming that during the 1980s, Fauci had "murdered disabled children [twitter.com]" in an attempt to find a cure for HIV/AIDS. Social media posts described Fauci as a "mad scientist" who had experimented on healthy children [twitter.com] to find an AIDS vaccine, claimed that Fauci funded a "Tuskgege-like [sic] Aids experiment [twitter.com]," and said Fauci is akin to Joseph Mengele [twitter.com], a Nazi doctor who performed inhumane experiments on Jews during the Holocaust.

[snopes.com]

A Clinical Drug Trial

In the 1980s, at the start of the AIDS epidemic, hundreds of children were born every year with HIV. At the time, there were no approved treatments for children with this disease, so New York City's Administration for Children's Services developed a program, funded in part by the NIH, that allowed HIV-infected foster children to participate in clinical drug trials.

Fauci told the House Human Resources and Intergovernmental Relations subcommittee in 1989: "Traditionally, children have not been entered into clinical trials of new drugs until the drugs have been shown to be safe and effective in adults ... But we believe that the life-threatening nature of HIV infection may justify a modification of this policy ... In consultation with the Food and Drug Administration, trials of new agents are now being planned and conducted in such a way that development and testing of the drug in children occurs nearly in parallel with testing in adults."

The social media smear campaign employs gross exaggerations that are based on false information about this program. For starters, those spreading this rumor claim that Fauci performed "heinous medical experiments," but that is not an accurate way to describe a clinical trial. The World Health Organization (WHO) writes [who.int]: "Clinical trials in children are essential to develop age-specific, empirically-verified therapies and interventions to determine and improve the best medical treatment available."

BBC Apologizes for Pushing Unfounded Claims

The false accusations stem from an article entitled "The House That AIDS Built [altheal.org]" that was independently published in 2004. This report, which does not mention Fauci, led to a number of news articles [npr.org] and a BBC documentary called "Guinea Pig Kids," which claimed that the children had been given lethal drugs, that they were forcibly separated from their parents, and that the clinical trial targeted minority children.

The BBC has since apologized for this documentary and issued a statement saying [web.archive.org] that it had not properly investigated the claims. The BBC also noted that the medical opinions expressed in the documentary largely relied on a person who was an advocate of the idea that HIV was not connected to AIDS (a fringe — and false — idea that was not the consensus of the scientific community), and that the BBC failed to seek other medical opinions.

Vera Investigation Found That No Children Died from the Drugs

These allegations also spurred an investigation by the Vera Institute of Justice. In 2009, Vera published its findings, saying that there was no evidence to support the most grave allegations. Children did not die as a result of these drug trials, children were not forcibly separated from their families in order to participate in the trials, and this program did not target minority children. Vera found that some children suffered serious side effects from the drugs, but also noted that physicians adjusted their treatments to minimize these effects.

Here is an excerpt from this report [vera.org]:

Vera reviewers found little or no evidence in the information examined for some of the concerns that prompted Children's Services to initiate this study.

Many children—inside and outside of foster care and clinical trials—died because of complications of HIV/AIDS during the late 1980s and 1990s. Eighty of the 532 children who participated in clinical trials or observational studies died while in foster care; 25 of them died while enrolled in a medication trial. Vera medical staff did not find, however, that any child's death was caused directly by clinical trial medication.

The child welfare files contained information indicating that some children experienced serious toxicities, or side effects, from trial medications, such as reduced liver function or severe anemia. These toxicities were consistent with toxicities described in published articles about the trials. Vera reviewers found many instances where a physician made adjustments to a child's treatment in light of these problems as required by the clinical trial protocol.

Some Children Were, in Fact, Enrolled Without Proper Consent

The report did find, however, that that officials had failed to follow protocols in a few cases where children were entered into the program without sufficient parental consent. The New York Times reported [nytimes.com] in 2009:

Sixty-four children participated in 30 medication trials that were not reviewed by a special medical advisory panel, as the city's policy required. And 21 children participated in trials that the panel had reviewed but had not recommended. (In both cases, 13 of the enrollments occurred before the children were placed in foster care.)

Moreover, the informed consent forms from biological parents or guardians were missing from the child-welfare files in 21 percent of cases, even though regulations and the city's own policies mandated that they be kept, Mr. Ross said. The state's Department of Health refused Vera's request to review medical records, which might have included some additional consents...
The commissioner of the Administration for Children's Services, John B. Mattingly, said in an interview about the report: "In very general terms, it puts to rest the most egregious charges that were being made by a few people three or four years ago. No children were yanked from their homes. That is all completely false."

Stevens-Johnson Syndrome

The 2021 social media posts targeting Fauci for blame frequently included photographs of a child apparently suffering from a severe skin condition. These pictures were frequently shared along with the caption: "Think Fauci torturing and killing dogs is bad? Wait till you learn what he did to orphaned kids in NYC for HIV 'research.'"

[snopes.com]

This photograph was reportedly taken at the Incarnation Children's Center, one of the medical centers in New York that enrolled HIV-infected foster children in the clinical drug trials. The image was included in the 2004 article "The House That AIDS Built" along with the caption: "Photos of an infant with Stevens-Johnson Syndrome, a blistering, peeling, potentially fatal skin rash. It is one of the known side-effects of the AIDS drug Nevirapine. Nevirapine is one of the primary drugs being readied for distribution in Africa."

This caption does not state that the clinical trial drugs actually caused this skin condition, only that this skin condition *could be* caused by such drugs. In Vera's report [vera.org], the investigators noted that

two children involved in the trial had Stevens-Johnson Syndrome, but added that neither of these cases occurred during the trial:

Stevens-Johnson Syndrome is a severe allergic reaction to medications, and may be initiated by many medications including the antibiotic trimethoprim-sulfamethoxazole (Bactrim or Septra). Two children in the Vera review experienced Stevens Johnson Syndrome. Neither case occurred during a clinical trial.

HIV Mortality Rate Fell

Though the details of this 1980s clinical drug trial were rehashed and misinterpreted in 2021 to claim that Fauci had "murdered" or "tortured" children, that simply isn't the case. This clinical drug trial helped treat children who were fighting a disease with a high mortality rate. This trial, along with other research and programs conducted in the '80s and '90s, led to a reduced mortality rate from HIV.

A 2009 news release from the NIH [nih.gov] reads:

In 1994, the mortality rate for HIV-infected children and youth younger than 21 years of age in the United States was 7.2 deaths per 100 person years (a rate based on the number of children in the study and the total number of years each child was followed). By 2000, that rate had plummeted to 0.8 deaths per 100 person years and remained stable through 2006. The mean age at death for HIV-infected youth in the study more than doubled from 8.9 years in 1994 to 18.2 years in 2006.

Although this represents a dramatic improvement in survival, the death rate for children with HIV is approximately 30 times higher than that of similarly aged U.S. children who do not have HIV. Multi-organ failure and kidney disease are now major causes of death for HIV-infected children and adolescents. Infections also continue to cause deaths in this group of patients. However, the type of infections has changed, from infections traditionally associated with AIDS to infections that are more common in children without HIV infection.

"The findings are very encouraging, but they still show a need for improvement," said Alan Guttmacher, M.D., acting director of NICHD. "For both adults and children, combination antiretroviral therapy is highly effective in preventing the opportunistic infections and other complications resulting from HIV infection. We must now better understand and pursue treatments for children and adolescents to address the other conditions resulting from HIV infection."

Sources:

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- Dan Evon [snopes.com]
- Published 27 October 2021

From: Billet, Courtney (NIH/NIAID) [E]
Sent: Wed, 27 Oct 2021 17:32:21 +0000
To: Abutaleb, Yasmeen
Subject: RE:

FYI, Americans for Medical Progress also issued something on their website

https://www.amprogress.org/research-news/2021/10/ga-on-recent-claims-surrounding-federally-funded-infectious-disease-research-in-dogs/

From: Billet, Courtney (NIH/NIAID) [E]
Sent: Wednesday, October 27, 2021 1:25 PM
To: Abutaleb, Yasmeen <Yasmeen.Abutaleb@washpost.com>
Subject:

STATEMENT FROM NIAID:

All animals used in NIH-funded research are protected by laws, regulations, and policies to ensure the smallest possible number of subjects and the greatest commitment to their welfare. Institutions receiving funds, including those in other countries, must conduct research that involves animals in accordance with the Public Health Service Policy on the Humane Care and Use of Laboratory Animals. The proposed use of animals in research is evaluated during peer review for both contract and grant proposals, and animals used in research are to be provided with appropriate anesthesia and veterinary care. The principles for what is -- and is not -- allowed are governed both by regulations administered by the NIH Office of Laboratory Animal Welfare and the grantee institution's animal care and use committee (IACUC), and these principles apply to the situations described below.

With respect to the allegations by the White Coat Waste Project:

- The images of beagles were drawn from a manuscript published in July 2021 in the journal PLOS Neglected Tropical Diseases. The manuscript mistakenly cited support from NIAID, when in fact NIAID did not support this specific research shown in the images of the beagles being circulated. NIAID has funded a separate project involving the study of a vaccine to prevent leishmaniasis, a serious parasitic disease transmitted by sand flies that poses a threat in particular to US troops and other personnel, as well as US military dogs, in areas where the disease is endemic. In the NIAID-supported study, twelve dogs were immunized with the experimental vaccine at the Pasteur Institute of Tunis, and then let out in an enclosed open space during the day, during high sandfly season in an area of Tunisia considered to be hyper-endemic for canine leishmaniasis. The goal of the research was to determine if the experimental vaccine prevented the dogs from becoming infected in a natural setting. Developing a vaccine to

prevent leishmaniasis is an important research goal. In this case, the researchers are supported through multiple different funding sources. The NIAID grant ended in July 2021. White Coat Waste also noted a 2016 leishmaniasis project conducted in NIAID laboratories; dogs were the necessary animal model for the research, and the researchers ensured that the dogs experienced no discomfort.

- The research described by the White Coat Waste Project at the University of Georgia focuses on lymphatic filariasis (LF), a mosquito-transmitted parasitic disease that affects millions of people in many countries around the world. According to the World Health Organization, LF is the second leading cause of human disability in endemic countries. People disfigured by LF are frequently unable to work because of their disability. No licensed prophylactic vaccine is available to prevent LF; the development of an effective vaccine against the parasites that cause LF could prevent significant disease and suffering globally. The vaccine candidate under investigation in the NIAID-supported project at the University of Georgia targets a protein that is common among multiple species of filarial parasites. It potentially could be used to prevent LF in humans as well as filarial infections, including heartworm, in dogs. Dogs are a natural host for the B. pahangi parasite and exhibit clinical and pathologic changes like those seen in human filarial infection. As such, they represent an appropriate model for testing this investigational vaccine prior to evaluation in humans.

