## IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF KANSAS



## CLASS ACTION COMPLAINT FOR

 LANHAM ACT VIOLATIONS AND CIVIL CONSPIRACYPlaintiff KetoNatural Pet Foods, Inc. ("KetoNatural"), individually and on behalf of all others similarly situated (the "Class," as defined below), brings this Complaint by and through its undersigned attorneys. Plaintiff brings these allegations on the personal knowledge of its Chief Executive Officer, Daniel Schulof, as to Plaintiff itself and on information and belief as to all other matters, based upon, inter alia, the investigation and analysis conducted by Mr. Schulof and Plaintiff's attorneys, and respectfully alleges as follows.

## PRELIMINARY STATEMENT

1. This lawsuit concerns an egregious, wide-ranging, and damaging campaign of coordinated, for-profit, faux-scientific misinformation by a large corporation. And it's about dog food.
2. Defendant Hill's Pet Nutrition, Inc. ("Hill's") is the one of the largest and oldest pet food companies in the United States, with annual revenues in excess of $\$ 2$ billion and a corporate history stretching back more than 75 years. Because of its giant size and long history, Hill's is one of only three self-styled "traditional" pet food companies in the United States (NestlePurina PetCare and Mars Petcare, both of which sell even more dog food than Hill's, being the others). ${ }^{1}$
3. Hill's is unique among these three so-called "traditional" pet food companies for three different reasons. First, it is the smallest of the three-its annual revenues dwarf those of most other pet food brands, but they are only about $20 \%$ of Purina's revenues. Second, as by far the largest maker of "prescription-only" diets in the country and as the self-proclaimed "\#1 VetRecommended Brand," Hill's is tied much more closely to the veterinary community than either Mars or Purina. For Mars and Purina, marketing to vets and distributing through vet clinics are both relatively inconsequential parts of their sprawling companies; for Hill's, they are a major component of the business.
4. The third thing that makes Hill's unique among the three "traditional" pet food companies is its uniquely poor financial performance in the years leading up to 2018, when the

1 A fourth manufacturer of petfood in the big legacy companies had long been J.M. Smuckers. Smuckers is differently situated from Hill's, Mars and Purina because a significant portion of its pet products sales come from treats, rather than food meant to constitute a complete diet. On February 9, 2023, Smuckers divested many of its pet food brands to Post Holdings, Inc.
misconduct at the heart of this suit began. During this period, the market for pet foods made by "non-traditional," often independent, brands was growing explosively. For example, from 2011 to 2017, sales of "grain-free" dog foods, a leading category among independent makers, rose from $15 \%$ to $44 \%$ of all dog food sales in American pet specialty stores. Purina was so large and diversified that it weathered this storm successfully, growing steadily and preserving its market share from 2014 to 2017. But Hill's did not. Over the same four-year period, Hill's annual revenues were pancake-flat and its market share plunged by more than $20 \%$. Long the third-largest seller of complete-diet dog food in the country, Hill's fell to fourth in 2018, after being overtaken by Blue Buffalo, the largest of the new wave of "non-traditional" pet food brands.
5. Thus, beginning no later than 2018, Hill's and a cluster of associated entities and individuals (collectively with Hill's, the "Defendants") embarked on a drastic and unlawful course to reverse this slide. They carried out a scheme to falsely convince American dog owners that a massive, unrelated, and hugely diverse group of dog food products-essentially any product made by any of the hundreds of independent firms that were collectively eroding Hill's market shareall increase the risk and severity of a deadly canine heart disease called dilated cardiomyopathy ("DCM").
6. To carry out the scheme, Hill's, along with a group of closely-bound academic veterinarians (the "Veterinarian Defendants") and front organizations operating on Hill's behalf, acted in a coordinated conspiracy. The scheme (which is ongoing to this day) has several related strands, all of which serve to promote the false idea that "non-traditional" dog foods raise the risk of canine DCM.
7. First and most explosively, the Veterinarian Defendants fraudulently induced the United States Food and Drug Administration to launch a high-profile investigation into DCM.

They did this by deliberately cherry-picking cases of DCM involving "non-traditional" dog food brands (while intentionally excluding cases involving "traditional" brands) and submitting them to the FDA all at once. This cherry-picking scheme created the illusion that DCM was alarmingly common among dogs fed "non-traditional" diets, forcing the FDA to take drastic action by alerting the public and launching a formal investigation.
8. As is to be expected, the FDA's DCM investigation garnered a storm of mainstream media coverage over its first twelve months, causing an immediate and steep decline in the demand for "non-traditional" dog foods. But the investigation never actually turned up any link between the disease and the targeted products. More than five years on, the FDA's investigation has still found no evidence that "non-traditional" dog foods play any role whatsoever in causing or exacerbating canine DCM.
9. The second strand of Defendants' scheme: Hill's co-conspirators, the Veterinarian Defendants authored study after study about DCM and then mischaracterized the findings. In reality, none of these papers actually found any meaningful correlation between "non-traditional" dog foods and either DCM incidence rates or shorter lifespans. However, the Veterinarian Defendants (as well as Hill's itself) repeatedly and consistently pointed to the studies as evidence for the bogus claim that DCM is "associated" with "non-traditional" dog foods, when in reality they do not support this claim.
10. To attach the specter of DCM to all of its smaller competitors, Defendants coined a catchy acronym and repeatedly used it to describe their products: "BEG" diets (for "Boutique, Exotic and Grain-Free"). Hundreds of highly-diverse products meet the "BEG" definition, and there is no single quality that they all share (other than competing with Hill's). As such, the term was never used by the FDA and failed to catch on in the peer reviewed literature. But the

Defendants kept using it in public-facing statements anyway, driving it into the public consciousness through mere repetition.
11. Because a major component of Hill's sales strategy is promotion and sale through veterinarians and veterinary clinics, the bogus claim that "BEG" diets "are associated with DCM" was easily incorporated into sales and marketing materials provided to vets by Hill's, who then passed the message along to their trusting clients. However, as a large and sophisticated corporation, Hill's realized that spreading misinformation about its competitors' products would expose it to liability, so it sought to obscure its role by putting the false statements in the mouths of its co-conspirators or under their watch, and then amplifying or referring to them.
12. Defendants also communicated the message directly to the public. Some of the writings authored by the Veterinarian Defendants about the purported danger of "BEG" diets were consumer-friendly articles published on publicly accessible websites. These writings were not peer-reviewed and contain a litany of false statements about "BEG" diets. Nevertheless, they were consumed voraciously by the general public-the author of the first of the articles even bragged that it had been read more than 180,000 times in just a few weeks.
13. Hill's also used its own website to promote these consumer-facing articles (and the false statements they contained), publishing web pages about DCM that included links to the articles and encouraging vets to promote the articles on their own social media channels, effectively treating the articles as valid scientific evidence, when in reality they are not. This spread the misinformation about "BEG" foods and DCM further among consumers.
14. The Defendants also created and fostered social media environments including at least one Facebook group that was an echo chamber, suppressing any contradiction of the propaganda campaign. Through these varied means, Defendants created and maintained the false
impression that "BEG" diets have been found to raise the risk of a deadly disease, when in reality they have not. This is an impression that still remains in the mind of the consuming public, impacting its purchasing decisions to this day.
15. The campaign has caused staggering losses to spread across a vast swath of the U.S. pet food industry. This is because "BEG" diets, as defined by the Defendants, is a group composed of literally every dog food made in the country except for those made by Hill's and three other companies. Defendants' false claims about the dangers of pet food from smaller manufacturers has scared billions of dollars of business away from smaller manufacturers and into Hill's coffers. In the four years immediately preceding the launch of the FDA's investigation, Hill's lost $20 \%$ of its market share. In the five years since the investigation began it has been arguably the fastest growing pet food company in the country.
16. Plaintiff KetoNatural is one of the hundreds of smaller pet food brands whose products, practices, and reputation were tarred irrevocably by this widespread campaign of systematic disparagement. Through a lengthy, self-financed Freedom of Information Act lawsuit, KetoNatural's founder and CEO (Daniel Schulof) uncovered the key evidence of Defendants' scheme, in the form of non-public e-mails and other electronic communications sent by the coconspirators to the FDA.
17. Through this suit, KetoNatural (and the class of similarly situated pet food brands that KetoNatural represents) aims to correct the false public record about DCM, rehabilitate the reputation of so-called "non-traditional" diets, expose Defendants' unlawful scheme, and obtain some measure of justice for this shocking misconduct.

## PARTIES

18. Plaintiff KetoNatural is a for-profit Delaware corporation with its principal place of business in Salt Lake City, Utah. Plaintiff's primary line of business is the manufacture and sale of pet food, treat, and supplement products.
19. Defendant Hill's is a for-profit Delaware corporation with its principal place of business in Topeka, Kansas. Hill's is a wholly owned subsidiary of Colgate-Palmolive, Inc., a publicly-traded Delaware for-profit corporation with its principal place of business in Wilmington, Delaware. Like KetoNatural, Hill's also manufactures and sells pet food, treat, and supplement products.
20. Defendant Morris Animal Foundation ("MAF") is a Colorado non-profit corporation with its principal place of business in Denver, Colorado. MAF's stated mission is to "bridge science and resources to advance the health of animals." It was created by the founder of Hill's, Mark Morris.
21. Defendant Mark Morris Institute, Inc. ("MMI") is a Kansas non-profit foundation with its principal place of business in Topeka, Kansas. According to its 2022 Annual Report, MMI "provides non-commercial, evidence-based, companion animal nutrition education for veterinarians and students of veterinary medicine around the world through publications and nutrition education courses at veterinary schools and colleges." MMI is funded entirely through financial support by Hill's.
22. Defendant Lisa M. Freeman is a citizen of the State of Massachusetts and currently resides in or around Medford and Somerville, Massachusetts.
23. Defendant E. John Rush is a citizen of the State of Massachusetts and currently resides in or around Medford and Somerville, Massachusetts.
24. Defendant Darcy B. Adin is a citizen of the State of Florida and currently resides in or around Gainesville, Florida.
25. Defendant Joshua A. Stern is citizen of the State of California and currently resides in or around Davis, California.
26. Defendant Ryan C. Fries is a citizen of the State of Illinois and currently resides in or around Champaign, Illinois.

## JURISDICTION AND VENUE

27. The Court has subject matter jurisdiction over this action pursuant to the Class Action Fairness Act of 2005, 28 U.S.C. §§ 1332 (a) and (d), because the amount in controversy exceeds $\$ 5,000,000$, exclusive of interest and costs, and the majority of the members of the proposed class are citizens of states different from those of the Defendants. The Court also has federal question jurisdiction based on the Lanham Act, 15 U.S.C. § 1051, et seq. The Court has supplemental jurisdiction over the state and common law claims based on 28 U.S.C. § 1367(a).
28. Venue is proper in this District pursuant to 28 U.S.C. $\S 1391$ because Defendant Hill's and MMI reside in the District and because a substantial part of the events giving rise to the claims occurred, in part, within this District.
29. This Court has personal jurisdiction over Defendant Hill's because it has conducted substantial business in this District, including by intentionally and purposefully placing its products into the stream of commerce from within the District.
30. This Court has personal jurisdiction over Defendant MMI because it is incorporated in the District, has conducted substantial business in this District, including by providing "educational" services to institutional and individual clients within the District and receiving virtually all of its funding from Defendant Hill's which is headquartered in the District.
31. This Court also has personal jurisdiction over all the Defendants because all were co-conspirators with Hill's and the existence of the conspiracy and acts of co-conspirator Hill's subject them to this forum's jurisdiction.