- There also are concerns raised about work involving beagles under an NIAID contract for preclinical pharmacology and toxicology services. Under this contract, the contractor conducts testing as required in animal models by the FDA, in compliance with Good Laboratory Practice (GLP) guidelines and in a facility accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) or its equivalent. Vocal cordectomies, conducted humanely under anesthesia, may be used in research facilities where numerous dogs are present. This is to reduce noise, which is not only stressful to the animals but can also reach decibel levels that exceed OSHA allowable limits for people and can lead to hearing loss.

From: Abutaleb, Yasmeen
Sent: Wed, 27 Oct 2021 15:18:43 +0000
To: Billet, Courtney (NIH/NIAID) [E]
Subject: Re: links

That's absolutely horrible. I'm so sorry you've all had to endure that.

Do you want to give me a call when you have a minute? It might be easier to talk through a couple things that way than over email. I'm at (b)(6)

From: Billet, Courtney (NIH/NIAID) [E] <(b)(6)
Sent: Wednesday, October 27, 2021 11:14 AM
To: Abutaleb, Yasmeen <Yasmeen.Abutaleb@washpost.com>
Subject: RE: links

On background please:
Happy to send some examples. I need to coordinate on this end to de-identify and make sure it's ok with the security team to share, because they are following up on a number of them.
There have been hundreds and hundreds. Overnight, on one phone line alone, more than 200 voice mails. That's just overnight. We've had our staff stop answering that line and just let all the calls go to voicemail, so they are not subject to the abuse.

From: Abutaleb, Yasmeen <Yasmeen.Abutaleb@washpost.com>
Sent: Wednesday, October 27, 2021 11:03 AM
To: Billet, Courtney (NIH/NIAID) [E] (b)(6)
Subject: Re: links

If you get time today or tomorrow, would you be able to send me some of the most egregious examples of the attacks? We want to start compiling them in a single spreadsheet. Thank you!

From: Abutaleb, Yasmeen <Yasmeen.Abutaleb@washpost.com>
Sent: Wednesday, October 27, 2021 10:01 AM
To: Billet, Courtney (NIH/NIAID) [E] (b)(6)
Subject: Re: links

Thank you very much! That's a good idea on Dana — I'll follow up and do that

---

From: Billet, Courtney (NIH/NIAID) [E](b)(6)
Sent: Wednesday, October 27, 2021 10:00 AM
To: Abutaleb, Yasmeen <Yasmeen.Abutaleb@washpost.com>
Subject: links

CAUTION: EXTERNAL SENDER

https://johnpavlovitz.com/2021/10/25/the-mortal-sin-of-anthony-fauci/?fbclid=IwAR3WZ4c5uvgNMye 1LH6JKD86rUReE37IJxJN1dbU5W3uE crpYt-9RYyg8 [johnpavlovitz.com]

also

https://twitter.com/ASlavitt/status/1453129372647391232?ref src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Etweet [twitter.com]

You might also want to ask Dana M about the emails he is getting in reaction to his column.

From: Milbank, Dana
Sent: Wed, 27 Oct 2021 14:24:03 +0000
To: Billet, Courtney (NIH/NIAID) [E]
Subject: Re: I hope you die a slow painful death

yep. spoke to Satoskar and he confirmed all. The craziest part is he's actually saving the lives of dogs (and people). thank you.

From: Billet, Courtney (NIH/NIAID) [E] (b)(6)
Sent: Wednesday, October 27, 2021 10:20 AM
To: Milbank, Dana <Dana.Milbank@washpost.com>
Subject: RE: I hope you die a slow painful death

Confirming that the info pasted below refers to the grant we discussed Monday -- for the work involving the vaccinated dogs in the open area.

From: Billet, Courtney (NIH/NIAID) [E]
Sent: Wednesday, October 27, 2021 9:08 AM
To: Milbank, Dana <Dana.Milbank@washpost.com>
Subject: RE: I hope you die a slow painful death

Living the dream. Welcome!

Our grantee, Dr. Satoskar, sent an email to our program staff on Monday acknowledging their error in listing NIAID funding support for the work described in the published research (manuscript attached). This is the one that pic of the dogs came from. The authors need to be the ones to get the correction made, and Dr. Satoskar told us that they have indeed reached out to the journal to request the correction. You could verify this directly with Dr. Satoskar if that would help. He's at Ohio State, contact info below.

Abhay R Satoskar MBBS, MD, PhD, FRCPath
Professor & Vice Chair for Research
University Pathology Services Endowed Anatomic Pathology Professor
Departments of Pathology and Microbiology
Wexner Medical Center
The Ohio State University
(b)(6)

I'll have to have someone look into what you attached below to see what that's attached to. It might take a bit just because of the volume we're all dealing with. Appreciate your bearing with us.

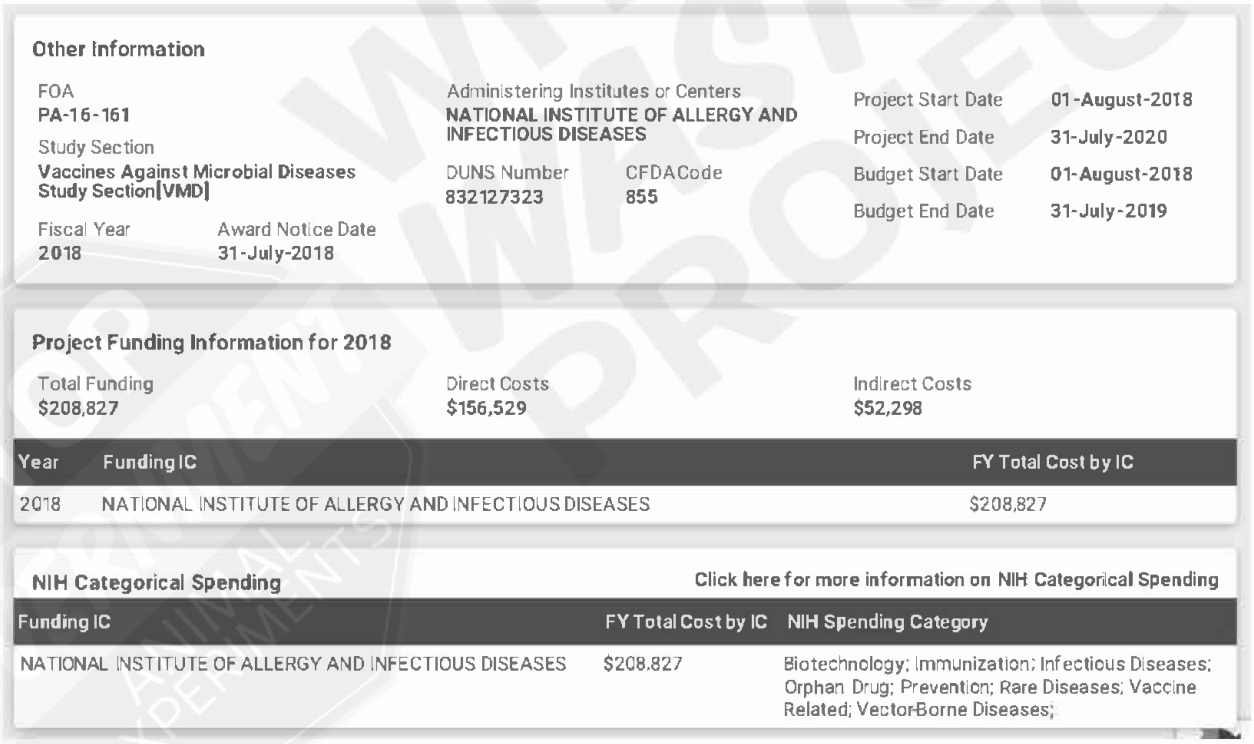
We appreciate the efforts to shed light on this dynamic. Andy Slavitt also tweeted about the attacks on Dr. Fauci last night and might be a good one to talk to for a follow-up column if you do one.

https://twitter.com/ASlavitt/status/1453129372647391232?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Etweet [twitter.com]

From: Milbank, Dana <Dana.Milbank@washpost.com>
Sent: Tuesday, October 26, 2021 9:39 PM
To: Billet, Courtney (NIH/NIAID) [E] (b)(6)
Subject: Fw: I hope you die a slow painful death

Wow. Getting many, many of these. I gather Tucker just stirred the pot some more. I can only imagine what your days must be like.

I might do a follow-up column on the reaction, and the imperviousness to facts. Do you have any more info that could further prove that you didn't fund the Tunisia study involving feeding the anesthetized dogs to sand flies? Will the attribution from the article be removed? Is there a paper trail for the grants? People point to this as a smoking gun. Does this fund the study involving the vaccinated dogs?



Other Information

FOA PA-16-161	Administering Institutes or Centers NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES	Project Start Date	01-August-2018
Study Section Vaccines Against Microbial Diseases Study Section[VMD]	DUNS Number 832127323	CFDA Code 855	Project End Date 31-July-2020
Fiscal Year 2018	Award Notice Date 31-July-2018		Budget Start Date 01-August-2018
			Budget End Date 31-July-2019

Project Funding Information for 2018

Total Funding	Direct Costs	Indirect Costs
$208,827	$156,529	$52,298

Year	Funding IC	FY Total Cost by IC
2018	NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES	$208,827

NIH Categorical Spending — Click here for more information on NIH Categorical Spending

Funding IC	FY Total Cost by IC	NIH Spending Category
NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES	$208,827	Biotechnology; Immunization; Infectious Diseases; Orphan Drug; Prevention; Rare Diseases; Vaccine Related; Vector-Borne Diseases;

From: [(b)(6)]
Sent: Tuesday, October 26, 2021 8:59 PM
To: Milbank, Dana <Dana.Milbank@washpost.com>
Subject: I hope you die a slow painful death

CAUTION: EXTERNAL SENDER

I wish I could put you in a cage a let you get eaten alive and I wouldn't remove your vocal cords so I could here you suffer for days it would be like beethovens no 9 to my ears you fucking dick I hope you DIE 🤬🤬🤬🤬 God I love this country and freedom of speech LETS GO BRANDOM FUCK DR FAUCCI

Sent from Yahoo Mail on Android [go.onelink.me]

From: Billet, Courtney (NIH/NIAID) [E]
Sent: Wed, 27 Oct 2021 13:08:17 +0000
To: Milbank, Dana
Subject: RE: I hope you die a slow painful death
Attachments: journal.pntd.0009647.pdf

Living the dream. Welcome!

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Abhay R Satoskar MBBS, MD, PhD, FRCPath
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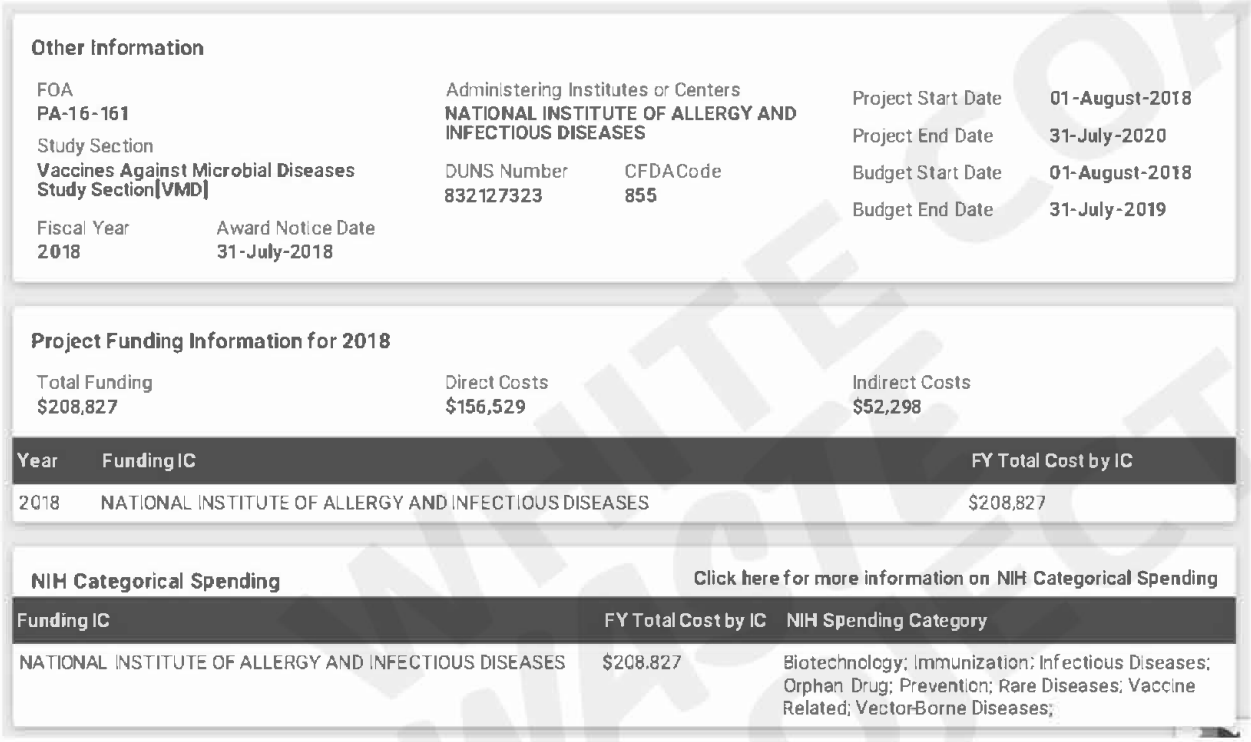

Other Information

FOA PA-16-161	Administering Institutes or Centers NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES	Project Start Date	01-August-2018
Study Section Vaccines Against Microbial Diseases Study Section[VMD]	DUNS Number 832127323 / CFDA Code 855	Project End Date	31-July-2020
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NIH Categorical Spending — Click here for more information on NIH Categorical Spending

Funding IC	FY Total Cost by IC	NIH Spending Category
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Sent from Yahoo Mail on Android [go.onelink.me]

PLOS NEGLECTED TROPICAL DISEASES

RESEARCH ARTICLE

Enhanced attraction of sand fly vectors of *Leishmania infantum* to dogs infected with zoonotic visceral leishmaniasis

Ifhem Chelbi[1], Khouloud Maghraoui[1], Sami Zhioua[2], Saifedine Cherni[1], Imen Labidi[1], Abhay Satoskar[3], James G. C. Hamilton[4], Elyes Zhioua[1]*

1 Unit of Vector Ecology, Institut Pasteur de Tunis, Tunis, Tunisia, 2 Laboratory of Bio-informatic, Mathematics, Statistic, Institut Pasteur de Tunis, Tunis, Tunisia, 3 Departments of Pathology and Microbiology, Ohio State University, Columbus, Ohio, United States of America, 4 Division of Biomedical and Life Sciences, Lancaster University, Lancaster, United Kingdom

* elyes.zhioua@gmail.com

OPEN ACCESS

Citation: Chelbi I, Maghraoui K, Zhioua S, Cherni S, Labidi I, Satoskar A, et al. (2021) Enhanced attraction of sand fly vectors of *Leishmania infantum* to dogs infected with zoonotic visceral leishmaniasis. PLoS Negl Trop Dis 15(7): e0009647. https://doi.org/10.1371/journal.pntd.0009647

Editor: David Soeiro Barbosa, Universidade Federal de Minas Gerais, BRAZIL

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Data Availability Statement: All relevant data are within the manuscript.

Funding: EZ and AS received funding from the US National Institutes of Health -grant number R21AI130485, and from the Wellcome Trust-grant number 209336/Z/17/7. The funders had no role in study design, data collection or analysis, decision to publish, or preparation of the manuscript.

Competing interests: The authors have declared that no competing interests exist.

Abstract

Background

The sand fly *Phlebotomus perniciosus* is the main vector of *Leishmania infantum*, etiological agent of zoonotic visceral leishmaniasis in the Western Mediterranean basin. Dogs are the main reservoir host of this disease. The main objective of this study was to determine, under both laboratory and field conditions, if dogs infected with *L. infantum*, were more attractive to female *P. perniciosus* than uninfected dogs.

Methodology/Principal findings

We carried out a series of host choice experiments and found that infected dogs were significantly more attractive to *P. perniciosus* than uninfected dogs in the laboratory as well as in the field. Significantly more *P. perniciosus* fed on infected dogs than on uninfected dogs. However, the fecundity of *P. perniciosus* fed on infected dogs was adversely impacted compared to uninfected dogs by lowering the number of laid eggs. *Phlebotomus perfiliewi*, the second most abundant sand fly species in the field site and a competent vector of *L. infantum* had similar trends of attractivity as *P. perniciosus* toward infected dogs under field conditions.

Conclusions

The results strongly suggest that *L. infantum* causes physiological changes in the reservoir host which lead to the host becoming more attractive to both male and female *P. perniciosus*. These changes are likely to improve the chance of successful transmission because of increased contact with infected hosts and therefore, infected dogs should be particularly targeted in the control of zoonotic visceral leishmaniasis in North Africa.

Author summary

Zoonotic visceral leishmaniasis is a neglected tropical disease caused by the parasite *Leishmania infantum*. In the Western Mediterranean basin, *Phlebotomus perniciosus* and *Phlebotomus perfiliewi* are the main vectors of *L. infantum*, and dogs are the main reservoir host of the parasite. In Northern Africa, ZVL affect mostly children less than 5 years. Understanding the chemical ecology governing the relationships between the vector, the parasite and the reservoir host is of major epidemiological importance. Previous studies based on rodent models have shown that the infection with *L. infantum* enhanced the attractiveness towards *Lutzomyia longipaplis*, the main vector of ZVL in the Americas. In this study, we reported for the first time that infected dogs are highly attractive to both male and female *P. perniciosus* under laboratory and filed conditions compared to uninfected dogs. Similar patter were observed with wild populations of *P. perfiliewi*. Our results provided strong evidence that the parasite manipulate the reservoir hosts to enhance its transmission success by the vector.

Introduction

Zoonotic visceral leishmaniasis (ZVL) is a vector-borne zoonotic disease caused by the parasite *Leishmania infantum*, which is transmitted by the bite of female phlebotomine sand flies. ZVL can affect both humans and canines and is considered by the WHO to be one of the most important neglected tropical diseases. It affects about 0.5 million people per y [1,2] and is widespread in South and Central America, North Africa, Southern Europe, Middle and Far eastern countries. ZVL distribution i strongly correlated with poverty [3] and in Tunisia is a peri-domestic disease mostly endemic in rural areas affecting families of low social and economic status [4].

ZVL is a systemic disease that frequentlyresults in the death of infected individuals if untreated. No effective vaccine for human visceral leishmaniasis is available [5] and in Tunisia, the disease has an estimated incidence between 100 and 160 cases per 100,000 inhabitants [2] with a mortality rate of 6% [6]. The incidence of ZVL is highest among children between 1 and 2 years of age [4]. In a previous study, we showed that paediatric patients admitted 15 days after onset of symptoms, with bleeding, white cell counts below 4,000/mm^3, and cytolysis at admission should be considered severe cases and subsequently, they are at high risk of mortality [7].

Domestic dogs are the main reservoir host for *L. infantum* in the Old World [8,9] and in the New World [10] and sand flies of the subgenus *Larroussius*, predominantly *Phlebotomus perniciosus*, are the main vectors of ZVL in Tunisia [9,11,12]. Other sand fly species of the subgenus *Larroussius*, mainly *Phlebotomus perfiliewi*, also play an important role in the transmission of ZVL throughout the Mediterranean basin including Tunisia [12–14]. In previous studies in Tunisia we showed that the prevalence of ZVL in dogs is an important parameter for determining transmission to humans [4,15]. Therefore, understanding the dynamics of transmission of the parasite between the canine reservoir host and the sand fly vector *P. perniciosus* is of major epidemiological importance.

Sand flies use odours, heat, CO_2 of the host [16–18], and sex/aggregation pheromones emitted by male sand flies [19,20] to identify and orientate towards potential host animals for blood-meal and mate acquisition. While *P. perniciosus* can feed on a wide variety of vertebrate hosts to obtain blood meals [21], dogs remain the main reservoir host for *L. infantum* [4,9]. From an eco-epidemiological view, the parasite requires an overlap between the vector (*P. perniciosus*) and the reservoir host (dogs), which is a prerequisite for the emergence of a ZVL

focus. To achieve this overlap, some parasites are known to manipulate the host animal by changing its odour or behaviour to improve their chances of transmission [22]. It was shown that following infection with *L. infantum*, hamsters became significantly more attractive to females *Lutzomyia longipalpis*, vector of ZVL in South America [23,24].

We hypothesized that physiological changes in dogs parasitized by *L. infantum* change the dog's odour making them more attractive to *P. perniciosus* and therefore enhancing the parasite' s transmission success. To test this hypothesis, attractiveness of infected and uninfected dogs to *P. perniciosus* were assessed under both laboratory and field conditions.

Materials and methods

Ethics statement

The maintenance of animals and the experimental procedures used in this research program followed the Animal Care and Use Protocol which is approved by the Institutional Animal Care and Use Committee of the Institut Pasteur de Tunis, Tunisia (2018/01/I/ES/IPT/V0). Infected dogs used in this research program were obtained from a previous study that was approved by the Institutional Animal Care and Use Committee of the Institut Pasteur de Tunis, Tunisia (IPT/UESV/27/2012). This work was performed under the Assurance of the US Office of Laboratory Animal Welfare [Assurance approval F-16-00170 (A5743-01)]. The Institut Pasteur de Tunis complies with the European Directive for the Protection of Vertebrate Animals used for experimental and other scientific purposes (2010/63/EU).