## STATEMENT OF FACTS

## Background Information About the Defendants

## Defendant Hill's and Its Enterprise of Affiliates and Front Organizations

32. Hill's has a long history of profiting by marketing its products through veterinarians, who in turn promote them to their clients. Hill's also has vast influence over some of the highest-profile veterinarians in the country, through whom it skews the medical literature and ensures that messages beneficial to Hill's will be promoted. It has used this network to disseminate a false message that has unfairly harmed Plaintiff and all others similarly situated.
33. According to its website, the corporate entity that would become Hill's was founded in 1948 by a veterinarian named Mark Morris, Sr. After a few decades of steady growth, in 1976, the company was acquired by the multinational consumer products firm Colgate-Palmolive Co. ("Colgate"), which still owns it today.
34. Hill's developed its marketing strategy based on other successful Colgate strategies. Around the time that it acquired Hill's, Colgate had recently achieved tremendous success with a first-of-its-kind marketing campaign whereby the company's dental products were sold to consumers by marketing the products to their dentists. Colgate soon decided to adopt a similar strategy with its new pet food acquisition, telling the public that Hill's dog food had the approval of veterinarians. In an article published in the Wall Street Journal in 1997, John Steel, Colgate's former Senior Vice President of Global Marketing and Sales described the strategy as follows: "It's just like taking drugs. You go to the doctor and he prescribes something for you and
you don't much question what the doctor says. It's the same with animals." Tara Parker-Pope, Colgate Gives Doctors Treats For Plugging Its Food Brands, W.S.J., Nov. 3, 1997) (quoting John Steel).
35. The results of the new strategy were outstanding. By focusing on marketing to veterinarians instead of directly to consumers, Hill's grew from only $\$ 40$ million in annual sales in 1982 to nearly $\$ 900$ million by 1997, an increase of over $2,000 \%$.
36. In the years that followed, Hill's built its brand around marketing to veterinary professionals. As John Steel said of Hill's marketing budget in the same Wall Street Journal article quoted above, "the bulk of our expenditure goes to the veterinary community." The company developed a robust line of prescription-only pet food products that, like medications, could only be purchased with a veterinarian's prescription. (Despite the prescription designation, Hill's prescription diets are not actually FDA-approved, and Hill's has, in fact, been sued over misrepresenting that they are. ${ }^{2}$ ) Today, both Hill's' prescription and non-prescription products are distributed through thousands of veterinary clinics around the country and vets are able to charge a markup on every bag of Hill's sold through their clinics. According to the company's website, "Hill's is honored to be the \#1 Veterinarian Recommended brand" of pet food in the United States.
37. Hill's distribution model is supported by a sophisticated sales and marketing apparatus, one featuring free "continuing veterinary education" courses for vets and vet technicians, product literature, incentive programs, and a small army of Hill's veterinarians functioning as sales representatives. As explained below, this network provides Hill's with
${ }^{2}$ See Moore v. Mars Petcare US, Inc., No. 16-CV-07001-MMC (N.D. Cal.); Vanzant v. Hill's Pet Nutrition Inc., No. 17 C 2535 (N.D. Ill.).
extraordinary access to America's veterinarians. Through the channels of communication, it has built over a period of decades, the company has the means of speaking in a direct and coordinated fashion to veterinary professionals, whether about the supposed benefits of its products or, as the case may be, the supposed dangers of its competitors. The present scale of its influence within the veterinary research community is staggering.
38. One way that Hill's exerts its influence over the veterinary community is through universities, by selectively funding research and other strategic priorities at many of America's accredited veterinary schools. As of 1997, Hill's was funding a nutrition professorship in nearly half of the veterinary schools in America. A leading veterinary nutrition textbook from the time, Small Animal Clinical Nutrition, was edited by two Hill's employees, dedicated to Mark Morris, Sr. (the founder of Hill's), and featured art on the rear cover which read "Compliments of Hill's."
39. Moreover, according to Hill's own website, the company directly (through the 200 veterinarians that it employs around the world) funds "more than 50 research papers and textbook chapters each year." See https://www.hillspet.com/about-us/nutritional-philosophy/research-andinnovation (last visited Feb. 1, 2024).
40. Another major way in which Hill's influences the veterinary community is through a number of affiliated "cut-outs" -- entities that appear to be independent non-profit organizations operating with their own benevolent agendas when in reality they are largely or entirely fronts for Hill's and its financial interests.
41. One of these cut-outs is Defendant MAF. The organization was founded by Mark Morris, Sr. (also the founder of Hill's) in 1948 and, since its inception, a rotating cast of Hill's officers, directors, and other agents have served on its board of trustees. Presently on the board are: David Morris, the grandson of Mark Morris; and Deborah Davenport, who was the Director
of Professional Education at Hill's Pet Nutrition for 21 years, from 1990 to 2011, and who is currently also the executive director of the Hill's-funded Mark Morris Instituted (Defendant MMI, described infra).
42. The Morris Animal Foundation funds its operations from earnings on its endowment as well as additional charitable donations. In its most recent publicly available tax filing MAF did not disclose the identities of any of its largest recent donors. However, its website indicates that it still also uses earnings from the large endowment that allowed for its creation. That endowment was funded by profits from sales of Hill's products.
43. The primary function of MAF is to fund veterinary research projects and institutions. In fact, the organization claims to be "the largest non-governmental sponsor of companion animal health studies in the world." See https://www.markmorrisinstitute.org/\#mission (last visited Feb. 1, 2024). As of April 2023, it had provided more than $\$ 149$ million in funding to approximately 3,000 different veterinary studies. The 2022 filing indicates that it provided large grants to at least sixteen different veterinary schools and universities in 2021. See https://www.morrisanimalfoundation.org/sites/default/
files/files/2023-02/06.30.22\%20MAF\%20Form\%20990\%20-\%20Public\%20Copy.pdf at the universities with which they are associated.
44. Another important Hill's cut-out is Defendant MMI. Like MAF, MMI was also founded by Mark Morris, Sr. MMI's annual report contains the disclosure, "MMI is funded through educational support from Hill's Pet Nutrition...., ${ }^{3}$ At present, three members of MMI's

3 https://www.markmorrisinstitute.org/assets/mmi_2022_annual_report.pdf (last visited Feb. 1, 2024).
eight-member board of trustees are full-time Hill's employees and four work for veterinary schools and other organizations that have received major funding from Hill's or MAF. (The eighth director is a lawyer.) Whereas MAF serves Hill's financial interests by funding scientific studies and institutions that produce friendly research, MMI does so by shaping what veterinary professionals are taught about nutrition, both during and after veterinary school. It does this by producing textbooks, continuing education courses, and, amazingly, ready-made veterinary nutrition courses, complete with credentialed faculty, course materials, lectures, and more. And it offers these turnkey nutrition programs to fully-accredited universities completely free of charge. From the MMI website:

The Mark Morris Institute University Teaching Program in companion animal clinical nutrition offers current, non-commercial nutrition learning activities at no cost to the hosting school. We offer a series of live in-person or online lectures, recorded lectures, case-based discussions, practical exercises (laboratories), and asynchronous learning modules, which can be combined to create a customized clinical nutrition course elective or required - for your institution.
https://www.markmorrisinstitute.org/teaching.html (last visited Feb. 1, 2024). According to its Annual Report, "MMI currently serves: 19 of the 33 AVMA-accredited or provisionally accredited veterinary schools in the US, 4 of 5 in Canada, both accredited Caribbean schools, and the only AVMA-accredited school in Mexico." https://www.markmorrisinstitute.org/assets/mmi_2022_annual_report.pdf (last visited Feb. 1, 2024)
45. MMI is a non-profit private foundation and because it offers its courses for free it operates almost exclusively on charitable contributions. According to its tax filings, since no later than 2017 all of these contributions have come from a single entity: Hill's.
46. One final way that Hill's influences the veterinary community is by providing significant funding to influential professional organizations, such as the American Veterinary

Medical Association ("AVMA"). Founded in 1863 and with more than 100,000 members, AVMA champions itself as the "collective voice of the veterinary profession" and "the nation's leading advocate for the veterinary profession." Among other professional activities and initiatives, AVMA hosts an annual convention and publishes the Journal of the American Veterinary Medical Association ("JAVMA"), the most widely-read veterinary science journal in the world.
47. Many of the key articles written by Defendants suggesting that "BEG"/nontraditional foods cause DCM were published in JAVMA.
48. AVMA has redacted the identities of its financial contributors from its tax returns in recent years as well. But Hill's has been a "Diamond" sponsor of the AVMA annual convention each of the last three years (in the two preceding years the event was held online due to the pandemic), a status indicating a sponsorship in excess of \$200,000 each of 2021 and 2022, and in excess of $\$ 220,000$ in 2023.
49. The American Veterinary Medical Foundation ("AVMF") is a stand-alone not-forprofit organization distinct from AVMA. But in its own words it operates as the "charitable arm" of the AVMA. In recent years, a material fraction of AVMF's revenues have come from gifts and donations. But the source and precise value of these gifts is not a matter of public record because, like AVMA, AVMF redacts this information from its tax returns. Nevertheless, press releases show that it has received considerable funding from Hill's as well. According to these press releases, in various years over the past fifteen years Hill's has donated to AVMF in amounts between $\$ 10,000$ and $\$ 1,000,000$.

## Lisa Freeman

50. Across its vast sphere of veterinary influence, Hill's has perhaps no more willing and energetic research partner than Defendant Dr. Lisa Freeman, an influential veterinarian who writes and publishes extensively both in scholarly journals and consumer friendly contexts in her position as a veterinary professor at Tufts University. Dr. Freeman has been receiving financial support from Hill's since at least 1998. At that time, she was the lead author on an article concerning the impact of diet (fish oil) on dogs with heart failure. Notes at the end of the article indicate that the work was completed in conjunction with a PhD degree for Dr. Freeman, and that the grants supporting it included funding from the Mark Morris Institute and Hill's Pet Nutrition.
51. During the same period, she published another article, Antioxidant Status in Dogs with Idiopathic Dilated Cardiomyopathy, which also contained a note that the work was supported in part by Hill's Pet Nutrition. Freeman, LM, Brown, DJ, et al, Antioxidant Status in Dogs with Idiopathic Dilated Cardiomyopathy, J. Nut., 128-12, S2768-S2770 (1998) (available at https://www.sciencedirect.com/science/article/pii/S002231662302312X?via\%3Dihub) (last visited Feb. 1, 2024) .
52. As reported by the organization 100Reporters, in its report, Did Industry Funding Influence an FDA Investigation into Canine Heart Disease and Grain-Free Dog Food, (https://100r.org/2022/07/did-industry-funding-influence-an-fda-investigation-into-canine-heart-disease-and-grain-free-dog-food/) (last visited Feb. 1, 2024), over the past twenty years Dr. Freedman has authored studies funded by Hill's, and/or by its peer legacy kibble pet food companies Mars and Nestle-Purina Petcare, a total of at least thirty different times.
53. Up through the summer of 2022, Dr. Freeman routinely stated that in the preceding three years she had received research funding from, given sponsored lectures for, and/or provided professional services to companies that included Hill's Nutrition and in at least one key article she specifies that she has given sponsored lectures for Hill's.
54. Dr. Freeman is a veterinary nutritionist, but with respect to the impact of "BEG" foods, her research focus is cardiology - the impact of these foods on dogs' hearts. At her university, Tufts, the veterinary cardiology laboratory is called the Yang Laboratory, named after Dr. Vicky Yang, who was Dr. Freeman's sometime co-author on studies of diet-related DCM.
55. Defendant MAF, one of Hill's affiliated cut-outs, is one of only three listed funders of the Yang Laboratory.
56. In addition to its support for the Yang Laboratory through MAF and its relationship to the Tufts faculty members working there, Hill's, through MAF, has provided nearly half a million dollars in additional grant money for research studies at Tufts since 2015.
57. Dr. Freeman is also a co-founder of the "Petfoodology" website, the official blog of the Clinical Nutrition Service at Defendant Tufts University's Cummings School of Veterinary Medicine. See https://vetnutrition.tufts.edu/petfoodology/ (last visited Feb. 1, 2024).
58. According to its "About Us" section, Petfoodology has three founders: Defendant Lisa Freeman and two other vets, Dr. Deborah Linder and Dr. Cailin Heinze. Dr. Freeman's financial ties to Hill's were outlined above but Dr. Linder and Dr. Heinze are financially tied to Hill's as well. According to a disclosure statement on the Petfoodology site, Dr. Heinze "is an employee of" Defendant MMI. In fact, though not spelled out in in the Petfoodology disclosure language, Dr. Heinze is the Executive Director and Chief Academic Officer for MMI. Dr. Linder,
for her part, "has received speaker fees or research funding" from Defendant Hill's and "has provided professional services for" Defendant MMI.
59. Notably, in what seems to be disingenuous language, on the "Why Should You Trust Us?" page of the Petfoodology site, all three state "we are not employees of any pet food companies and we don't have any ownership interest in any companies that make pet food, treats, or supplements." While these statements may be literally true, they are highly misleading because they don't disclose any of the extensive financial conflicts of interest that the founders $\boldsymbol{d} \boldsymbol{o}$ have with Hill's. https://vetnutrition.tufts.edu/2016/07/who-we-are-and-why-trust-us/ (last visited Feb. 1, 2024).
60. As described further, infra, Dr. Freeman has posted four articles on the Petfoodology website suggesting a connection between "BEG" diets and DCM. Hill's links to one of these articles ${ }^{4}$ on its own website. See https://www.hillspet.com/dog-care/nutrition-feeding/alternative-protein-salmon-turkey-duck-dog-foods (last visited Feb. 1, 2024).
61. Consistent with its broader practice of using veterinarians to influence consumer behavior, Hill's also actively promotes Dr. Freeman's Petfoodology blog to pet owners by encouraging veterinary professionals to send their clients to it. In a section of the Hill's website specifically designed for veterinary professionals (www.hillsvet.com), among the "free resources" for vets that the company provides are templates for veterinarians and their technicians to use in

4 Lisa Freeman, It's Not Just Grain-Free: An Update on Diet-Associated Dilated Cardiomyopathy, Petfoodlogy, Tufts University (Nov. 29, 2018), https://vetnutrition.tufts.edu/2018/11/dcm-update/ (last visited Feb. 1, 2024)


Recommend post copy options:

1. Check out the latest posts on Petfoodology for information on pet nutrition science written by veterinary nutrition specialists and experts. You can find the information at bit.ly/3B74sn3
2. Learn More About the Science of Pet Nutrition From Tuft's Petfoodology website at bit.ly/2Y6Lr5E

See https://na.hillsvna.com/en_US/resources-2/view/73) (last visited Feb. 1, 2024).
62. In another "free resource" available on the Hill's website, a downloadable "all-inone resource for navigating nutrition discussions with clients," Hill's describes the Petfoodology site as "reliable pet nutrition website" with "easy-to-understand perspectives on pet nutrition science":

## RELIABLE PET NUTRITION WEBSITES AND RESOURCES

World Small Animal Veterinary
Association Nutrition Toolkit:
Nutritional recommendations for every life stage
bit.ly/3mfLp3I

Pet Nutrition Alliance
Online dog and cat calorie calculators and other tools
and resources on pet nutrition. bit.ly/2Yk4Nof

WSAVA Global Nutrition Committee:
Guidelines on Selecting Pet Foods
One-page resource outlining the most important things to know and consider when choosing a pet's food
bit.Iy/3uEIQx6

American College of Veterinary Nutrition
FAQs on pet nutrition and tools to find board-certified veterinary nutritionists for case consults acvn.org/

The Sawy Cat Owner's Guide to Nutrition on the Internet Two-page resource on how to read and assess cat nutrition information found online. bit.ly/3uuSTPt