Assessing the attractiveness of female *Phlebotomus perniciosus* to infected and uninfected dogs under laboratory conditions

Sand flies used in this study were from a colony originated from Tunisia and maintained at the Laboratory of Vector Ecology in the Institut Pasteur de Tunis since 2003 [25,26]. Dogs used in the study were from the kennels of the Institut Pasteur de Tunis. We used 6 Beagle dogs that had been naturally infected with *L. infantum* as part of a different study to investigate the efficacy of a vaccine against canine ZVL. These dogs had been exposed to wild sand fly bites under natural conditions in a ZVL focus located at Borj Youssef in the governorate of Ariana (36°57'N, 10° 05'E) and were from the unvaccinated (control) group. Infection status of the infected dogs was confirmed by indirect immunofluorescent antibody test (IFAT) as described by Ben Slimane et al. (2014) [9]. All *Leishmania* species isolated from field-collected female *P. perniciosus* in Tunisia were identified as *L. infantum* zymodeme MON-1 [11,21]. In Tunisia, the zymodeme MON-1 is responsible for the majority of human and canine cases [8,27]. The dogs were kept in the kennels after the exposure period and showed clinical signs 11 to 14 months after being exposed to wild sand fly bites. All symptomatic dogs showing specific signs of ZVL including lymphadenomegaly, hepatomegaly, splenomegaly, and progressive weight loss were classified as infected when introduced into our study. In addition, 6 uninfected Beagles from the kennel were used as controls.

The infectiousness the infected and uninfected dogs to sand flies was confirmed by xenodiagnosis [9]. A minimum of 36% to 100% of the lab-colonised *P. perniciosus* that were fed on infected dogs developed *L. infantum* infections when dissected and examined under dissecting microscope as described by Chelbi and Zhioua (2019) [28], whereas none of the sand flies fed on uninfected dogs were found to be infected with parasites.

Infected dogs were housed individually in one part of the dog kennel where they received daily regular veterinary care. Uninfected dogs were housed in a separate part of the kennels. Protective measures were taken to avoid the infection of the uninfected dogs as described by

Ben Slimane et al. (2014) [9]. Each infected dog was paired by sex (6 males and 6 females) and age (varying from 3 to 4 years old) but not weight with an uninfected one. These pairs were then used in both the laboratory and field experiments.

To assess the preference of female *P. perniciosus* for infected or uninfected dogs, we carried out a simple choice experiment (Fig 1). The wire frames of three Barraud cages (cage A, B, and C) each measuring (40 x 40 x 40 cm) were welded to each other to create a frame that was 120 x 40 x 40 cm. Three netting cages were suspended in a line within the frame. The middle netting cage (B) was connected to the two cages on the left (A) and right (C) through openings (diameter x 10 cm) cut in the netting. One infected dog and its' uninfected pair were anaesthetized by intramuscular (IM) injection of a mixture of 1.5 ml of ketamine (15 mg/Kg) (Merial, Lyon, France) and 0.02 ml/Kg of acepromazine maleate (Kela, N.V., Hoogstraten, Belgium). As ear skin is the best predictor of being infectious to vectors [29], the head of the infected and uninfected dogs were placed in the sections A and C respectively of the three connected-cages for 80 mins (Fig 1). A minimum of 200 females and 20 males uninfected laboratory-colonized *P. perniciosus* (F 29) were then released into the central part of the cage (B) and the females given the opportunity to choose either the infected or uninfected host in section A or C. Male sand flies were present to encourage female feeding [25,26] but we did not determine their preferences. Unfed sand flies were 5 to 7 days old and deprived of sugar for 24 hours prior to use in this experiment.

Access from the central part B of the apparatus to sections A and C was initially restricted by netting placed over the connecting openings. After the sand flies had been introduced into the central section, they were allowed to acclimatize for (20 mins) then the netting covering the connecting openings to both sections A and C were removed to allow the free movement of *P. perniciosus* toward either the infected or uninfected dog. After 20 minutes, the connecting openings between the central section B and side sections A and C were closed. The sand flies were then allowed to feed on the sedated dogs for 60 min in the dark at 27˚C. After this time the number of engorged and unfed female *P. perniciosus* in section A and C were counted as well as the number of females in section B [considered as not responding (NR)] were counted. The experiment was replicated six times with six different pairs of infected and uninfected

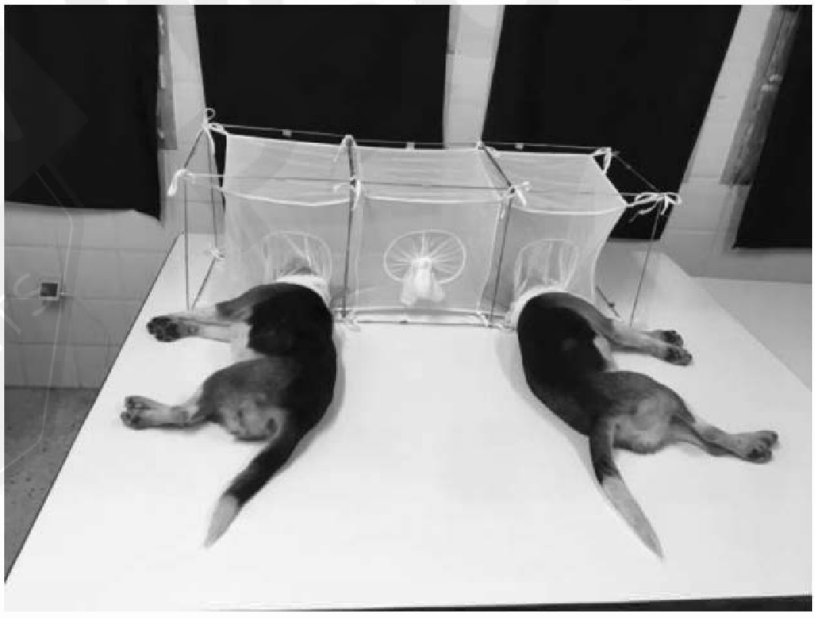

Fig 1. Host attractiveness experiment in the laboratory.

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dogs. For each pair of dogs we carried out 5 replicates. A total of 30 replicates were done for this experiment. To control for any effect side bias, the positions of the infected and uninfected dogs were swapped every replicate. The work was performed in a bio-safety level laboratory 2.

We compared the fecundity of sand flies fed on infected and uninfected dogs. Engorged females were held individually in glass vials (5 cm high and 2.5 cm diameter) containing a small wet filter paper, with access to cotton wool soaked in a sucrose solution (30%). Vials were maintained at 27˚C and 90% relative humidity in sealed polythene containers. Flies were examined daily for up to 10 days post-blood feeding; those in the infected groups that had died the previous day were dissected and examined for the presence of parasites in the gut. Only those flies in which parasites were observed (N = 75) were considered to be infected and used in the analysis. For each female sand fly, the number of eggs laid plus those retained in the ovaries after death were recorded. As this experiment is extremely time consuming, we compared the fecundity of a subset of sand flies fed on two pairs of infected and uninfected dogs. Thus with the first pair of dogs we examined 47 females engorged on the infected dog and 42 on the uninfected dog and for the 2nd pair of dogs 25 females engorged on the infected and 30 on the uninfected dog.

Assessing the attractiveness of *Phlebotomus perniciosus* to infected and uninfected dogs under field conditions

This study was performed in an endemic area for ZVL where *P. perniciosus* is the most abundant sand fly species followed by *P. perfiliewi* [30]. The study took place during 9 consecutive nights in September 2019, a period corresponding to the main peak of activity of *P. perniciosus* and *P. perfiliewi* [31], at a rural dog kennel (36˚58'N, 10˚03'E) licensed by the Department of Agriculture and belonging to the Governorate of Ariana in northern Tunisia.

An experiment was carried out to determine the preference of primarily wild *P. perniciosus* and secondly of *P. perfiliewi* for either infected (symptomatic) or uninfected (asymptomatic) dogs. Three cages (100 x 90 x 100 cm) were placed on the ground, in a triangular pattern, equidistant (20 m) from each other (Fig 2). We used one pair of dogs that we had used in the previous laboratory experiments. In one cage, we placed an infected dog and in the 2nd we placed the uninfected paired dog. The 3rd cage was left empty as a negative control. Sand flies were collected at the cages using sticky traps made with, 13 white papers (20 cm x 20 cm; total area 1 m^2) soaked in castor oil. The sticky traps were attached 1 m above the ground and evenly spaced along a cord around the top of the cage (Fig 2). The density is reported as the number of sand flies of each species per 1 m^2 of sticky traps.

The animals were tested, between 18:00–06:00 HR and received water *ad libitum* during the night. The experiment was replicated 9 times and the cages were rotated between different

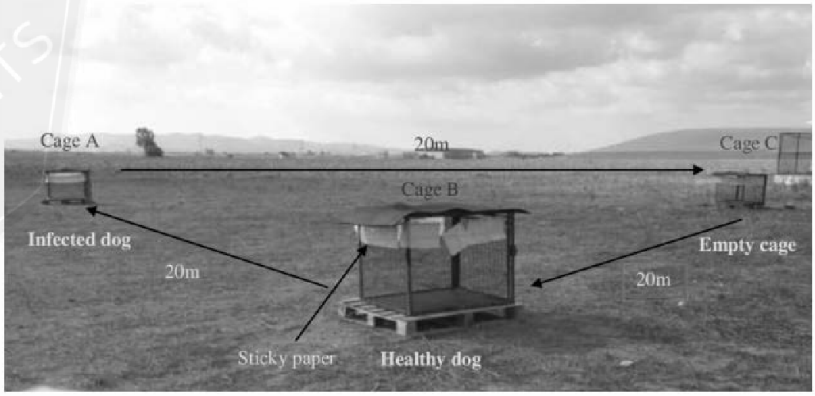

Fig 2. Host attractiveness experiment in the field.

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positions to avoid positional bias. Sand flies collected using sticky traps were counted and identified to species level by using identification keys [32,33]. The atypical form of *P. perniciosus* females, often misidentified as *P. longicuspis*, were counted as *P. perniciosus* [34,35]. Other sand fly species collected on the traps were identified to species level using the same aforementioned keys.

Statistical analysis

To investigate sand fly preference for infected or uninfected dogs under laboratory conditions, we first compared numbers of female flies choosing side A or C by using a generalized linear model (GLM). A type II analysis of variance (ANOVA) was used to test for significant effects. The feeding success was analyzed using proportion data (females attracted / females feeding), because the input number of females in each cage was different. Feeding success was analysed with a GLM. Significant effects were tested with an ANOVA. Post-hoc analyses were performed with estimated marginal means (EMMEANS). Fecundity was analysed using a liner model and significant effects were determined with an ANOVA. Numbers of sand flies and eggs are given as mean ± SE. Similarly, proportions of fed sand flies (i.e. the number of females feeding divided by the number of females attracted) are given as mean ± SE.