The Sawy Dog Owner's Guide to Nutrition on the Internet Two-page resource on how to read and assess dog nutrition information found online. bit.Iy/3UEIQx6

Association of American Feed Control Officials (AAFCO)
Pet food industry and regulatory information aafco.org/

United States Food and Drug Administration (FDA)
Up-to-date information on pet food recalls and advisories bit.ly/3ou8278

## Petfoodology

Easy-to-understand perspectives on pet nutrition science written by veterinary nutrition specialists and experts bit.ly/2Y6Lr5E

See https://na.hillsvna.com/en_US/resources-2/view/25 (last visited Feb. 1, 2024). As explained infra at $\mathbb{I}$ 147, other "reliable pet nutrition websites and resources" referenced in the guide are platforms for misinformation propagated by Hill's as well. Both Freeman and Hill's obscure the connections between them, while Hill's tells professionals and the public that Petfoodology is a reliable source for information on its competitors' products.
63. Dr. Freeman's writing is not limited to the Petfoodology site. Indeed, during her time on the Hill's payroll, Dr. Freeman has used her impressive academic credentials to publish an assortment of both scholarly and consumer-friendly articles whose findings were consistently beneficial to Hill's. More specifically, she often produced studies and other pieces of academic writing that shared three qualities: (1) they raised concerns about the supposed risks of large classes
of pet food products, (2) despite a lack of valid scientific evidence of those risks, when (3) the products at issue competed with Hill's.
64. First in 2001 she published an academic article in which she argued that raw pet food products (a diverse class of products that all compete directly with Hill's) are uniformly dangerous for dogs and cats, despite failing to highlight a single instance of any such product causing illness. In the article (entitled Evaluation of Raw Food Diets for Dogs) she admitted that there is "a lack of scientific information" showing that any harm whatsoever has ever been caused by any of the many raw pet food products sold by commercial producers. Nevertheless, she and her co-author concluded that "there are clearly nutritional and health risks associated with feeding raw food diets" and "strongly recommend" that pet owners avoid them.
65. In 2013, she co-authored another journal article on raw foods (Freeman LM, Chandler ML, Hamper BA, Weeth LP. Current knowledge about the risks and benefits of raw meat-based diets for dogs and cats., J Am Vet Med Assoc. 2013 Dec 1;243(11):1549-58. https://doi.org/10.2460/javma.243.11.1549 ${ }^{5}$ ). That article concludes with an appendix of recommendations for choosing a pet food manufacturer. The recommendations exclude all but the largest manufacturers, stating, for example, that quality manufacturers should own the factories in which their food is processed and should conduct and publish research in peer reviewed journals, qualifications that are too costly for all but the largest brands. ${ }^{6}$
66. In 2014 Dr. Freeman was also the co-author of editorial in JAVMA titled, Thiamine deficiency in dogs and cats. Freeman, LA, Thiamine Deficiency in dogs and cats, J. Vet. Am. Vet.

5 https://avmajournals.avma.org/view/journals/javma/243/11/javma.243.11.1549.xml (last visited Feb. 1, 2024)

6 These recommendations cite and rely on the World Small Animal Veterinary Association guidelines to which Dr. Freeman herself was a significant contributor.

Med. Ass'n, Vol. 243, Issue 5 (Sept. 2013) https://doi.org/10.2460/javma.243.5.649, https://avmajournals.avma.org/view/journals/javma/243/5/javma.243.5.649.xml (last visited Feb. 1, 2024)). One of the other authors was Cailin R. Heinze, who, as noted above, is the executive director and chief academic officer for MMI. This article stated in its introduction, "nutritional deficiencies have become uncommon because reputable pet food manufacturers regularly test their products to ensure that they contain adequate amounts of all nutrients. Anecdotally, most reported deficiencies currently arise from animals eating incomplete or unbalanced homemade, vegetarian, or raw meat diets." Under "Risk factors" for low thiamine, it states," [i]n particular, animals that are fed unconventional diets (egg, raw food diets, nutritionally incomplete or unbalanced commercial pet foods, or home-prepared diets) have a number of unique risks."
67. Also, for instance, on the Tufts University website, she has posted an article concerning underweight dogs, which states, "If the dog is eating a diet that is nutritionally unbalanced or whose calories and other nutrients are not being well assimilated by his body, it is critical to switch him to a well-known brand made by a reputable company that has a good history of testing its products to insure a proper balance of nutrients and efficient digestion by the body. This is critical. ${ }^{, 7}$ Hill's also links to this article on its own website ${ }^{8}$

## Dr. Rush

68. Dr. Rush is, on information and belief, the husband - as well as university coworker - of Dr. Freeman.

7 https://www.tuftsyourdog.com/doghealthandmedicine/is-my-dog-too-thin (last visited Feb. 1, 2024)/.

8 https://www.hillspet.com/dog-care/healthcare/is-my-dog-too-skinny (last visited Feb. 1, 2024) (see hyperlink referencing the Cummings School of Veterinary Medicine at Tufts University).
69. Dr. Rush co-authored many studies at issue with Dr. Freeman. Some of his lab work for cardiology is, on information and belief, done through the Yang Laboratory at Tufts, which is funded by Hill's (through MAF). He is, like Dr. Freeman, a professor at Tufts University's Cumming's Veterinary School and has the same institutional conflicts (described supra).
70. His standard conflict statement as of 2023 indicates that in the last 3 years, Dr. Rush has received funding from, given sponsored lectures for, or provided professional services to companies that include Hill's Pet Nutrition.
71. He has also worked on studies that received funding (grants in 2009 and 2014) from MAF.

## Dr. Adin

72. During the key years leading up to 2018, when Dr. Adin and Dr. Freeman, as described infra, sent a cherry-picked set of cases to the FDA causing it to announce an investigation into DCM, Dr. Adin worked at the veterinary school of North Carolina State University, which between 2015 and 2018 was the largest academic recipient of research grants from MAF - \$2,284,281.00.
73. Some of that funding went to support at least three studies that Dr. Adin worked on during that period, making Hill's affiliates financial relationships both for Adin's research institution and for Adin's research personally. She also co-wrote an article disparaging of grainfree diets with another North Carolina State University professor, Dr. Kathryn M. Meurs, who was, in 2016, the first recipient of MAF's Mark L. Morris Jr. Investigator Award. ${ }^{9}$ See Adin D,

9 https://www.morrisanimalfoundation.org/article/respected-veterinary-cardiologist-first-recipient-mark-l-morris-jr-investigator-award (last visited Feb. 1, 2024)

DeFrancesco TC, Keene B, et al., Echocardiographic phenotype of canine dilated cardiomyopathy differs based on diet type, J. Vet. Cardiol., 21:1-9 (2019) (https://www.sciencedirect.com/science/article/pii/S1760273418300882) (last visited Feb. 1, 2024).
74. In addition, MAF has previously funded cardiomyopathy research at North Carolina State University. In 2015 the school was granted approximately \$118,000 to look for genetic causes of hypertrophic cardiomyopathy in cats. Dr. Adin worked on that article. See, Meurs, K.M., Williams, B.G., DeProspero, D. et al., A deleterious mutation in the ALMS1 gene in a naturally occurring model of hypertrophic cardiomyopathy in the Sphynx cat. Orphanet J Rare Dis 16, 108 (2021) (available at https://doi.org/10.1186/s13023-021-01740-5) (last visited Feb. 1, 2024).
75. In 2018, Dr. Adin moved to the University of Florida. MAF has also funded research on dilated cardiomyopathy at University of Florida. In 2021, it awarded an \$80,116 grant to develop gene editing tools to treat dilated cardiomyopathy in dogs.

## Dr. Stern

76. Dr. Stern is a professor at UC Davis who has authored multiple studies casting a negative light on the role of "BEG" diets in DCM in dogs. He was also, from at least as early as 2018 (the earliest annual report publicly available) to 2020 a member of the MAF Small Animal Scientific Advisory Board. In 2021, MAF divided that panel into a Canine Scientific Advisory Board and a Feline Scientific Advisory Board and made Dr. Stern the chairman of both.
77. Moreover, in its 2021 Annual Report, MAF included a two-page spread singing the praises of Dr. Stern, the only veterinarian so honored that year.
78. Between 2015 and 2022, the veterinary program at U.C. Davis received approximately $\$ 1,355,813.00$ in grant funding from MAF, making it the school that received the fourth most funding during that period from MAF out of any in the nation.
79. On information and belief, Dr. Stern has been a co-author of studies that were partially funded by MAF grants. On information and belief, Stern has not been consistent about disclosing that Hill's affiliates are sources funding for his working including articles about nontraditional diets and DCM.
80. At least one such study stands out. According to MAF's 2019 report of grants given, the following grant went to the school where Dr. Stern teaches, U.C. Davis:

Golden Retriever Lifetime Study
DI9CLP-002
Looking at Diet and Heart Disease in Golden Retrievers
UNIVERSITY OF CALIFORNIA, DAVIS
Projected Duration: 1 year
SUMMARY: Using data and samples from the Morris Animal Foundation Golden Retriever Lifetime Study, researchers will look for links between certain dog food ingredients/ formulations and the development of taurine deficiency and associated heart disease in golden retrievers.

DESCRIPTION: Taurine deficiency is a known cause of dilated cardiomyopathy in several species including dogs and cats. Recent FDA warnings alerted dog owners to a link between certain nontraditional diets and dilated cardiomyopathy in dogs. Researchers will establish reference ranges for taurine concentrations in golden retrievers, a breed having a surge in reported cardiomyopathy cases. In addition, the team will compare taurine blood levels between golden retrievers eating traditional diets with those consuming nontraditional diets. The team's goal is to identify relative risk of certain dog food ingredients in the development of both taurine deficiency and dilated cardiomyopathy in dogs. Information will provide muchneeded guidelines for veterinarians and the pet food industry on diet formulation. Updated information may help reduce and/or eliminate this risk for heart disease in golden retrievers and other breeds.
81. Unlike every other grant in the report except the few, like this one, that are listed as receiving money from the "Morris Animal Foundation Golden Retriever Lifetime Study," this grant does not list a dollar amount.
82. In 2020, Dr. Stern was one of the co-authors on a paper titled, Development of plasma and whole blood taurine reference ranges and identification of dietary features associated with taurine deficiency and dilated cardiomyopathy in golden retrievers: a prospective,
observational study. By Ontiveros ES, Whelchel BD, Yu J, et al., PLoS One, 15(5) (2020), https://doi.org/10.1371/journal.pone.0233206 (available at $\underline{\text { https://journals.plos.org/plosone/article? } \mathrm{id}=10.1371 / \text { journal.pone.0233206) (last visited Feb. 1, }}$ 2024)). This study appears to cover exactly the research that the above-described grant indicated that it would cover, but the article does not list MAF as one of its sources of funding.
83. This is particularly notable because, as described infra, the authors of this article received a rare public reprimand for, inter alia, not adequately disclosing conflicts of interest, even though, in response to the expression of concern, a different doctor acknowledged that he was compensated for giving lectures or acting as an advisor for MMI and that he mentored a resident who received funds from the Hill's Fund Pet Nutrition Resident Clinical Study Grant's program, Dr. Stern still did not identify the Golden Retriever Lifetime Study or MAF as a funder or a conflict of interest.
84. The statement of concern took issue not only with the funding and conflict disclosures but also with the research methodology. A corrective publication issued years later, in response to the filing of the statement of concern, stated that, inter alia:

The Academic Editor and statistical reviewer both advised that heterogeneity between groups is a substantial concern with the study design that cannot be adequately addressed with a statement regarding study limitations. In light of the within- and between-group heterogeneity and the limited statistical analyses that were reported, the conclusions about differences between the groups are not wellsupported. For example, conclusions linking diet to risk of echocardiographic abnormalities and dilated cardiomyopathy are not adequately supported.

See https://journals.plos.org/plosone/article?id=10.1371/journal.pone. 0291101 (last visited Feb. 1, 2024). The authors of the study were forced to issue a correction that partially addressed such issues and continue to disagree with their peer scientists on certain points.
85. In addition, Plaintiff believes that evidence will show that a similar, earlier study co-authored by Dr. Stern was also funded by the Morris Animal Foundation's Golden Retriever Lifetime Study.
86. In 2018, Dr. Stern and others published a study, Kaplan JL, Stern JA, Fascetti AJ, et al.,Taurine deficiency and dilated cardiomyopathy in golden retrievers fed commercial diets, PLoS One, 13(12) (2018), doi: 10.1371/journal.pone.0209112. (Available at https://journals.plos.org/plosone/article? $\mathrm{id}=10.1371 /$ journal.pone. 0209112 (last visited Feb. 1, 2024)).
87. In its report of grants that it issued between 2015 and 2017, MAF lists the following:

$$
\begin{aligned}
& \text { D10CLP-001 } \\
& \text { Golden Retriever Lifetime Study } \\
& \text { MORRIS ANIMAL FOUNDATION RESEARCH } \\
& \text { Study Start Date: 3/1/2010 Projected Duration: } 14 \text { years } \\
& \text { (Fully enrolled in 2015) } \\
& \text { SUMMARY: Morris Animal Foundation's Golden Retriever Lifetime Study will help identify major } \\
& \text { nutritional, genetic and environmental risk factors for cancer and other important diseases } \\
& \text { in dogs. } \\
& \text { DESCRIPTION: Morris Animal Foundation's Golden Retriever Lifetime Study - the largest } \\
& \begin{array}{l}
\text { prospective, longitudinal study in veterinary medicine in the United States - is following a cohort } \\
\text { of more than 3,000 purebred golden retrievers throughout their lifetime. The Foundation, with } \\
\text { the help of veterinarians and dog owners, is collecting annual nutritional, environmental, genetic } \\
\text { and behavioral data on enrolled dogs. Results will provide comprehensive data on diseases and } \\
\text { other health challenges in dogs, including cancer. }
\end{array}
\end{aligned}
$$

88. The article's conclusions include that "[a]lthough a cause and effect relationship [between "grain-free, uncommon protein based, or legume-rich formulations" and DCM] cannot be proven, the associations are concerning and warrant caution as well as future prospective studies."
89. Given the taurine study that MAF funded at U.C. Davis in 2019 through the Golden Retriever Lifetime Study, it seems likely that they also funded this earlier similar study. However, the conflicts section of the article does not report any conflict with Hill's and as to sources of
funding, the article states, "[t]he authors received no specific funding for this work." If they did receive funding from MAF, this omission conceals their conspiracy.
90. MAF has also funded other research concerning dilated cardiomyopathy and other cardiomyopathies. For example, in 2020, a $\$ 108,000$ grant went to researchers at UC Davis to study dilated cardiomyopathy in Doberman pinschers. In 2017, a similar grant was award to researchers at Davis to study cardiomyopathy in sea otters. In 2021, MAF awarded researchers at Davis approximately $\$ 99,118$ to study the causes of embolism in cats with hypertrophic cardiomyopathy. In 2022, it awarded approximately $\$ 205,000$ to U.C. Davis researchers for work relating to genetic causes of hypertrophic cardiomyopathy in cats, including a $\$ 124,000$ training grant.

## Dr. Fries

91. Dr. Fries worked at the University of Illinois, the university whose veterinary research program has received the second most funding in the country between 2015 and 2022 from MAF -- $\$ 2,242,389.00$.
92. Dr. Fries worked on articles that were partially funded by MAF. These include: Reinhart JM, Perkowski C, Lester C, Campos V, Kadotani S, Li Z, McKiernan BC, Fries R, Multidose pharmacokinetics and safety of a modified, compounded theophylline product in dogs, J. Vet. Pharmacol. Ther., 44(6):902-909 (Nov. 2021), available at https://doi.org/10.1111/jvp. 12997 (Epub 2021 Jun 26. PMID: 34173985) (last visited Feb. 1, 2024), where some of the research support was provided by an MAF grant; and Teslenko A, Fries RC, Selmic LE, Comparison of in-hospital continuous electrocardiography versus recordable Holter monitoring in dogs with ventricular arrhythmias, J. Vet. Emerg. Crit. Care (San Antonio), 31(6):758-765 (Nov. 2021), available at https://doi.org/10.1111/vec. 13120 ( (Epub 2021 Sep 12.

PMID: 34510708) (last visited Feb. 1, 2024), an article in which a participating student which received funding from a 2018 MAF grant: the Veterinary Student Scholars Program C17CA-603.
93. As detailed further herein, on the Hill's website page concerning DCM, it links to an interview with Dr. Fries in which he expressly suggests that DCM may be linked to "boutique diets" from "smaller manufacturers."

## Hill's Declining Market Share

94. Hill's was uniquely positioned in the industry. It was and is (a) the smallest of the major producers, and (b) the most dependent on veterinarian recommendations and the goodwill of a more particular and attentive customer base. Therefore, prior to the FDA investigation, Hill's was losing market share to a small but broad and significantly growing competitive fringe offering alternatives to its products across an array of nutritional approaches. While Hills' larger peers could hold market share against the independents, the rising independent share came largely at Hill's' expense.
95. Hill's popularity with pet-owners had begun to wane by 2014. That year, the company's annual revenues were $\$ 2.26$ billion. But four years later, in 2017, its annual revenues were still only $\$ 2.29$ billion, meaning that over the four-year period ending in 2017, the company grew by a total of only about $1 \%$. During this time, the American Pet Products Association reports that the overall U.S. pet food industry grew by more than $28 \%$, from $\$ 22.62$ billion (in 2014) to $\$ 29.07$ billion (in 2017). Source: American Pet Products Association Market Research and Data on Market Size, 2019.
96. As such, during the period from 2014 to 2017, Hill's market share fell by more than $20 \%$.
97. Comparison with industry leader Purina shows the Hill's dilemma. Topline revenue numbers (\$B) for both companies, from their publicly-filed annual reports, demonstrates that in the five years 2013 to 2017, inclusive, Purina grew its revenue every year by hundreds of millions of dollars, and a total of over a billion in that time. Hill's did not. Hill's inconsistent year-over-year pattern for those years is better described as stagnant:

|  | Hills | Purina |
| :---: | :---: | :---: |
|  | Net Sales | Net Sales |
| 2013 | 2.21 | 11.2 |
| 2014 | 2.26 | 11.3 |
| 2015 | 2.21 | 11.5 |
| 2016 | 2.26 | 12.1 |
| 2017 | 2.29 | 12.5 |
| 2018 | 2.39 | 12.8 |
| 2019 | 2.53 | 13.6 |
| 2020 | 2.88 | 14 |
| 2021 | 3.31 | 15.6 |
| 2022 | 3.71 |  |
|  |  |  |

98. One of the primary reasons for Hill's declining market share during this period was the rapid growth in the grain-free sector of the pet food industry. According to the New York Times (quoting pet food industry analyst Maria Lange), grain-free products made up only $15 \%$ of the sales in American pet specialty stores as of 2011. Jan Hoffman, Popular Grain-Free Dog Foods May Be Linked to Heart Disease, New York Times, July 24, 2018 (available at
https://www.nytimes.com/2018/07/24/health/grain-free-dog-food-heart-disease.html (last visited Feb. 1, 2024)). But by 2017, just six years later, the grain-free market share had tripled, to $44 \%$ of that market. Id. The implication was obvious: Hill's was quickly losing market share to its grain-free competitors.
99. Just as Hill's was uniquely in need of a way to protect it from marketplace innovation that threatened its position, it also was uniquely positioned to conduct and benefit that effort. Hill's positions itself prominently in the marketplace as the most veterinarian recommended brand, giving it a closer relationship with veterinarians who sell both its prescription and non-prescription products.
100. Hill's advertising and social media prominently feature the phrase "Ask Your Vet":


101. Further, Hill's positioning, with veterinarians that carry its products acting as its salesforce, is clear in its financial results. In 2017, for example, the total US market for therapeutic/prescription diets was $\$ 1.27$ billion. The Hill's Prescription Diet line (for which the FDA does not require a prescription, but which Hill's markets as prescription and sells, in significant part, through veterinarians) was $\$ 743 \mathrm{M}$ of that, or $59 \%$ of the total. All other firms combined only accounted for $41 \%$. Purina was responsible for no more than $\$ 122$ million, a miniscule portion of Purina's twelve billion in annual revenue.
102. In or around 2017, Hill's was facing flat sales, rapid erosion of its market share, and a new, concentrated competitive threat that uniquely disadvantaged it and not its large peers. Against this backdrop,, on information and belief, Hill's, Dr. Freeman, Dr. Adin, and the other Defendants devised a plan. They decided that they would conduct a coordinated campaign to raise "concerns" about the "risks" of grain-free pet foods.
103. Using the tools of professional science and Hill's vast veterinary influence network, the goal of the scheme was to persuade American pet-owners that grain-free diets weren't just "fad diets" but actually dangerous for dogs-an argument that, if successful, had the potential to eradicate the entire grain-free sector of the pet food market. They have been carrying out this wideranging scheme ever since and it has been, by any measure, a breathtaking (if unlawful) success.
104. The scheme would operate just like the one Dr. Freeman had conducted years before with raw diets, another group of products that was taking market share away from Hill's and other legacy pet food manufacturers. Indeed, Dr. Freeman ran a remarkably similar playbook in her campaign against raw diets to the one she later ran with respect to "BEG" diets.
105. First, she was the lead author of an article warning of an array of purported risks in JAVMA. Freeman LM, Michel KE, Evaluation of raw food diets for dogs, J. Am. Vet. Med. Assoc., 218:705 (2001) (available at https://doi.org/10.2460/javma.2001.218.705 (last visited Feb. 1, 2024)). She made use of the catchy acronym for one of the raw food diets at issue - the "BARF Diet" for ("Bones and Raw Food"). She published on it again. Freeman L.M., Chandler M.L., Hamper B.A., Weeth L.P., Current knowledge about the risks and benefits of raw meat-based diets for dogs and cats, J. Am. Vet. Med. Assoc., 243:1549-1558 (2013) (available at https://doi.org/10.2460/javma.243.11.1549 (last visited Feb. 1, 2024)). It was written about on the Tufts Petfoodology blog. See Raw Diets: A Healthy Choice or a Raw Deal?, Nutrition Staff, January 12, 2016. https://vetnutrition.tufts.edu/2016/01/raw-diets-a-healthy-choice-or-a-rawdeal/ (last visited Feb. 2, 2024). Repeatedly. See Heinze, C., Is it the food? Pet food-associated illness, May 24, 2021 (available at https://vetnutrition.tufts.edu/2016/01/raw-diets-a-healthy-choice-or-a-raw-deal/ (last visited Feb. 2, 2024)); Heinze C., Raw diets: Pet owners frequently underestimate human health risks, January 17, 2022 (available at
https://vetnutrition.tufts.edu/2022/01/raw-diets-perception-of-human-health-risks/ (last visited Feb. 2, 2024)).
106. Similarly, in 2018, Dr. Freeman and the other veterinarians published an article in $J A V M A$, with a catchy acronym ("BEG" diets) warning of unfounded dangers. She and the other Hill's-affiliated veterinarians published additional studies to follow on the first. Again numerous articles (this time attributed to Dr. Freeman herself) were posted about the purported questions of risk on the Petfoodology website.
107. The DCM scheme completely reversed the company's fortunes. In the four years immediately preceding the launch of the DCM scheme (2018), Hill's had virtually no growth. In the four years after the scheme began, the company's revenues grew by more than $\mathbf{5 0 \%}$, to $\$ 3.3$ billion per year. Represented by the space between the blue and red lines in the chart below, according to its annual reports, the DCM scheme has already enriched Hill's by more than 3.35 billion dollars in additional revenue.
108. Just as Hill's was uniquely in need of some weapon against the independent makers, and uniquely positioned with veterinarians to propagandize against them, it also uniquely benefitted. Purina sales increased nearly $25 \%$ in the years following the FDA investigation. But Hill's sales rose a whopping $62 \%$, reversing its sales stagnation and declining market share entirely. The revenue effects are visually arresting:

109. Their scheme has three primary components, each of which is outlined below.

Part One:
The Cherry-Picking Scheme
(Defendants Fraudulently Induced the FDA to Launch a High-Profile Investigation into Grain-Free Diets and Canine Dilated Cardiomyopathy)

The FDA Announces an Investigation into Canine DCM After
a "Spike" in Case Reports from Dog-Owners
110. Canine DCM is a disease of a dog's heart muscle that results in an enlarged, weakened, and leaky heart. It is very serious and can become deadly if not treated.
111. Cardiac diseases are not uncommon in dogs. And, as Defendant Lisa Freeman herself acknowledged in a chapter she contributed to a Purina "Reference Guide for Everyday Use in Veterinary Practice," as of 2010 (prior to the ascent of grain-free pet foods), DCM was already the second most common canine heart disease in the country-suggesting that the disease was already impacting at least hundreds of thousands (and potentially millions) of American dogs at
that time. Even so, as of June 2018, the disease was hardly a household word among American dog-owners.
112. That began to change on July 12, 2018. On that day, the FDA's Center for Veterinary Medicine publicly announced that it had begun an "investigation into [a] potential link between certain diets and canine dilated cardiomyopathy." https://wayback.archive-it.org/7993/20201222194256/https://www.fda.gov/animal-veterinary/cvm-updates/fda-investigating-potential-connection-between-diet-and-cases-canine-heart-disease) (last visited Feb. 2, 2024). According to the FDA, the investigation had been prompted by a "recent spike in DCM cases" submitted through the FDA's product safety reporting portal, an online system whereby consumers can tell the FDA about products that they suspect to have made their pets sick.
113. In its initial announcement, the FDA defined the "certain diets" at the heart of its investigation as those "containing peas, lentils, other legume seeds, or potatoes as main ingredients." These products were the focus of the investigation because "[d]iets in cases reported to the FDA frequently list potatoes or multiple legumes such as peas, lentils, or other 'pulses' (seeds of legumes), and their protein, starch and fiber derivatives early in the ingredient list, indicating that they are main ingredients."
114. The FDA also noted that these ingredients had something important in common: "[h]igh levels of legumes or potatoes appear to be more common in diets labeled as 'grain-free."" The implications were clear and enormous: the FDA was concerned that grain-free diets (a group that collectively made up nearly half of the overall pet food market) could be causing dogs to develop a deadly heart disease.
115. A government investigation into a link between popular products and a deadly disease is newsworthy. And in the days and weeks following the FDA's announcement, alarming
articles about the investigation appeared in the New York Times, the Washington Post, and other major U.S. news outlets. In these articles, the FDA's new investigation was framed as one into "grain-free dog foods." See, e.g., See, e.g., Jan Hoffman, Popular Grain-Free Dog Foods May Be Linked to Heart Disease, New York Times, July 24, 2018 (available at https://www.nytimes.com/2018/07/24/health/grain-free-dog-food-heart-disease.html (last visited Feb. 2, 2024)); Kate Furby, Grain-Free, Exotic Dog Foods Linked to Heart Disease, Washington Post, Aug. 29, 2018 (available at https://www.washingtonpost.com/news/animalia/wp/2018/08/29/grain-free-exotic-dog-food-linked-to-heart-disease/ (last visited Feb. 2, 2024)).