To analyse the attractiveness of *P. perniciosus* to infected and uninfected dogs in the natural environment, a GLM with Poisson error was used to compare the number of sand flies between each treatment. Significant interactions and effects were tested using an ANOVA. Post-hoc analyses were performed using EMMEANS. The mean is the average number of specimens per variable in the different replicates. *P*-values less than 0.05 were considered to be significant and all analyses were performed using R v. 3.6.0.

Results

Attractiveness of *Phlebotomus perniciosus* towards infected and uninfected dogs under laboratory conditions

The numbers of female *P. perniciosus* attracted towards infected dogs and uninfected dogs were 205.30 ± 16.94 and 80.57 ± 7.82 respectively and 18.80 ± 6.25 did not respond (NR) (Fig 3). The attractiveness of the dogs differed significantly according to their infection status (ANOVA: $F = 66.709$, $DF = 2$, $P<0.001$) and infected dogs attracted significantly more *P. perniciosus* females than uninfected dogs (EMMEANS: $z = 5.989$, $P<0.001$, Fig 3).

The numbers of female *P. perniciosus* that fed on the infected and uninfected dogs were (186.16 ± 16.98), and (66.83 ± 7.58), respectively. The proportion of *P. perniciosus* females that fed on infected and uninfected dogs were 0.90 ± 0.02 and 0.81 ± 0.03 respectively (Fig 4). Feeding success was significantly affected by the infection status of dogs (ANOVA: $F = 7.5714$, $DF = 1$, $P = 0.0079$). The proportion of *P. perniciosus* females that fed on infected dogs was significantly higher than the proportion that fed on uninfected dogs (EMMEANS: $z = 2.805$, $P = 0.005$; Fig 4).

The number of eggs laid by each female *P. perniciosus* fed on infected dogs and uninfected dogs were 36.46 ± 0.16, and 43.35 ± 0.15, respectively (Fig 5). Fecundity was highly affected by the infection status of dogs (ANOVA: $F = 13.35$, $DF = 1$, $P<0.001$). Females that had fed on infected dogs laid significantly fewer eggs than females that had fed on uninfected dogs (EMMEANS: $t = -3.654$, $P<0.001$).

The number of retained eggs in females that had fed on infected dogs was 2.35 ± 0.09 and in females fed on uninfected dogs was 1.27 ± 0.09 (Fig 6). Similarly, the infection status of the host affected the number of retained eggs (ANOVA: $F = 73.605$, $DF = 1$, $P<0.001$).

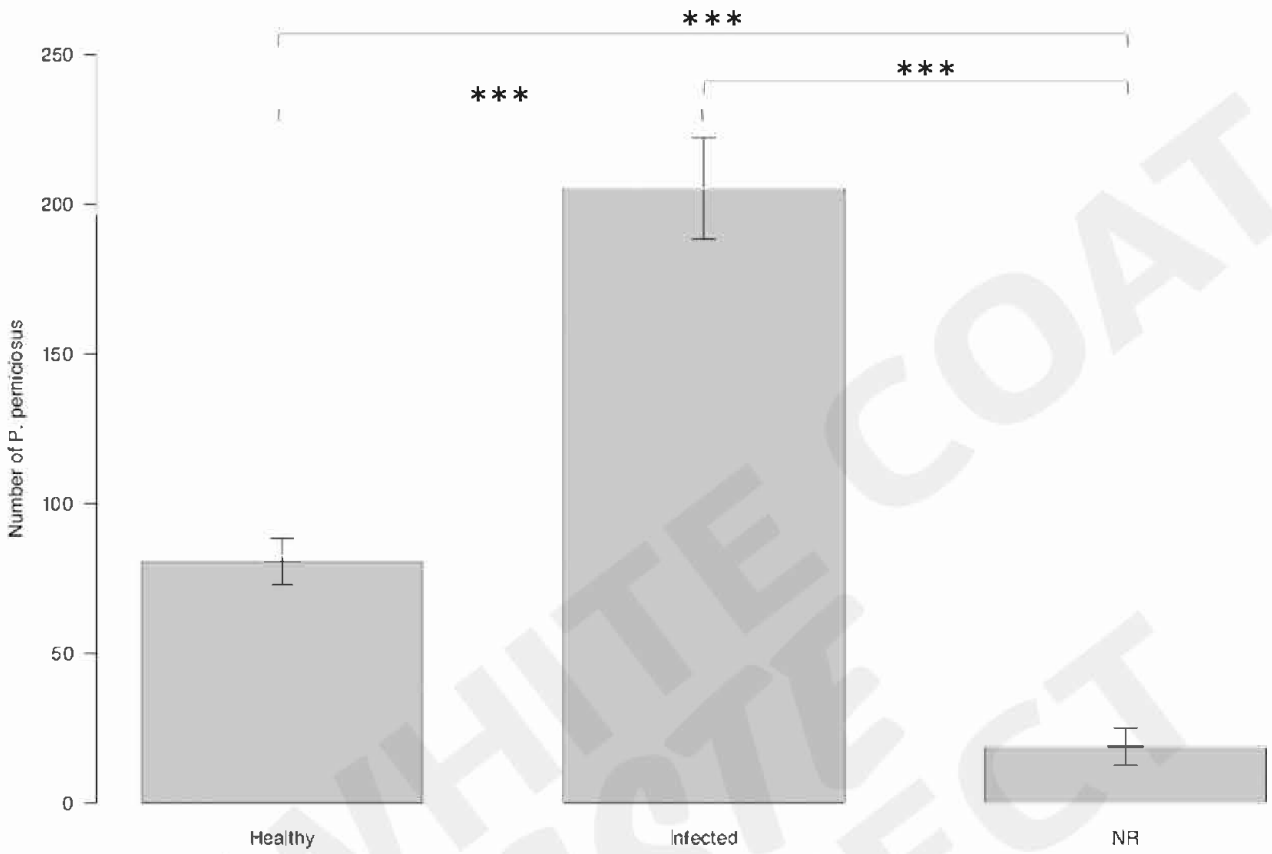

Fig 3. Mean number of females *P. perniciosus* attracted toward uninfected vs. infected dogs under laboratory conditions. Y axis represents the number of sand flies collected from the cage baited with infected and from the cage with uninfected dog. X axis represents the infection status of the dogs. Boxes are limited by the minimal and maximal value. Error bars correspond to the standard error. Significance code: $p \leq 0.001$ ***.

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Attraction of sand flies to infected and uninfected dogs under field conditions

A total of 1,939 sand flies were collected during 27 trapping-nights. *Phlebotomus perniciosus* was the most abundant sand fly species (n = 1228, 63.3%) followed by *P. perfiliewi* (n = 662, 34.1%). The remaining sand fly species were *Phlebotomus papatasi* (n = 11, 0.56%), and *Sergentomyia minuta* (n = 38, 1.96%).

The numbers of *P. perniciosus* attracted to the infected dog, uninfected dog, and blank control were 20.44 ± 4.71, 46.78 ± 7.62, and 1.89 ± 0.63, respectively (Fig 7). Overall, there was a significant (ANOVA: F = 35.8120, DF = 2, $P < 0.001$) difference in the numbers of *P. perniciosus* collected in the different cages. Infected dog attracted more *P. perniciosus* than uninfected dog (MCP: z = 3.666, $P < 0.001$). Both infected and uninfected dogs attracted more *P. perniciosus* than empty cage (MCP: uninfected: z = 3.679, $P < 0.001$; infected: z = 5.079, $P < 0.001$).

The number of females trapped was significantly higher (30.07 ± 6.43) than the number of males (16.00 ± 4.02) (MCP: z = 2.933, $P = 0.00335$) (Fig 8). The number of female *P. perniciosus* trapped in cages baited with the infected dog (59.44 ± 11.82) was significantly greater than the number of males trapped (34.11 ± 8.18) (EMMEANS: z = 2.933, $P = 0.0393$). Similarly, the number of female *P. perniciosus* trapped in the cage baited with the uninfected dog (29.11 ± 7.31) was significantly greater than the number of males trapped (11.78 ± 4.70) (EMMEANS: z = 2.933, $P = 0.0393$). The number of male *P. perniciosus* trapped in cages baited

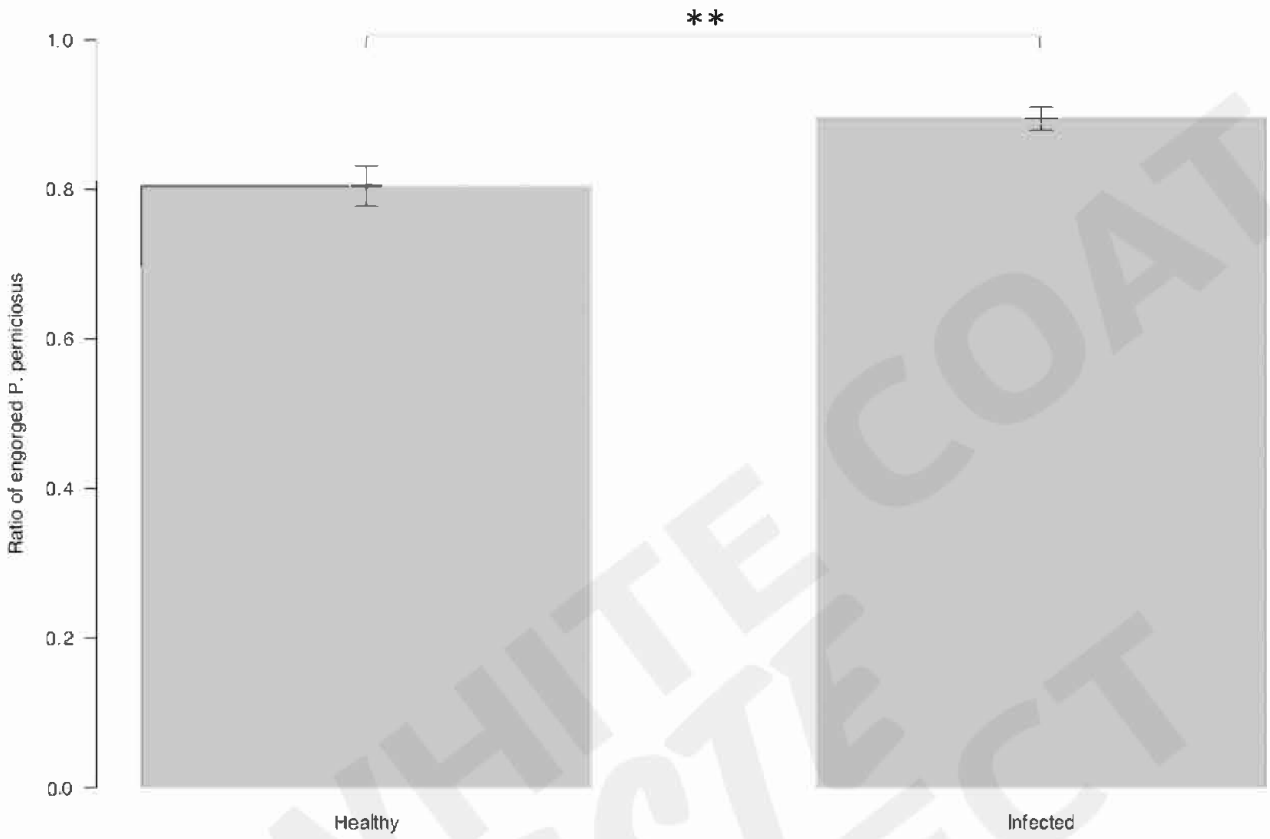

Fig 4. Proportion of females *P. perniciosus* fed on uninfected and on infected dogs under laboratory conditions. Y axis represents the proportion of engorged females collected from the cage baited with infected dog, and from the cage baited with uninfected dog. X axis represents the infection status of the dogs. Boxes are limited by the minimal and maximal value. Error bars correspond to the standard error. Significance code: p≤0.01 **.