What Prompted the FDA's Investigation? Cherry-Picking by Defendants Darcy Adin and Lisa Freeman
116. Notably, in its initial announcement, the FDA did not tell the public how many DCM cases were in the "spike" that prompted the investigation, or where exactly those cases had come from. In the months following its high-profile announcement (and the attendant cycle of fevered media coverage), hundreds of panicked pet-owners flooded the FDA with reports of DCM cases involving grain-free diets. But the FDA has never told the public how many case reports it had received prior to calling the country's attention to the issue, or where those cases came from.
117. However, responses to FOIA requests made by Plaintiff's executive, Mr. Schulof, reveal a direct effort by a group including the Veterinarian Defendants to manipulate the FDA's view. Below is a screenshot of an email from Defendant Adin to an FDA Veterinary Medical Officer to set up a meeting between the FDA and, inter alia Drs. Adin, Freeman, Fries and Stern to discuss "our clinical observations and concerns concerning a potential relationship between grain-free canine diets and Dilated Cardiomyopathy."

Please email or call me with any questions. Thank you again for your time and expertise, Jen

Jennifer Jones, DVM
Veterinary Medical Officer

FDA U.S. FOOD \& DRUG administration


From: Darcy Adin [mailto @ncsu.edu]
Sent: Thursday, April 19, 2018 11:00 AM
To: Freeman, Lisa @ @tufts.edu>; Joshua A Stern [jstern@ucdavis.edu](mailto:jstern@ucdavis.edu); Fries, Ryan C


Dear Dr. Jones,

We are all able to meet tomorrow, Friday April 20th at 11 am EST to discuss our clinical observations : concerns surrounding a potential relationship between grain-free canine diets and Dilated Cardiomyopathy.

Drs. Saker, Freeman, Hitchcock, Fries and Stern - the call details are in the forwarded email below.
Just a brief introduction for the FDA group:
Dr. Korinn Saker is an Associate Professor of Clinical Nutrition at NC State, College of Vet Med
Dr. Lisa Freeman is a Professor of Clinical Nutrition at Tufts University, College of Vet Med
Dr. Lori Hitchcock is a practicing cardiologist and owner of Ohio Veterinary Cardiology and also Secretary of the American College of Veterinary Internal Medicine (Cardiology)
Dr. Ryan Fries is a Clinical Assistant Professor of Cardiology at Illinois, College of Vet Med
Dr. Josh Stern is an Associate Professor of Cardiology at UC Davis, College of Vet Med
Thank you everyone for making time in your schedule! I am looking forward to this.
Sincerely,
Darcy Adin
118. In addition, the FOIA responses to Plaintiff's executive Mr. Schulof reveal that the "spike" in cases that prompted the FDA's investigation did not reflect a scattered, unrelated group of pet-owners whose dogs all developed DCM at the same time. Instead, it was largely an effort by Defendants Lisa Freeman and Darcy Adin.
119. More specifically, as an internal FDA presentation produced to Mr. Schulof in connection with his FOIA lawsuit shows, on the date that it announced its DCM investigation, the FDA had received 24 reports of canine DCM year-to-date and 28 reports since 2014:

## DCM Reports as of 7/12/2018 FDA CVM Update

- 31 reports
- 3 cat reports
- 7 cats reacted, 1 cat died
- 28 dog reports
- 30 dogs reacted, 3 died

DCM cases reported to CVM by year as of $7 / 12 / 2018$

120. Significantly, 23 of the 28 canine cases in this report, or more than $80 \%$, came from either Dr. Freeman or Dr. Adin. Just five came from sources other than these Defendants, in a nation with 70 million dog owners.
121. The FOIA records also show that Dr. Freeman and Dr. Adin continued to submit canine DCM case reports after the FDA announced its investigation. By September 2019 (the end of the time period covered by Mr. Schulof's FOIA request), the two Defendants had collectively submitted at least 140 different canine DCM case reports to the FDA.

## Dr. Adin and Dr. Freeman "Cherry-Picked" the DCM Case Reports They Submitted to the FDA

122. The problem with the fact that Dr. Freeman and Dr. Adin submitted so many DCM case reports is they did not send the FDA an unbiased, representative sample of the canine DCM cases that they encountered in their respective professional practices. Instead, they intentionally cherry-picked DCM cases involving grain-free diets and submitted those to the FDA.
123. As Dr. Freeman herself has acknowledged, DCM was the second most-common canine cardiac disease in the United States by 2010, meaning that hundreds of thousands (if not millions) of American dogs were afflicted by the disease as of July 2018. Even if there was no connection whatsoever between diet and DCM, the huge popularity of grain-free diets meant that a significant fraction of DCM-positive dogs (at least tens of thousands of animals) were being fed grain-free diets at the time of diagnosis, while the remainder (at least tens of thousands more) were being fed grain-containing ones. Random chance would mean that tens of thousands of dogs suffering from DCM would also have been fed a grain-free diet, even without any causal relationship. But submitting only those cases could preliminarily create the false appearance of a link, at least for the purpose of getting the FDA to publicly announce an investigation.
124. As such (and as Dr. Freeman and Dr. Adin knew as well as anyone in the world), the existence of some DCM-positive dogs being fed grain-free diets did not by itself suggest that DCM was associated with the diets. For such an association to be suggested, DCM would have to be not just common among dogs fed grain-free diets, but more common than among those fed grain-containing products. And in an order to determine whether canine DCM is more common among dogs fed such diets, qualified professionals (such as the veterinarians at the FDA-CVM) would have to analyze a representative sample of dogs with DCM including equal numbers of dogs on and off of grain-free diets and try to determine whether grain-free diets were over- or underrepresented in the sample.
125. On the other hand, a sample of dogs with DCM whose diets were not representative of the broader population of American dogs simply could not be used to determine whether any particular diets were associated with the disease.
126. Dr. Freeman and Dr. Adin deliberately and intentionally chose an unrepresentative group of cases to show the FDA. They did this by "cherry-picking" DCM cases involving grainfree diets and submitting those to the FDA while simultaneously withholding cases involving grain-containing diets.
127. Dr. Freeman inadvertently admitted to this cherry-picking in the attachment to an email she sent to the FDA on August 8, 2018, later produced in response to a FOIA request. In the document, she outlines the "protocol" she was using when encountering DCM cases in her practice (i.e., the process she was using to decide which DCM cases would actually be reported to the FDA and which ones would be swept under the rug). A true and correct copy of the protocol follows.

## Recommended DCM Protocol 6/27/18

1. Collect a complete diet history form on all patients at every visit (exact diet, treats, table food, rawhides/chews, supplements, and foods used for medication administration). See below and attached for diet history forms.
2. If patient is eating any diet besides those made by well-known, reputable companies or if eating a boutique, exotic ingredient, or grain-free (BEG) diet:

- Have owner save all current foods they are feeding (including bags, cans, or other packaging)
- Report case to the FDA (the FDA website includes other useful tips for suspected important information for pet food complaints):
https://www.fda.gov/animalveterinary/safetyhealth/reportaproblem/ucm182403.htm

128. This protocol reveals Dr. Freeman's goals. First, she only effectively discouraged the reporting of DCM cases to the FDA where the dog's diet was not made by one of the largest companies, which she calls "well-known, reputable companies." Second, as discussed more fully below, she uses an artificial term of her own invention, "BEG", an acronym for "Boutique, Exotic or Grain Free." But these three types of diet - boutique, exotic and grain free diets - are not at all similar. Grain free diets are not always boutique. Boutique is simply a matter of company size, that is, any company smaller than the largest ones in the country. And "Exotic" sweeps in both foods that contain grain and those that do not, largely depending on the protein source. Under Dr.

Freeman's rubric, exotic ingredients can include things such as "kangaroo, lentils, duck, pea, fava bean, buffalo, tapioca, salmon, lamb, barley, bison, venison, and chickpeas." Of course these differ greatly from one another. ${ }^{10}$
129. In other words, under the protocol that Dr. Freeman established, an FDA report should only be submitted if a DCM-positive dog was not eating one of the core products made by either Hill's or one of the other two largest and best-established manufacturers in the country. Freeman's own protocol establishes that she cherry-picked her sample in a way that would create the impression of a connection between smaller brands' products and DCM, whether grain-free of not.
130. Just as she specified, of the more than one hundred cases of DCM Dr. Freeman personally submitted to the FDA by September 2019, approximately $99 \%$ of them involved diets that fit into the non-cohesive "BEG" categories she defined.
131. As for Dr. Adin, according to the FOIA records produced to Mr. Schulof, she had already submitted at least 21 DCM case reports to the FDA by September of 2019. Every last one of those reports involved dogs being fed what Defendant Freeman labeled "BEG" diets. This result is too skewed to have occurred by chance, demonstrating that Dr. Adin was also following a protocol to only report cases in dogs fed with the products of smaller competitors.
132. This is powerfully underlined because Dr. Adin was indeed aware of dozens of cases of DCM in dogs eating large producers' food, so that she clearly consciously chose not to submit them to the FDA. In fact, at the very same time that the FDA was deciding whether to

10 See Lisa M. Freeman, A broken heart: Risk of heart disease in boutique or grain-free diets and exotic ingredients, Tufts University, Clinical Nutrition Service (June 4, 2018), https://vetnutrition.tufts.edu/2018/06/a-broken-heart-risk-of-heart-disease-in-boutique-or-grain-free-diets-and-exotic-ingredients/ (last visited Feb. 2, 2024).
launch its DCM investigation in 2018, Dr. Adin was working on a study involving two different cohorts of dogs: a group with DCM that had historically been fed "BEG" diets and another group that had historically been fed the "traditional" diets made by Hill's and the other large firms. She presented preliminary data about her study at the 2018 American College of Veterinary Internal Medicine Forum, held just one month before the FDA announced the launch of its investigation in

July of 2018. A true and correct copy of her research abstract follows.

133. As shown, in her ACVIM Forum presentation, Dr. Adin indicated that her DCM study involved a total of 49 dogs. Of these, 22 were diagnosed with DCM while being fed grainfree diets while 27 (the majority of the dogs in her data set) developed DCM while being fed socalled "traditional" diets. In other words, Dr. Adin was aware of at least 27 cases of canine DCM involving grain-containing, large firm diets, but did not submit any of these to the FDA. This practice demonstrates that her submissions to the FDA were cherry-picked in the same or nearly the same manner as Dr. Freeman's.
134. As professional scientists with decades of experience carrying out peer-reviewed studies, Defendants Freeman and Adin knew that sending only DCM cases with certain diets, while excluding others, created a false impression. Doing so without initially disclosing to the FDA that such a selection protocol was employed, was misleading-and Defendants Freeman and Adin knew it.

## The Cherry-Picked Data Has a Snowball Effect

135. As Dr. Freeman must have hoped in submitting her cherry-picked data, on June 12, 2018, just 8 days after she posted her widely-read first article about DCM on the Petfoodology blog, the FDA issued a warning "alerting pet owners and veterinary professionals about reports of canine dilated cardiomyopathy (DCM) in dogs eating certain pet foods containing peas, lentils, other legume seeds, or potatoes as main ingredients," and stat[ing] that "High levels of legumes or potatoes appear to be more common in diets labeled as "grain-free," but it is not yet known how these ingredients are linked to cases of DCM." https://wayback.archive-it.org/7993/20201222194256/https:/www.fda.gov/animal-veterinary/cvm-updates/fda-investigating-potential-connection-between-diet-and-cases-canine-heart-disease (last visited Feb. 2, 2024). This alert "encourage[d] pet owners and veterinary professionals to report cases of DCM in dogs suspected of having a link to diet" to the FDA.
136. Of course, it was Dr. Freeman's and Dr. Adin's biased reporting that led the FDA to focus its wording on diets with legumes, peas, lentils, potatoes and those that are grain free. On information and belief, Dr. Stern was also involved in bringing a biased selection of DCM cases to the attention of the FDA and was another trigger for its improperly skewed investigation.
137. As a result of the wording of the FDA's warning, a panic was created among pet owners concerning grain-free and pulse-inclusive diets. This led to a disproportionate amount of
the cases reported to the FDA being grain-free fed when compared to dogs fed diets that were grain-containing. It was predictable that this over-reporting would occur - the FDA asked for DCM suspected of having a link to diet, and used wording, influenced by Defendants' skewed reporting, in which the only context it gave to readers for "linked to diet" was grain-free or pulse intensive.

## The FDA Announces that It Is Suspending Public Updates and That It Has Not "Found a Causal Relationship" With Reported Products

138. On December 23, 2022, after issuing two intermediary status updates, the FDA issued a press release stating that:

> FDA does not intend to release further public updates until there is meaningful new scientific information to share. A count of reports of DCM in dogs submitted to FDA as of November 1, 2022, has been added to Questions \& Answers: FDA's Work on Potential Causes of Non-Hereditary DCM in Dogs. FDA has followed up on a subset of these reports, but is unable to investigate every report to verify or confirm the reported information. While adverse event numbers can be a potential signal of an issue with an FDA regulated product, by themselves, they do not supply sufficient data to establish a causal relationship with reported product(s).
139. In short, after four and a half years and a multitude of studies published by Defendants, the FDA still had not found a causal relationship between "BEG" diets and DCM. Despite the lack of findings, the flurry of media, articles, updates, website posts, and misinformation passed to veterinarians that was, as intended, conveyed to their patients, has caused massive financial and reputational harm to the manufacturers of "BEG" diets.

## Part Two:

The Creation and Promotion of the Term "BEG Diets"
140. Right from the beginning of the scheme, Dr. Freeman frequently used a very particular phrase when she discussed the group of dog foods that she (and implicitly, Defendant Adin) claimed were "linked," "associated," or "suspected of being tied to" DCM. Dr. Freeman
called them "boutique, exotic-ingredient, or grain-free" or "BEG" diets. Dr. Freeman made the term up in a blog post she published on the Tufts University "Petfoodology" blog on June 4, 2018, titled A broken heart: Risk of heart disease in boutique or grain-free diets and exotic ingredients. (Available at https://vetnutrition.tufts.edu/2018/06/a-broken-heart-risk-of-heart-disease-in-boutique-or-grain-free-diets-and-exotic-ingredients/ (last visited Feb. 2, 2024)). She repeated this terminology to the FDA when prompted for information about how she chose cases to report. But the FDA did not (and still has not) adopted this term.
141. Of course, one of the most important and telling differences in the group of dog food products that can accurately be called "BEG" and those that can accurately be called "grainfree" is the size of the respective groups. In essence, the "BEG" diet group includes all grain-free diets ("G"), but also includes a huge number of other products as well-the "E" (exotic-ingredient) and B" (boutique) ones. As such, "BEG" diets make up a considerably larger share of the U.S. pet food market than grain-free diets, with no unifying factors.
142. How large? As mentioned earlier, according to the New York Times, in the lead-up to the FDA's DCM investigation $44 \%$ of the pet food sold in American pet specialty stores was grain-free. So the "G" part of "BEG" already represented a massive and diverse group of products. The "B" and "E" parts (neither of which is mutually exclusive to "G," as some pet food products fall into two or even three of the categories) made the fraction even bigger. In fact, the resulting group is so large that the simplest way to define it is to describe what the group does not include. Because when you cross off every "BEG" pet food sold in America, all that is left are products made by one of the four following companies, which also happen to be the four largest and oldest in America: Nestle-Purina Petcare, Mars Petcare, J.M. Smuckers Company (which focuses on snacks), and Defendant Hill's.
143. As noted above, the list of ingredients that qualifies as "exotic" according to Dr. Freeman are "kangaroo, lentils, duck, pea, fava bean, buffalo, tapioca, salmon, lamb, barley, bison, venison, and chickpeas." Any pet food featuring any of these ingredients constitutes a "BEG" diet because it is an "E." Obviously, the ingredients have little in common-some are plant-based while others come from animals, some (such as kangaroo) are truly rare in pet food products, others (such as salmon) are used in dozens, if not hundreds, of them. But one thing they do have in common is they are all exceedingly rare in Hill's products, which tend to be made up primarily of chicken (and chicken byproducts) and corn or rice (and their byproducts).
144. Dr. Freeman did not explicitly define the term "boutique" in her June 4, 2018, blog post. This was likely because defining this term wasn't essential for Hill's-however one defines "boutique," it clearly doesn't include Hill's, one of the oldest, largest, and most established pet food brands in the world. But later statements by the Defendants would make clear what she meant: any manufacturer with less than one billion dollars in annual sales qualifies as a "boutique" pet food. This means that, by Defendants' definition, all but a handful of U.S. pet food brands qualify as "BEG" diets.
145. There are three important things to recognize about the massive group of products that Dr. Freeman is describing when she uses the term "BEG diets." (Other than the fact that they include every pet food sold in America except for those made by Hill's and three other companies.) First, this group is not only huge, it is also hugely diverse. It includes high-protein diets as well as low-protein ones; raw foods, fresh diets, and extruded kibbles; homemade diets and those made by companies with hundreds of millions of dollars of revenue per year; vegan diets and all-meat diets, the list goes on. The reason this diversity is so important is because it demonstrates Dr. Freeman's knowledge that her claims about "BEG" diets were false. Because for Dr. Freeman to
believe that "BEG" diets truly were raising the risk of DCM in dogs, those diets would all have to have something in common (other than competing with Hill's). Without some common thread running through all "BEG" diets, it simply isn't possible that "BEG-ness" could be the root of the DCM problem. And, as Dr. Freeman (a tenured professor of veterinary nutrition at a major research university) obviously knew, that common thread just doesn't exist in such a diverse group of products. Rather, the only thing common to all "BEG" diets, is that they competed with Hill's and the other large producers.
146. Second, Defendant Freeman's "BEG" category of diets tend to make up a disproportionately large share of the products carried by a specific category of pet food retailer: so-called "pet specialty stores." These retailers, many of which are just mom-and-pop storefronts, present themselves as alternatives to big box chains like Petco. And one of the primary ways they do this is by stocking relatively few "traditional" pet food products (such as those made by Hill's) and relatively many "alternative" ones (read: "BEG" diets). Thus, these retailers were damaged particularly severely by the DCM scandal. As explained below in the discussion of the financial ramifications of Defendants' illegal scheme, many of them (including one of the largest in the country, International Pet Partners) were driven out of business completely by DCM.
147. Third, Dr. Freeman has a history of telling pet food owners to avoid what she calls "BEG diets," before and independent of her role in creating the investigation of DCM concerns. Long before the DCM scandal broke, Dr. Freeman was already a leading proponent of the World Small Animal Veterinary Association's ("WSAVA's") "Global Nutrition Guidelines." Like the AVMA, WSAVA is a veterinary group funded by Defendant Hill's. In fact, according to WSAVA's website, Hill's is one of the organization's "gold level" industry partners, meaning that Hill's gives it at least \$55,000 every year. See https://wsava.org/about/industry-partners/hill-s-pet-
nutrition/ (last visited Feb. 2, 2024). In another example of her prodigious history as an industry shill, Dr. Freeman actually chaired the "task force" that created WSAVA's nutrition guidelines in 2011, seven years before the FDA announced its DCM investigation. See https://journals.sagepub.com/doi/pdf/10.1016/j.jfms.2011.05.009/ (last visited Feb. 2, 2024), WSAVA's guidelines don't include specific product recommendations. Instead they counsel consumers to choose foods produced by companies that formulate and manufacture their products in ways that require large capital investment. (For instance, WSAVA only recommends companies that employ at least one full-time, board-certified veterinary nutritionist). Collectively, these requirements are so specific that only four companies in the world meet them, and one of those companies primarily produces treats, not complete diets competitive with Hill's. Before sending the FDA a cherry-picked set of cases suggesting a link between "BEG" diets and DCM, Defendant Freeman was already advocating to veterinarians and pet owners that they avoid any produced other than the largest firms. Her bias in favor of the makers with large market share predates the later DCM issue, and suggests a result in search of a rationale.

## Part Three <br> Mischaracterizing The Science (The Defendants Repeatedly Lied to the Public About the Evidence Surrounding DCM and So-Called "BEG" Diets)

148. After using the cherry-picking scheme to mislead the FDA into launching its highly public investigation, Dr. Freeman, Dr. Adin, and their co-conspirators doubled down. Having manipulated data to prompt a high-profile FDA investigation, Defendants promoted that investigation as if it proved the existence of the phenomenon it proposed to investigate. Defendants told the public that grain-free diets actually were overrepresented among cases of canine DCM. This was false and they knew it. In reality, there was no evidence that DCM is more common in dogs fed "BEG" diets than those fed non-"BEG" diets. In fact, as explained below,
five years later there still isn't any such evidence-after more than a dozen publications and millions of dollars of research investment, there still are no peer-reviewed studies showing that "BEG" diets are correlated with higher incidence rates of actual DCM than non-"BEG" diets. Defendants mischaracterized the FDA's findings (and, later, findings from studies conducted by the Veterinarian Defendants themselves), stating that the investigation and the studies demonstrated a correlation between "BEG" diets and higher incidence rates of canine DCM. But in reality they did not.
149. Throughout this entire campaign-which, in many ways, continues to this dayDefendants deliberately hid the fact that the entire FDA investigation was prompted by their own cherry-picked submissions. Between this and the fact that these highly experienced research scientists repeatedly mischaracterized in very basic ways what evidence did exist on the subject of canine DCM, it is clear that Dr. Freeman, Dr. Adin and the other Veterinarian Defendants knew that every one of these assertions was false.

## False Statements Made to the Lay Public About "BEG" Diets and DCM

150. Defendants' false statements about the scientific evidence surrounding DCM fall into two categories: those designed to mislead laypeople (through mainstream media outlets, websites and social media platforms, and consumer-focused marketing materials) and false statements designed to mislead veterinarians (through academic papers, continuing education courses, and veterinarian-focused marketing). This section involves the first category, those meant for direct public consumption.
151. The FDA announced the launch of its DCM investigation on July 12, 2018. Mainstream media coverage began almost immediately and right from the beginning statements made by Defendants Freeman, Adin, and Stern featured prominently. At present it is unclear
exactly how these three Defendants managed to get quoted in so many of the largest media reports from the time. It appears that perhaps the FDA referred reporters to them, due to the fact that their DCM case reports are what caused the FDA to launch its investigation. In any event, an overview of their false statements from these major media reports follows.
a. Jan Hoffman, Popular Grain-Free Dog Foods May Be Linked to Heart Disease, New York Times. July 24, 2018 (https://www.nytimes.com/2018/

07/24/health/grain-free-dog-food-heart-disease.html. (last visited Feb. 2, 2024).

- Defendants Freeman, Adin, and Stern all provided quotes for this article. At the time they all knew but failed to disclose that the existence of the FDA's investigation (the only potential evidence supporting the assertion that "grain-free dog foods may be linked to heart disease") was based entirely on data that they themselves deliberately cherry-picked.
b. Kate Furby, Grain-Free, Exotic Dog Food Linked to Heart Disease, Washington Post. Aug. 29, 2018 (https://www.washingtonpost.com/ news/animalia/wp/2018/08/29/grain-free-exotic-dog-food-linked-to-heartdisease/ (last visited Feb. 2, 2024).
- Defendants Adin and Stern both provided quotes for this article. At the time they both knew but failed to disclose that the existence of the FDA's investigation (the only potential evidence supporting the assertion that "grain-free, exotic dog food [was] linked to heart disease") was based entirely on data deliberately cherry-picked by the Defendants.
c. Linda Carroll, 'It's Not Going Away': Vets Still Seeing Cases of Dog Heart Problems Linked to Grain-Free Food, NBC News, Dec. 27, 2019. (https://www.nbenews.com/health/health-news/it-s-not-going-away-vets-still-seeing-cases-dog-n1107791 (last visited February 2, 2024).
- Defendant Freeman provided quotes for this article. At the time she knew but failed to disclose that the existence of the FDA's investigation (the only potential evidence supporting the proposition that "heart problems [are] linked to grain-free food") was based entirely on data that she herself deliberately cherry-picked.
- "'There are most likely other pathways to heart damage in dogs consuming BEG diets,' she [Freeman] said." This statement necessarily implies that there is already at least one "pathway to heart damage in dogs consuming BEG diets." Defendants have not substantiated that statement.
d. Linda Carroll, New 'Piece of the Puzzle': Why Some Dog Foods May Be Linked to Deadly Heart Disease, NBC News, Aug. 5, 2021 (https://www.nbenews.com/health/health-news/new-clue-suggests-why-some-dog-foods-may-be-linked-n1275968 (last visited Feb. 2, 2024)).
- Defendant Freeman provided quotes for this article. She knew but failed to disclose that the data used in her new study (the subject of the article) was deliberately cherry-picked to implicate "BEG" diets because it focused, in part, on the "diets ... most frequently reported to the FDA" without disclosing that those diets were most frequently reported because, in part, she herself cherry-picked them.

152. Despite the wide circulation of popular newspapers like the New York Times, another type of media platform abused by the Defendants may have had an even more significant impact on the lay public's (mis-)understanding of the DCM scandal. That platform is the blog of the Clinical Nutrition Service at Defendant Tufts University's Cummings School of Veterinary Medicine, a site called "Petfoodology." See https://vetnutrition.tufts.edu/petfoodology/ (last visited Feb. 2, 2024).
153. Petfoodology has published at least four articles about the DCM scandal, all of which were authored by Lisa Freeman. The first two were published about five years ago, around the same time that the FDA began its DCM investigation. Even so, of the more than 100 articles published on the site as of April 2023, these two DCM articles both remained among the site's most popular. In fact, according to Dr. Freeman herself, her first DCM article "had more than 180,000 page views in the first week" and was still getting "more than 2,000 page views a day" by late 2018. https://vetnutrition.tufts.edu/2018/11/dcm-update/ (last visited Feb. 2, 2024) As veterinary nutrition articles go, they have been wildly popular.
154. Dr. Freeman's various Petfoodology articles all contain an abundance of misinformation about canine DCM. A non-exhaustive list of her false and materially misleading statements from these articles follows, along with short explanations about each.
a. A Broken Heart: Risk of Heart Disease in Boutique or Grain-Free Diets and Exotic Ingredients, June 4, 2018. (See https://vetnutrition.tufts.edu/2018/06/a-broken-heart-risk-of-heart-disease-in-boutique-or-grain-free-diets-and-exoticingredients/ (last visited Feb. 2, 2024)).