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with the infected dog (34.11±8.18) was significantly greater than the mean number of males trapped in the cage baited with the uninfected dog (11.78 + 4.70) (EMMEANS: z = 3.666, $P = 0.0034$) (Fig 8). Similarly, the mean number of females *P. perniciosus* trapped in the cage baited with the infected dog (59.44 + 11.82) was significantly higher than the mean number of females trapped in cages baited with the uninfected dog (29.11 + 7.31) (EMMEANS: z = 3.666, $P = 0.0034$).

The numbers of *P. perfiliewi* attracted towards the infected dog, uninfected dog, and empty control cage were 27.22 ± 8.79, 9.39 ± 2.59 and 0.17 ± 0.09, respectively (Fig 9). Overall, the difference between numbers of *P. perifiliewi* collected in the cages with the infected dog, uninfected dog, and empty control cage was statistically significant (ANOVA: F = 94.715, DF = 2, $P < 0.001$). Infected dog attracted more *P. perfiliewi* than uninfected dog (EMMEANS: z = 7.931, $p < 0.001$). Both infected and uninfected dogs attracted more *P. perfiliewi* than empty control cage (EMMEANS: infected: z = 13.440, $P < 0.001$; uninfected: z = 9.005, $P < 0.001$).

Overall, the numbers of male and female *P. perfiliewi* trapped were 4.59± 1.49 and 19.53 ±6.29, respectively. The mean number of females trapped was significantly higher than the number of males (EMMEANS: z = 10.52, $P < 0.001$). The number of female *P. perfiliewi* trapped in the cage baited with infected dog (44.22 ± 15.56) was significantly greater than the number of males trapped (10.22 ± 3.79) (EMMEANS: z = 10.425, $P < 0.001$). Similarly, the mean number (mean ± SE) of female *P. perfiliewi* trapped in the cage baited with the uninfected dog (15.44 ± 4.30) was significantly greater than the number of males trapped

Fig 5. Mean number of eggs laid by *P. perniciosus* fed on uninfected vs. infected dogs. Y axis represents the numbers of eggs laid by *P. perniciosus* fed on infected and uninfected dogs X axis represents the infection status of the dogs. Significance code: $p \leq 0.001$ ***.

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(3.33 ± 0.88) (EMMEANS: z = 7.344, $P<0.001$). The number of male *P. perfiliewi* trapped in the cage baited with the infected dog was significantly greater than the mean number of males trapped in the cage baited with the uninfected dog (EMMEANS: z = 3.990, $P = 0.0013$). Similarly, the mean number (mean ± SE) of female *P. perfiliewi* trapped in the cage baited with the infected dog was significantly higher than the mean number of females trapped in the cage baited with the uninfected dog (EMMEANS: z = 9.260, $P<0.001$).

Discussion

In this study we investigated the effect of infection with *L. infantum* on the attractiveness of dogs in both the laboratory and the field in a natural focus of transmission. We tested the attractiveness of six pairs of dogs, matched for sex and age, one dog was infected (and symptomatic) and the other uninfected in both studies. Our results showed that dogs infected with *L. infantum* were highly attractive to both female and male *P. perniciosus*. The sand flies had a choice of orientating towards either of the potential hosts, but in all six laboratory replicates (pairs of dogs) female *P. perniciosus* were significantly more attracted to the infected than uninfected dogs. Similarly, we observed the same response pattern when one of the pair of dogs was exposed to the wild population of *P. perniciosus*.

The feeding success of *P. perniciosus* is significantly higher on infected dogs compared to uninfected ones. However, *P. perniciosus* that had fed on the uninfected dogs laid significantly more eggs than those that fed on dogs infected with *L. infantum*. Similar results were observed

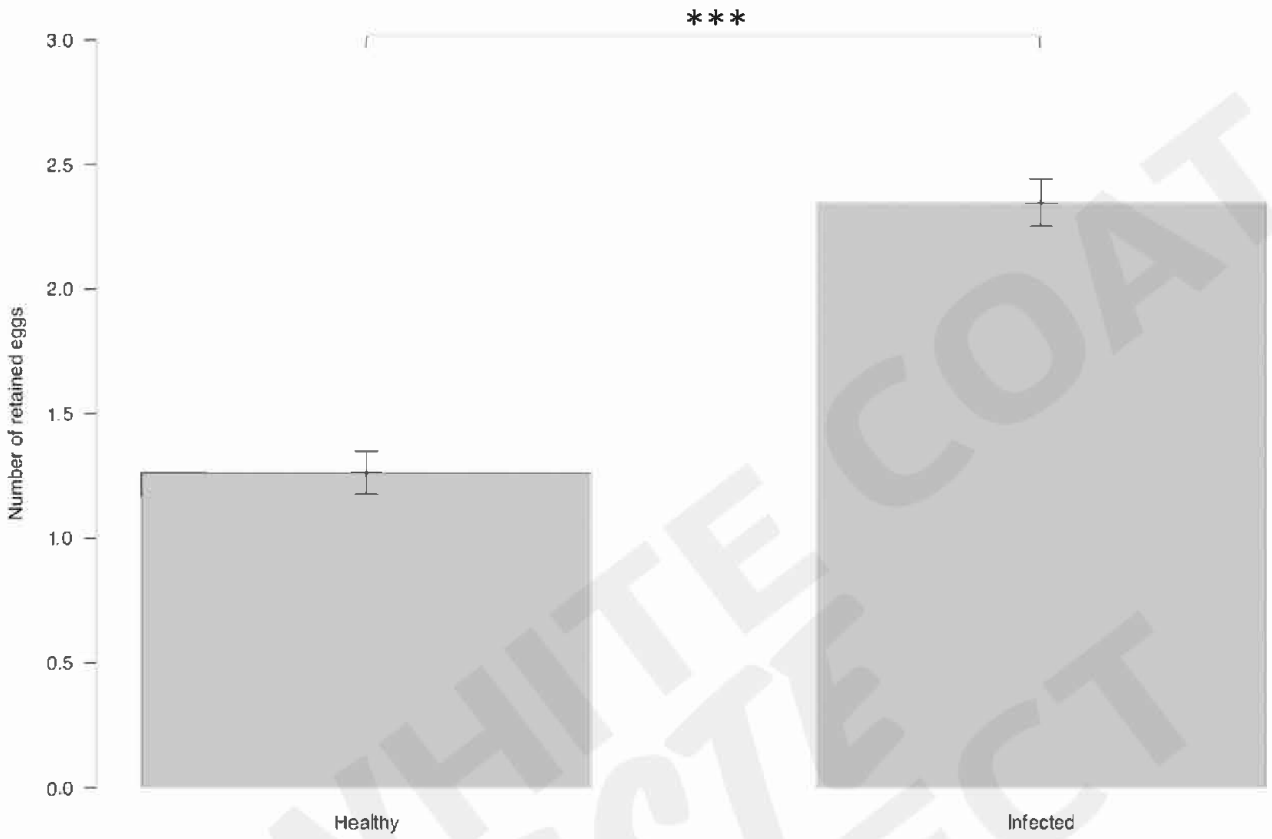

Fig 6. Mean number of retained eggs in *P. perniciosus* fed on uninfected vs. infected dogs under laboratory conditions. Y axis represents the numbers retained eggs in *P. perniciosus* fed on infected and uninfected dogs. X axis represents the infection status of the dogs. Significance code: $p \leq 0.001$ ***.

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when *P. langeroni* and *L. longipalpis* were fed artificially on *L. infantum* infected blood [36,37]. While the longevity of *L. longipalpis* was reduced after artificial feeding on *L. infantum* infected blood, no significant impact on the fecundity was reported [38]. All the aforementioned studies were obtained from artificially infected sand flies. Since we used a natural parasite-vector-host system, our results strongly suggest that *L. infantum* infection exerted an adverse impact on the fecundity of *P. perniciosus*. Resources for egg production may be diverted to limit the reduced longevity following infection with *L. infantum*. This hypothesis deserves further investigation.

Our study did not fully determine if the enhanced attractiveness of infected dogs that we observed was the result of host odour, thermal, visual or acoustic (or a combination of some or all of them) cues. However it is very likely that the sand flies are responding predominantly to odour cues. Several studies have suggested that dog odours are altered by *L. infantum* infection. Magalhaes et al. (2014) [39] identified 35 volatile organic components (VOCs) emitted by infected dogs that were either quantitatively or qualitatively different to uninfected dogs and could be recognised as bio-markers of infection. Similarly, a study using a VOC analyser (eNose) showed that dogs naturally infected with *L. infantum* in Brazil had a significantly different odour profile when compared to uninfected dogs [40].