- "[A] recent increase in heart disease in dogs eating certain types of diets [i.e., "BEG" diets] may shed light on the role of diet in causing heart
disease." This statement is false because there is no valid scientific evidence that any heart disease is or was increasing in commonality among dogs eating "BEG" diets as contrasted to traditional diets. The only data suggesting that this was the case came from defendants' own cherry-picked samples and the snowballing, skewed reporting that Defendants' manipulation engendered.
- "Recently, some veterinary cardiologists have been reporting increased rates of DCM in dogs." This statement is false because it implies that there was, in fact, such an increase, but there is no valid scientific evidence of increasing rates of DCM in dogs. In fact, peer-reviewed research focusing specifically on the rate of DCM diagnosis during this time period found no evidence of an increasing number of cases. See https://www.frontiersin.org/articles/10.3389/fanim.2022.846227/full (last visited Feb. 2, 2024).
- "There is suspicion that the disease is associated with eating boutique or grain-free diets, with some of the dogs improving when their diets are changed." This is misleading because the suspicion was itself created by cherry-picked reporting by Defendants Freeman and Adin. Further, any scientific evidence of dogs "improving when their diets are changed" also included, in addition to any diet change, the commencement of common, well-established methods of treating DCM in dogs.
- "The [FDA] and veterinary cardiologists are currently investigating this issue." This is misleading because, as Dr. Freeman knew, the FDA was
only investigating this issue because of fraud committed by Dr. Freeman herself along with her co-conspirators.
- "Most of these affected dogs were eating boutique, grain-free, or exoticingredient diets." This statement is false because there is no valid scientific evidence that dogs with DCM were more likely to be eating boutique or grain-free diets based on reporting was not skewed by Dr. Freeman's cherry-picking protocol and her own heavy reporting of cases to the FDA.
- "What seems to be consistent is that it [DCM] does appear to be more likely to occur in dogs eating boutique, grain-free, or exotic-ingredient diets." This statement is false because there is no valid scientific evidence that dogs with DCM are more likely to be eating boutique or grain-free diets, based on reporting was not skewed by Dr. Freeman's cherrypicking protocol and her own heavy reporting of cases to the FDA.
b. It's Not Just Grain-Free: An Update on Diet-Associated Dilated Cardiomyopathy, Nov. 29, $2018 . \quad$ See https://vetnutrition.tufts.edu/2018/11/dcm-update/ (last visited Feb. 2, 2024).
- "It's Not Just Grain-Free." This statement is false for several reasons. First, because it implies that there already is evidence that grain-free diets have been associated - or has some cause and effect relationship -with DCM, when in reality there is no valid scientific evidence that in a statistically balanced sample, dogs with DCM are more likely to be eating grain-free diets. Second, it implies that there is also evidence that " $B$ "
and " $E$ " diets are "associated" with DCM, when in reality there is no valid scientific evidence of that either.
- "This does not appear to be just an issue with grain-free diets." This statement is false for several reasons. First, because it implies that there already is evidence that grain-free diets have been associated with DCM, when in reality there is no valid scientific evidence that in a statistically balanced sample, dogs with DCM are more likely to be eating grain-free diets. Second, it implies that there is also evidence that " $B$ " and " $E$ " diets are associated with DCM, when in reality there is no valid scientific evidence of that either.
- "The apparent link between BEG diets and DCM may be..." This is false because there is no valid evidence of a meaningful link between " $B E G$ " diets and dogs with DCM.
- "[W]e don't yet understand why BEG diets are affecting some dogs." This is false because there is no valid scientific evidence that " $B E G$ " diets are "affecting" some dogs (i.e., causing them to develop DCM).
c. Diet-Associated DCM: Research Update, Sep. 3, 2021. https://vetnutrition.tufts.edu/2021/09/diet-associated-dem-research-update/) (last visited Feb. 2, 2024).
- "In 2018, the [FDA] published an alert that they were investigating a potential connection between diet and DCM." This is misleading because, as Dr. Freeman knew, the FDA was only investigating this issue because of fraud committed by Dr. Freeman herself.
- "[Diet-associated DCM] can improve significantly when the diet is changed." This is misleading because any purported scientific evidence that dogs "can improve significantly when the diet is changed" also included, in addition to any diet change, the commencement of common, well-established methods of treating DCM in dogs such as medication and taurine supplementation.
- This article also included numerous materially misleading mischaracterizations of and omissions concerning specific DCM studies conducted by Dr. Freeman and the other Defendants. These types of mischaracterizations are discussed in greater detail below, in the section of this Complaint concerning scientific misinformation.
d. Diet-Associated Dilated Cardiomyopathy: The Cause Is Not Yet Known But It Hasn't Gone Away, Feb. 7, 2023. See https://vetnutrition.tufts.edu/2023/02/diet-associated-dilated-cardiomyopathy-the-cause-is-not-yet-known-but-it-hasnt-goneaway/?fbclid=IwAR2n6DXk73oIw6s7va96uOSphmp6e7Hn9nt1TG9I3F6gyU OGR-a-HMYzERQ) (last visited Feb. 2, 2024).
- "[M]ost owners I've worked with thought they were feeding their dog the best food possible, only to find out that the diet may have contributed to their dogs' heart disease." This is false because even at this point, nearly five years after the FDA launched its investigation, there was still no evidence that " $B E G$ " diets or any other similar type of dog food increase the risk of DCM.
- "Associated diets - not just grain free." This statement is false for several reasons. First, because it implies that there already is evidence that grainfree diets have been associated with DCM, when in reality there is no valid scientific evidence that in a properly statistically balanced sample, dogs with DCM are more likely to be eating grain-free diets. Second, it implies that there is also evidence that " $B$ " and " $E$ " diets are "associated" with DCM, when in reality there is no valid scientific evidence of that either.
- "[I]t was identified early on that these dogs were eating diets with similar properties." This is misleading because the purported "identification" of dogs as eating such diets was impacted by Drs. Freeman's and Adin's cherry picking of data, which in turn, led the FDA to structure its alert and investigation based on that data, causing further reporting of dogs with DCM who ate grain free or pulse intensive diets, without similarly motivating reporting of dogs who ate other diets.
- "Research has now shown that these diets ... are commonly grain-free commercial dry diets that contain pulses and, to a lesser extent, potatoes or sweet potatoes." This is misleading because the perception that such dogs ate such diets was manipulated by Dr. Freeman's cherry picking of data, which in turn, led the FDA to structure its alert and investigation based on that data, causing further reporting of dogs with DCM who ate grain free or pulse intensive diets, without similarly motivating reporting of dogs who ate other diets.
- "Many have linked diet-associated DCM with grain-free diets. In fact, it appears to be more closely associated with diets containing pulses, rather than with the presence or absence of grains in a diet." This is misleading, first, because the "many" consist largely of Defendant Freeman and her co-conspirators, and moreover, because the perception that DCMpositive dogs were meaningfully "associated" or "linked" with these dietary qualities was created by Dr. Freeman's cherry picking of data provided to the FDA, which in turn, led the FDA to structure its alert and investigation based on that data, causing further reporting of dogs with DCM who ate grain free or pulse intensive diets, without similarly motivating reporting of dogs who ate other diets.
- "Most dogs with diet-associated DCM have been eating non-traditional [BEG] diets for over one year." This statement is false because there is no sound evidence that non-traditional or "BEG" diets are associated with higher rates of canine DCM.
- "Dogs with less severe stages of the disease [DCM] have similar improvements in heart size and function after diet change." This statement is misleading because any such "improvements" documented in the scholarly evidence also included, in addition to any diet change, the commencement of common, well-established methods of treating DCM in dogs.
- "The FDA's data and the research evidence published thus far supports an association between non-traditional diets and DCM." This statement is
misleading because neither the FDA's data nor any other published scientific evidence suggests a relation between non-traditional diets and DCM.
- "Cardiologists continue to diagnose dogs with diet-associated DCM, especially in regions where non-traditional diets are common." This statement is false because there is no valid scientific evidence that DCM is associated with any specific area of the country or with any kind of diet.

155. Defendant Hill's has treated Dr. Freeman's blog-writing as if it constituted peerreviewed science, even though her posts are not studies and were not subjected to any journal's peer review process. This type of self-citation (whereby one member of an unlawful enterprise cites to false statements made by another member of the enterprise) is a common tactic in coordinated scientific misinformation campaigns. See, e.g., Cailin O'Connor and James Owen Weatherall, The Misinformation Age: How False Beliefs Spread Yale University Press (2018).
156. For instance, as of February 2024, the Hill's website was still linking to the first Petfoodology article for evidence that "trends" such as "grain-free, raw, vegan, farm-to-table, plant-based, or homemade" dog foods can "pose health risks for dogs." Dr. Laci Schaible, Alternative Proteins in Dog Food: Salmon, Duck, Turkey \& More, Jan. 31, 2022 (see https://www.hillspet.com/dog-care/nutrition-feeding/alternative-protein-salmon-turkey-duck-dog-foods) (last visited Feb. 2, 2024)) (see hyperlink titled "health risks to dogs"). In reality, for the reasons discussed above, Dr. Freeman's article does not include any evidence supporting the assertion that any of these types of diets pose health risks for dogs.
157. MAF also has posts in consumer-friendly language about "diet associated DCM" on its own website. That page quotes Dr. Stern as saying, "Home-cooked diets have been
implicated in this problem, as well as small batch, boutique dog foods." (https://www.morrisanimalfoundation.org/article/understanding-dietary-taurine-and-heart-disease-dogs).

## False Statements Made to the Veterinary Community About "BEG" Diets and DCM

158. Although Defendants knowingly made a host of false statements about DCM to the lay public through popular mainstream media outlets, blogs, and websites, Defendants made even more of them through channels designed to reach veterinary professionals. Consistent with Hill's broader strategy of marketing its products through veterinarians, this concerted campaign of misinformation was intended to influence the beliefs (and buying habits) of dog-owners by shaping the beliefs of the veterinary caregivers those individuals trusted and relied upon for expert advice.
159. The most notable forum for these false statements has been scholarly journals. These publications are considered highly credible and are widely read by veterinary professionals who wish to stay abreast of the latest evidence on issues within their specialties. As such, false statements that appear in these journals can be particularly impactful within the veterinary community.
160. These articles have particular impact as sales influencers for Hill's because of its long-standing marketing strategy of reaching customers through the information and education that it gives to their veterinarians. See IIII 3, 11, 32-49, supra. As such, these articles, all of which were authored or co-authored by one or more of the Veterinarian Defendants, fanned the flames of hysteria that were ignited by the FDA's investigation.
161. To date, Defendants have already written at least fifteen different journal articles featuring intentionally false or misleading statements about DCM. For the purposes of this lawsuit, the most important one was published by in the December 2018 edition of JAVMA, the most
widely-read veterinary journal in the world. This article was co-authored by all of Defendants Freeman, Adin, Stern, Rush, and Fries and was entitled Diet-Associated Dilated Cardiomyopathy in Dogs: What Do We Know? J. Am. Vet. Med. Ass'n, 253:11 (Dec. 1, 2018) (available at https://avmajournals.avma.org/view/journals/javma/253/11/javma.253.11.1390.xml (last visited Feb. 2, 2024)).
162. This particular article was particularly important to the Defendants' DCM scheme for two reasons. First, it was particularly popular and impactful. Not only is JAVMA the most widely read veterinary journal in the world, but according to the journal's own website, the article is actually the single most widely read article the journal has ever published. It appeared only a few months after the FDA announced its investigation, when the issue of DCM was at the height of its popularity and most veterinary professionals were still grappling to form their beliefs about the subject. An article authored by five different, well-known nutrition and cardiology professors (three of whom the FDA had already identified as key consultants in its investigation) and purporting to summarize everything those experts "know" about DCM was exactly what the veterinary community wanted at the time.
163. The second reason the JAVMA article was so important to Defendants' scheme is, amazingly, it was never peer-reviewed. As such, it allowed Defendants to make a host of false statements about the evidentiary record without fear that they would be caught and corrected by independent reviewers.
164. Like all credible peer-reviewed journals, JAVMA's editorial policies require peerreview of all fact-based evidence review articles that the journal is considering publishing (JAVMA calls these "Viewpoint" articles). On the other hand, those policies do not require peer-review of opinion-based op-ed articles (what JAVMA calls "Commentary" articles).
165. Defendants' DCM article was an evidence review, not an op-ed. It is focused entirely on the factual issue of what was "known" about diet-associated DCM, not ethical issues or other matters of personal opinion. Nevertheless, AVMA and its then-Editor-in-Chief Kurt Matushek decided to frame and publish the article as a "Commentary." As such, the squarely factfocused article was allowed to evade the peer-review process and the assortment of speculation and false statements of fact contained therein escaped correction.
166. In July 2019 a retraction request was submitted to the journal detailing the shortcomings of the article's presentation, and co-signed by hundreds of veterinarians, scientists, human medical providers, representatives of grain-free pet food companies, and individual petowners. The article, however, was not retracted.
167. A non-exhaustive list of false and materially misleading statements from the $J A V M A$ article follows, along with short explanations about each.