Several other studies on non-natural infection systems that have also shown that odour of animals infected with *L. infantum* plays an important role in increasing the attractiveness of the infected animal. Nevatte et al. (2017) [24] showed that the attractiveness of golden hamsters (which do not naturally become infected with *L. infantum*) to *L. longipalpis* increased

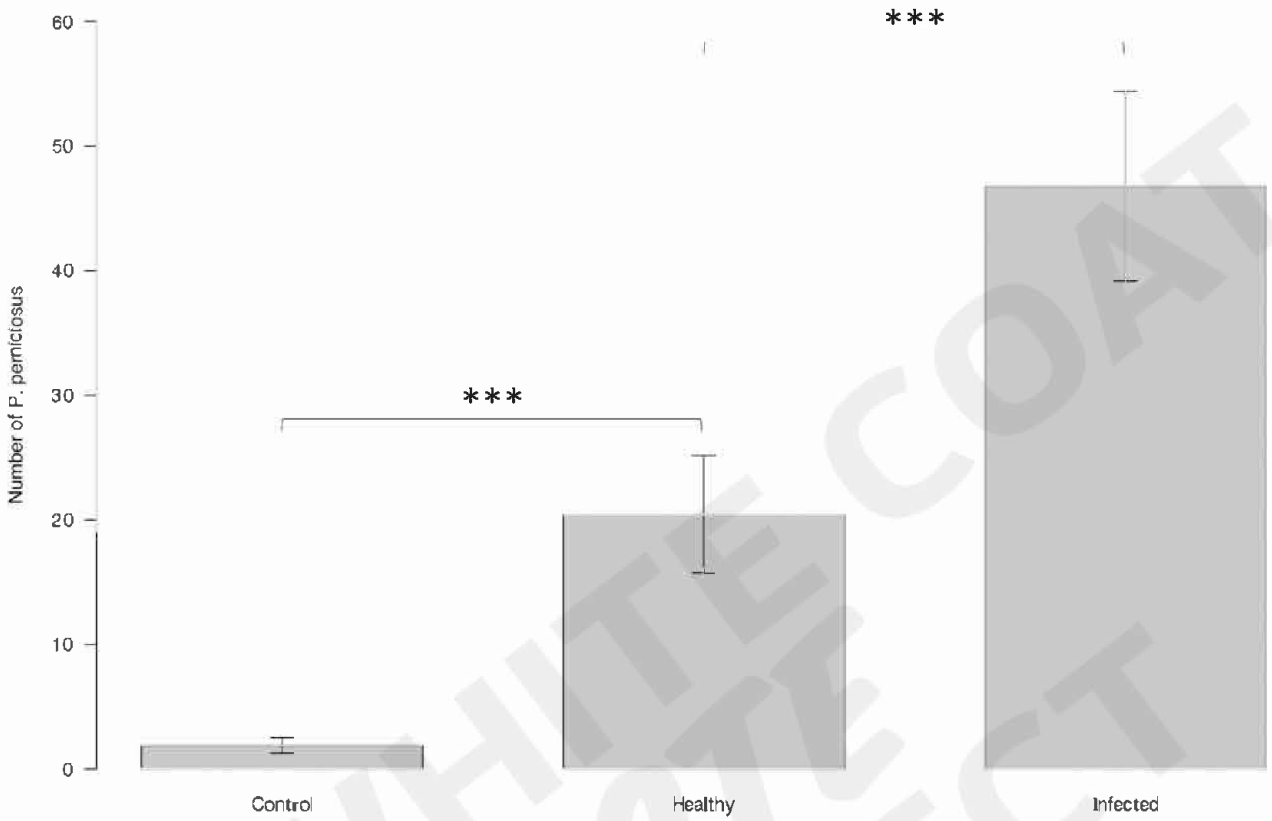

Fig 7. Mean number of *P. perniciosus* attracted toward uninfected vs. infected dogs under field conditions. Y axis represents the number of sand flies collected from the cage baited with infected dog, from the cage with uninfected dog, and from the un-baited cage. X axis represents the infection status of the dogs. Boxes are limited by the minimal and maximal value. Error bars correspond to the standard error. Significance code: p<0.001 ***.

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significantly after infection. The change in attractiveness was related to stage of infection and the change was more pronounced in some individuals than others [24].

Similar results have been obtained with other vector-parasite-host systems. Infection of the mouse with the parasite *Plasmodium chabaudii*, the etiological agent of rodent malaria, induces an increased attractiveness of *Anopheles stephensi* [41]. A clear difference in the VOCs of mice infected with *P. chabaudii* compared to those of uninfected mice has been shown [41]. Likewise, humans infected with *P. falciparum* are more attractive to *Anopheles gambiae* [42]. However, there is evidence that the effect may not be universal e.g. there was no significant difference in the attractiveness of the sand fly *Nyssomyia neivei* toward BALB/c mice infected with *Leishmania braziliensis* and uninfected mice [43].

In order to confirm our laboratory results, we tested the attractiveness of dogs infected with *L. infantum* under natural conditions in a highly endemic focus for canine leishmaniasis. Our results showed that the number of *P. perniciosus* collected from the cage housing symptomatic *L. infantum* infected dog was significantly higher than the number of flies collected from the cage baited with uninfected dog. We observed the same pattern of responses from the wild population of *P. perfiliewi* to the same pair of dogs. This evidence strongly suggests that infected dogs are more attractive to both species of sand flies. The numbers of non *L. infantum* vectors species attracted to the dogs in the field experiments was too low to determine if there was a preference for infected rather than uninfected dogs. Our manipulation hypothesis would predict that there would be no difference in attraction of non-vector species to infected and uninfected dogs.

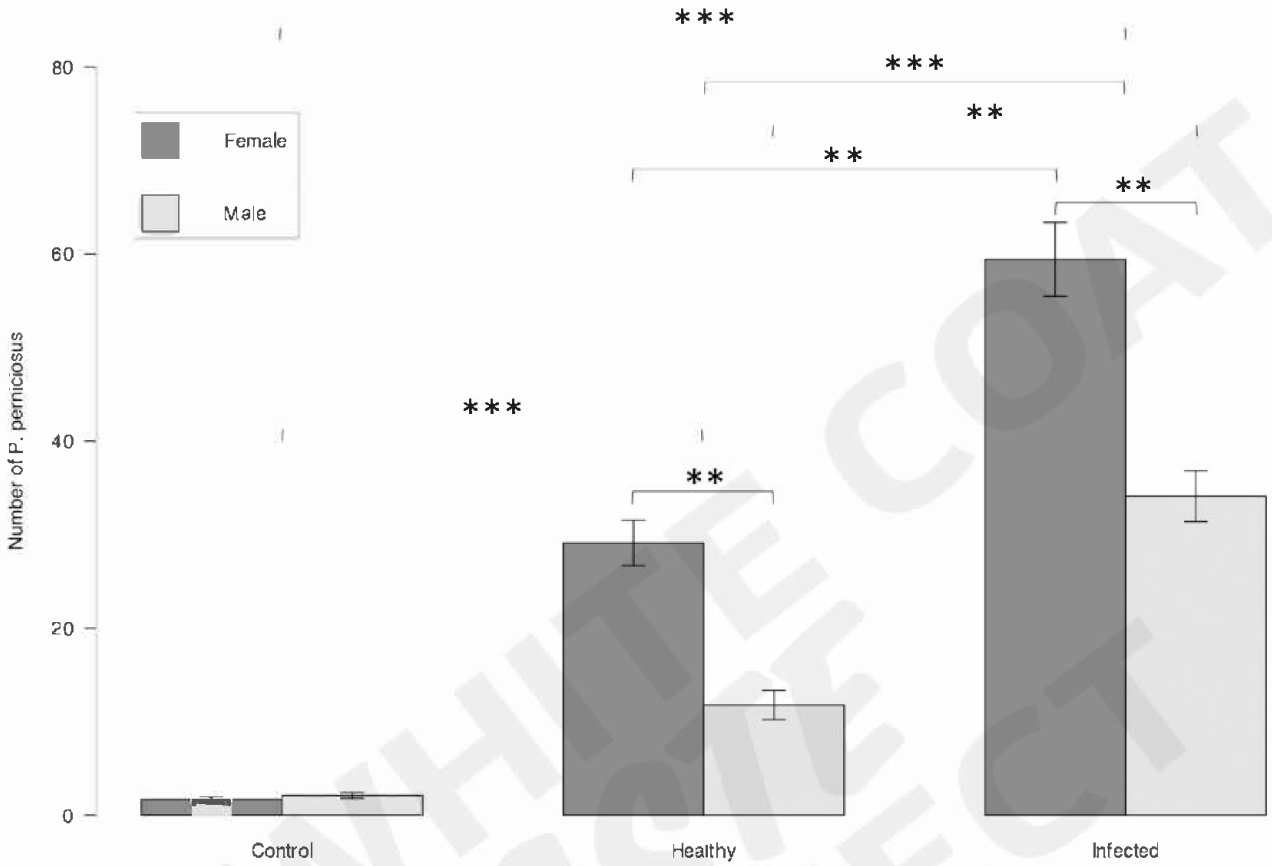

Fig 8. Mean number of males and females *P. perniciosus* attracted toward uninfected vs. infected dogs under field conditions. Y axis represents the number of sand flies collected from the cage baited with infected dog, from the cage with uninfected dog, and from the u n-baited cage. X axis represents the infection status of the dogs. Boxes are limited by the minimal and maximal value. Error bars correspond to the standard error. Significance code: $p \leq 0.01$ **; $p \leq 0.001$ ***.

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The enhanced attractiveness of *P. perniciosus* and *P. perfiliewi* to dogs infected with *L. infantum* under natural conditions is most likely due to the difference in the kairomones produced by the infected and uninfected dogs. A consequence of this manipulation could be enhanced transmission success of the parasite *L. infantum* to the vector. It would be interesting in the future to determine when the enhanced transmission success occurs in relation to the parasite life cycle in the host.

Our study showed that although both females and males *P. perniciosus* were attracted to uninfected dogs they were significantly more attracted to infected dogs in both the lab and field-based study. The response of the males seen here contrasts with the response of male *L. longipalpis* seen in other studies where there was no increased attraction of males to infected hamster [24]. This study overcomes the limitations of the previously reported work, as it was partly carried out in the field with the presence of wild sand flies in an endemic ZVL focus and thus is the closest representation of natural transmission.

Based on blood meal analysis *P. perniciosus* is seen to be opportunistic feeding on whichever hosts are available [21,44–47]. No field studies on *P. perniciosus* have been carried out to investigate their relative attractiveness to different hosts. There is some evidence that *L. longipalpis* chooses hosts on the basis of their relative size rather than species [48], it is generally also considered to be an opportunistic feeder. The general zoophilic feeding behaviour of *P. perniciosus* and *L. longipalpis* based on host availability rather than on attractiveness to specific

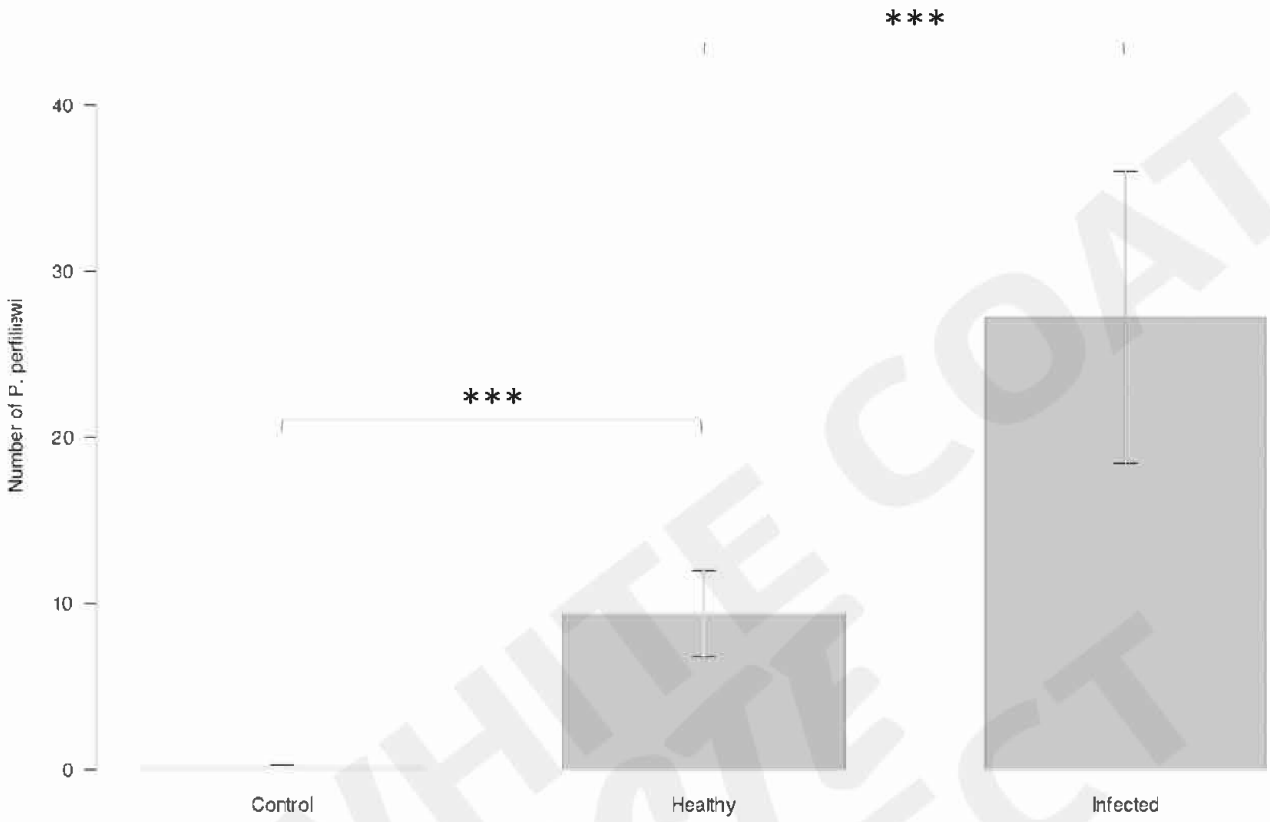

Fig 9. Mean number of *P. perfiliewi* attracted toward uninfected vs. infected dogs under field conditions. Y axis represents the number of sand flies collected from the cage baited with infected dog, from the cage with uninfected dog, and from the unbaited cage. X axis represents the infection status of the dogs. Boxes are limited by the minimal and maximal value. Error bars correspond to the standard error. Significance code: $p \leq 0.001$ ***.

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hosts should lead to a dilution of the parasite as it is spread to non-competent hosts, and this would subsequently exert a zooprophylactic effect on the transmission of *L. infantum* [49]. Our work illustrates a potential zoopotentiation effect exerted by infected reservoir hosts that are highly attractive to sand fly vectors of *L. infantum*. Furthermore, it strongly suggests that infected dogs are the main reservoir host, as the different odour components and/or different concentrations that are released are significantly attractive to *P. perniciosus* compared to other environmental odours. This odour manipulation ensures successful transmission of the parasite to the vector. Thus, chemical ecology governs the *L. infantum*-dog-*P. perniciosus* relationship, and consequently, it has a direct impact on the transmission dynamic of ZVL.

While it has been shown that *Leishmania* infection may influence the quantity of blood ingested and the frequency of sand fly blood meals, thereby increasing the transmission rate of the parasite [38,50], it is not known whether parasites can affect host attractiveness to sand flies. Some parasites are known to manipulate their host animals by changing its physiology or behaviour to improve their chance of transmission [22]. Our results strongly suggest that the parasite changes the physiology of the dog so that it becomes more attractive to female *P. perniciosus*, thus helping to ensuring its successful transmission.

Several studies have reported that symptomatic dogs, infected with *L. infantum* are highly infectious to their sand fly vectors compared to oligosymptomatic and asymptomatic dogs [51–58]. One explanation for this difference may be related to the relative attractiveness of symptomatic infected and uninfected dogs to their sand fly vectors. It will be interesting in due

course to determine if infected asymptomatic and oligosympotomatic dogs are as attractive to the sand fly vectors as symptomatic dogs.

Greater attractiveness of infected dogs compared to uninfected dogs would have major epidemiological significance. In ZVL endemic areas of Tunisia, up to 50% of dogs are infected with *L. infantum* [4], therefore understanding the mechanisms which underpin the difference in attractiveness could help in the development of new approaches to reduce the infection rate of the vector, and subsequently to reduce the transmission of the parasite. It is also important to understand how the parasite may manipulate transmission and thus the effect on transmission models.

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Supervision: Elyes Zhioua.

Visualization: Ifhem Chelbi, Elyes Zhioua.

Writing – original draft: Elyes Zhioua.

Writing – review & editing: Abhay Satoskar, James G. C. Hamilton, Elyes Zhioua.

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From: Billet, Courtney (NIH/NIAID) [E]
Sent: Mon, 25 Oct 2021 21:49:51 +0000
To: Milbank, Dana
Subject: RE: Fauci's puppies

HI Dana – here is our statement, attributable to NIAID spox (not me personally please). Thank you for your patience today. It was a lot to tease out.

All animals used in NIH-funded research are protected by laws, regulations, and policies to ensure the smallest possible number of subjects and the greatest commitment to their welfare. Institutions receiving funds, including those in other countries, must conduct research that involves animals in accordance with the Public Health Service Policy on the Humane Care and Use of Laboratory Animals. The proposed use of animals in research is evaluated during peer review for both contract and grant proposals, and animals used in research are to be provided with appropriate anesthesia and veterinary care. The principles for what is -- and is not -- allowed are governed both by regulations administered by the NIH Office of Laboratory Animal Welfare and the grantee institution's animal care and use committee (IACUC), and these principles apply to the situations described below.

With respect to the allegations by the White Coat Waste Project:

- The images of beagles were drawn from a manuscript published in July 2021 in the journal PLOS Neglected Tropical Diseases. The manuscript mistakenly cited support from NIAID, when in fact NIAID did not support this specific research shown in the images of the beagles being circulated. NIAID has funded a separate project involving the study of a vaccine to prevent leishmaniasis, a serious parasitic disease transmitted by sand flies that poses a threat in particular to US troops and other personnel, as well as US military dogs, in areas where the disease is endemic. In the NIAID-supported study, twelve dogs were immunized with the experimental vaccine at the Pasteur Institute of Tunis, and then let out in an enclosed open space during the day, during high sandfly season in an area of Tunisia considered to be hyper-endemic for canine leishmaniasis. The goal of the research was to determine if the experimental vaccine prevented the dogs from becoming infected in a natural setting. Developing a vaccine to prevent leishmaniasis is an important research goal. In this case, the researchers are supported through multiple different funding sources. The NIAID grant ended in July 2021. White Coat Waste also noted a 2016 leishmaniasis project conducted in NIAID laboratories; dogs were the necessary animal model for the research, and the researchers ensured that the dogs experienced no discomfort.

- The research described by the White Coat Waste Project at the University of Georgia focuses on lymphatic filariasis (LF), a mosquito-transmitted parasitic disease that affects millions of people in many countries around the world. According to the World Health Organization, LF is the second leading cause of human disability in endemic countries. People disfigured by LF are frequently unable to work because of their disability. No licensed prophylactic vaccine is available to prevent LF; the development of an effective vaccine against the parasites that cause LF could prevent significant disease and suffering globally. The vaccine candidate under investigation in the NIAID-supported project at the University of Georgia targets a protein that is common among multiple species of filarial parasites. It potentially could be used to prevent LF in humans as well as filarial infections, including heartworm, in dogs. Dogs are a natural host for the *B. pahangi* parasite and exhibit clinical and pathologic changes like those seen in human filarial infection. As such, they represent an appropriate model for testing this investigational vaccine prior to evaluation in humans.

- There also are concerns raised about work involving beagles under an NIAID contract for preclinical pharmacology and toxicology services. Under this contract, the contractor conducts testing as required in animal models by the FDA, in compliance with Good Laboratory Practice (GLP) guidelines and in a facility accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) or its equivalent. Vocal cordectomies, conducted humanely under anesthesia, may be used in research facilities where numerous dogs are present. This is to reduce noise, which is not only stressful to the animals but can also reach decibel levels that exceed OSHA allowable limits for people and can lead to hearing loss.

From: Billet, Courtney (NIH/NIAID) [E]
Sent: Monday, October 25, 2021 4:36 PM
To: Milbank, Dana <Dana.Milbank@washpost.com>
Subject: RE: Fauci's puppies

To your question about number of grants for NIAID, see bar chart at this link. Just under 10,000 active projects.

https://reporter.nih.gov/

From: Milbank, Dana <Dana.Milbank@washpost.com>
Sent: Monday, October 25, 2021 2:26 PM
To: Billet, Courtney (NIH/NIAID) [E] (b)(6)
Subject: Fw: Fauci's puppies

From: Justin Goodman <justin@whitecoatwaste.org>
Sent: Monday, October 25, 2021 11:58 AM
To: Milbank, Dana <Dana.Milbank@washpost.com>
Subject: Re: Fauci's puppies

CAUTION: EXTERNAL SENDER

- In August 2021, WCW requested documents [dropbox.com] from NIH related to toxicity testing on beagles commissioned by Anthony Fauci's NIAID.
- The request returned 1,438 pages of documents [dropbox.com] describing wasteful and unnecessary drug toxicity tests on beagle puppies.
- The records show that in the tests, 44 beagle puppies who were just 6-8 months old were repeatedly injected with or force-fed (pages 433 and 440 [dropbox.com]) an experimental drug for weeks, and then killed and dissected (see page 438 [dropbox.com])

- **NIAID paid for the dogs' vocal cords to be cut out so they couldn't bark (see "cordectomy" line item on Page 367 [dropbox.com])**
- At the end of the testing, the dogs were all killed (page 433 [dropbox.com])
- Invoice for 46 beagles (see "Marshall Canine Beagles" line item on Page 367 [dropbox.com])
- The experiments (which also included testing on rats) cost taxpayers $1.68 million (see page 402 [dropbox.com])
- The documents state that the dog testing, "The purpose of this study was to provide data of suitable quality and integrity to support application to the U.S . Food and Drug Administration (FDA) and other regulatory agencies." (page 461 [dropbox.com])
- However, the Food and Drug Administration has stated clearly as recently as this summer [wjla.com]: **"The FDA does not mandate that human drugs be studied in dogs."**

From: "Milbank, Dana" <Dana.Milbank@washpost.com>
Date: Monday, October 25, 2021 at 11:46 AM
To: Media Inquiries <media@whitecoatwaste.org>
Subject: Fauci's puppies

Could you give a call? Many thanks. Dana Milbank

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