- "Over the past few years, an increasing number of DCM cases involving dogs appear to have been related to diet." This statement is false because in reality there was no evidence that DCM cases relating to diet had been increasing at this time. (Such evidence necessarily must exist for this statement to be true, notwithstanding the use of the qualifier "appear to have been.") In fact, thorough, peer-reviewed research focusing specifically on the rate of DCM diagnosis during this time period found no evidence of an increasing number of cases. See https://www.frontiersin.org/articles/10.3389/fanim.2022.846227/full (last visited Feb, 2, 2024).
- "[T]he apparent link between BEG diets and DCM may be due to the grain-free nature of these diets ... possible nutritional imbalances, or inadvertent inclusion of toxic dietary components. Or, the apparent association may be spurious." This statement is false because it necessarily implies that there is some scientific evidence of a meaningful link between " $B E G$ " diets and DCM incidence rates when in reality there is no such evidence. (Such evidence necessarily must exist for this statement to be true, notwithstanding the use of the limp qualifier "apparent.")
- "The recent announcement from the US FDA alerting pet owners and veterinarians about reports of DCM in dogs eating pet foods containing peas, lentils, other legume seeds, or potatoes as main ingredients has raised concerns among the pet-owning public." This statement is materially misleading because the authors knew that the FDA's investigation was prompted entirely by their cherry-picking scheme. Had the cherry-picking scheme been disclosed, no concerns would have been raised.
- "DCM in some dogs without any apparent taurine deficiency appears to be reversible with a change in diet, with or without taurine supplementation." This statement is false because defendants have not produced any valid scientific evidence that switching from a " $B E G$ " diet to a non-" $B E G$ " diet reverses $D C M$ unless taurine supplementation (a common treatment for DCM) accompanies the diet change. (Such
evidence necessarily must exist for this statement to be true, notwithstanding the use of the qualifier "appears to be.")
- " $[R]$ ecovery of cardiac function has been observed in some dogs following a change in diet, with or without taurine supplementation." This statement is false because Defendants have not pointed to any valid scientific evidence that switching from a "BEG" diet to a non-" $B E G$ " diet causes recovery of cardiac function unless taurine supplementation (a common treatment for DCM) accompanies the diet change. (Such evidence necessarily must exist for this statement to be true, notwithstanding the use of the qualifier "appears to be.")
- "Veterinary cardiologists examining dogs with DCM were able to make an association with BEG diets because they were obtaining a diet history." This statement is false because there is no valid scientific based evidence of an association between " $B E G$ " diets and the increased incidence rate of $D C M$.
- "Importantly, although there appears to be an association between DCM and feeding BEG, vegetarian, vegan, or home-prepared diets in dogs, a cause-and-effect relationship has not been proven." This statement is false because there is no valid scientific evidence of an association) between " $B E G$ " diets and the increased incidence rate of $D C M$.

A longer and more thorough list of the false and materially misleading statements set forth in the article (along with additional context) can be found
in Mr. Schulof's retraction demand letter. See
$\underline{\text { https://static1.squarespace.com/static/5cf53f8a8477da }}$
$\underline{000183 d 794 / t / 5 d 3 b 204 b b e f b 3 a 0001075120 / 1564156090282 / S c h u l o f+L t r+t o+~}$

Matushek + re + Retraction $+7+26+19$.pdf (last visited Feb. 2, 2024)
168. Tellingly, the Defendants used the expression "BEG diets" at least 17 times in their first JAVMA article on this issue. At the time, that catchy acronym, which describes all pet foods sold in America with the exception of those made by Hill's and three other companies, had not been used by the FDA or in the peer-reviewed literature. One of the Defendants just made it up a few months earlier. But in an article purporting to describe all that the scientific community supposedly "knew" about the issue of diet-associated DCM, the term was used by the Defendants at least 17 different times.
169. Another critical study, ${ }^{11}$ described below and supra at II $82-84$, co-authored by Defendant Stern makes clear how the research was meant to benefit legacy companies like Hill's, while harming all others.
170. This study divided dog food products being sold in America into two categories, "Traditional Diets" and "Non-Traditional Diets," describing the groups as follows: "Traditional diets (TD) were required to meet all of the following criteria: kibble diets which are graininclusive, not including legumes or potatoes in the top 5 ingredients listed, and be produced by a pet food company with $>\$ 2$ billion in global sales for 2018. Non-traditional diets (NTD) had to meet one of the following criteria: kibble or raw food diet which is grain free, includes legumes or

11 Ontiveros ES, Whelchel BD, Yu J, Kaplan JL, Sharpe AN, Fousse SL, Crofton AE, Fascetti AJ, Stern JA, Development of plasma and whole blood taurine reference ranges and identification of dietary features associated with taurine deficiency and dilated cardiomyopathy in golden retrievers: A prospective, observational study, PLoS One, 15;15(5) (2020 May) https://doi.org/10.1371/journal.pone. 0233206 (last visited Feb. 2, 2024).
potatoes in the ingredient list, or is manufactured by a small pet food company with <\$1 billion in global sales for 2018."
171. Looking at these two categories and the required criteria for each side by side ${ }^{12}$ :

## "Traditional Diets"

## Required to meet ALL of the following criteria:

1. kibble diets which are grain-inclusive
2. does not include legumes or potatoes in the top 5 ingredients
3. produced by a pet food company with $>\$ 2$ billion in global sales for 2018.
"Non-traditional Diets"

Required to meet ONLY ONE of the following criteria:

1. kibble or raw food diet which is grain free
2. includes legumes or potatoes

ANYWHERE in the ingredient list
3. produced by a pet food company
with < $\$ 1$ billion in global sales for 2018.
172. The only pet food manufacturers that have annual sales greater than $\$ 2$ billion are the top four in the country, including Defendant Hill's. The study offers no reason why companies with less than $\$ 2$ billion in revenues should be considered "non-traditional." The only explanation attempted for the insinuation that such products are in any way riskier than those made by Hill's is that it is "supported by the FDA data [which was skewed by Defendants' deception] and the authors clinical experience that there is a relative absence of cases from large companies, particularly when compared to market share of the individual diets, where the most abundant cases reported were from companies with very small market share," which is anecdotal and nonspecific.

[^0]The gap between the $\$ 2$ billion minimum for traditional diets and $\$ 1$ billion maximum for nontraditional diets is unexplained and seems designed to draw a clear line between the legacy companies and the rest of the industry.
173. After publication, this article was the subject of a lengthy "Expression of Concern" written by the editors of the journal in which it was published. Such rebukes are highly uncommon in professional science. The article was not retracted as a result of the rebuke; however, a 593word cautionary statement describing undisclosed financial conflicts (including Defendant MMI and Defendant Hill's) and seven separate categories of methodology irregularity, faulty reasoning, and other misconduct was appended to the original version. In response to the statement of concern, it has still not been retracted but, years after publication, the authors filed a correction which partially addressed the concerns of their peers.
174. In addition to the misconduct highlighted in the "Expression of Concern," nothing alerted readers of this research that the University of California - Davis had received hundreds of thousands of dollars from Defendant Hill's and/or Defendant MAF in the years leading up to the publication.
175. Moreover, even after revision, the conflicts statement still did not disclose that, at the time of publication, Stern was a member of the Morris Animal Foundation's Small Animal Scientific Advisory Board. (Subsequently, in 2021, MAF divided that panel into a Canine Scientific Advisory Board and a Feline Scientific Advisory Board and made Dr. Stern the chairman of each of them.)
176. Moreover, on information and belief, as described supra at Paragraph IIII 80-84, on information and belief, this study likely received support through the Morris Animal Foundation's

Golden Retriever Life Study program. If it did, its failure to disclose that is yet another attempt to hide the extent of Hill's financial influence over the work.
177. Defendants' campaign of writing DCM papers for academic journals and filling them with false statements about "BEG" diets has continued unabated since the FDA's announcement of its investigation. (Indeed, Dr. Freeman seems to have devoted the entirety of her professional life to this one project; since 2018 she has authored or co-authored at least eleven different journal articles about this one subject.) In total, Defendants have authored or coauthored at least fifteen different journal articles about diet and DCM since 2018.
178. As catalogued in greater detail below, these studies have served as vehicles for claims about "BEG" diets and DCM that are rendered demonstrably false by the revelation of the Defendants' FDA cherry-picking scheme. But that is not the only way that Defendants have used this sizable body of research to mislead the public about "BEG" diets and DCM.
179. Perhaps even more importantly, the Defendants have misrepresented, in a very specific, fundamental, and impactful way, what it is that these studies show. In essence, while the Defendants claim that these studies are evidence that "BEG" diets are "associated" with DCM, in truth they are not. This is not to say that the methods are shaky, the data are thin, or that the studies are otherwise flawed (though in some instances they are). Rather, the studies simply do not reach the conclusion that the Defendants deliberately create the impression they do.

Understanding Why There is No Evidence<br>Of An Association Between "BEG" Diets and DCM

180. While it is true that the DCM studies published by the Veterinarian Defendants all deal in one way or another with "BEG" diets (or some subset thereof) and the canine heart, none of them reaches any of the key findings that would provide evidentiary support for Defendants' oft-repeated (but baseless) claim that "BEG" diets are or appear to be "associated" with DCM.

That is to say, even after five years of continuous work trying to prove the theory that "BEG" diets cause or exacerbate DCM, Defendants still have not adduced a scintilla of evidence supporting either of the following assertions:
a. "BEG" diets are correlated with higher incidence rates of canine DCM than non-"BEG" diets. (Or, in layman's terms, dogs fed "BEG" diets are more likely to get DCM than dogs fed non-"BEG" diets.)
b. Switching dogs with DCM from a "BEG" diet to a non-"BEG" diet is correlated with longer lifespan, increased disease eradication, symptom mitigation, or any other clinically significant health improvement, as compared with continuing to feed a "BEG" diet, unless the diet change is accompanied by one or more well-established treatments for DCM, such as taurine supplementation. (Or, in layman's terms, switching a dog from a "BEG" diet to a non-"BEG" diet is likely to make DCM better.)
181. In other words, Defendants have methodically built-up a collection of studies that can be fairly said to at least loosely "involve" or "concern" DCM and "BEG" diets (in the sense that both of the phenomena are at least discussed in the study) without demonstrating that the two variables are correlated, causally linked, or otherwise "associated" in any scientifically significant way. As such, characterizing any (or all) of these studies as evidence that "BEG" diets are associated with DCM just isn't true.
182. Defendants' propaganda campaign has been so successful because a cursory review of the titles and abstracts of these papers would naturally lead a reader to believe that there must be some correlation between DCM and "BEG" diets, or grain-free diets or some other subset of smaller makers' products.
183. For instance, last year, Dr. Adin and colleagues published a paper entitled, Association of Diet with Clinical Outcomes in Dogs with Dilated Cardiomyopathy and Heart Failure. ${ }^{13}$ The very title of the paper seems to reach a conclusion. In their study, the authors found that dogs with DCM that had been eating grain-free diets experienced better clinical outcomes (including a longer lifespan) after a "diet change." But this interpretation is rhetorical sleight of hand, utilizing readers' confirmation bias: as a matter of pure logic, the paper is susceptible to very different interpretations.
184. At first blush, the study appears to be saying that dogs with DCM that were switched from "BEG" diets to non-"BEG" diets lived longer than dogs that were not switched. What it actually shows is that dogs with DCM that were switched from "BEG" diets to non-"BEG" diets lived longer than dogs with DCM that never ate "BEG" diets in the first place. That simply isn't evidence of an association between "BEG" diets and poorer clinical outcomes. It is also consistent with the hypothesis that "BEG" diets and better for dogs, so that those with exposure to them for part of their lives live longer than dogs fed the big makers' traditional diets for their whole lifetime. It is even consistent with the hypothesis that any change in diet is beneficial and the mere fact of variation yields benefits. The study design does not exclude one of these hypotheses, or even provide a reason to prefer one over another.
185. This is just one example of a broader pattern of deception that applies to every one of the DCM studies published by the Veterinarian Defendants in the wake of the FDA's investigation. None of them come to a conclusion that "BEG" diets, or any specific sub-category of them, is correlated with a worse clinical outcome for dogs, or causes DCM: either the studies

13 Walker AL, et al., Association of diet with clinical outcomes in dogs with dilated cardiomyopathy and congestive heart failure, J. Vet. Cardiol., 40:99-109 (Apr. 2022) (available at https://pubmed.ncbi.nlm.nih.gov/33741312/ (last visited Feb. 2, 2024)).
do not find this because the data do not support that conclusion, or they do not find this because their designs do not allow the studies to exclude other hypotheses.
186. Due to four specific forms of misrepresentation, abstracts or summaries of these studies position them as to one degree or another to support the assertion that "BEG" diets are "associated" with DCM. Review of the full studies refutes this positioning in each case.
187. First: In several of their studies, the Veterinarian Defendants reported that dogs with DCM eating "BEG" diets experienced better clinical outcomes when they were switched to different diets, but only because the dogs were also given supplemental taurine, a widely-used and very effective treatment for nutritionally-mediated DCM. If lung cancer rates go down when people quit smoking and stop wearing hats, this does not show an association between hats and lung cancer.
188. Second: Defendants repeatedly deploy a misleading use of the expression "diet change." The Veterinarian Defendants have published several studies finding that dogs with DCM being fed "BEG" diets live somewhat longer or otherwise do better after a "diet change." But in these cases the dogs weren't found to live longer than another group that continued eating "BEG" diets. They were only found to live longer than those that were never fed "BEG" diets in the first place. As discussed above, this is equally consistent with the hypotheses that part-life "BEG" diets are beneficial, or even that any diet change is beneficial. There are practicable experiment designs that would not have this infirmity, but none of the Veterinarian Defendants have opted for them.
189. Third: some studies find a correlation between "BEG" diets and some kind of subclinical cardiac measurement. None of these markers is DCM, and none are proven to be correlated with shorter lifespan, symptoms, or any other measure of disease progression. It is
materially false and misleading to mischaracterizing those findings as evidence of a correlation between "BEG" diets and the disease itself. In these cases, "BEG" diets weren't associated with worse symptoms, higher DCM diagnosis rates, shorter lifespans, or anything else of clinical significance. They were only associated with subclinical measurements that don't rise to the level of actual disease.
190. Moreover, studies that only measure subclinical markers are particularly susceptible to cherry-picking. A researcher can monitor a dozen different biomarkers, but only report the one that winds up supporting the hoped-for outcome. This is spurious causation, the same phenomenon that causes clusters of all-heads or all-tails when a bucket of coins is dumped out. The way to avoid spurious causation is to pre-define the outcome that is being examined; clinical outcomes are effectively pre-defined because they are few: whether dogs die younger, or develop a disease with a clear diagnosis. Subclinical markets offer a profusion of possible correlations, so that a researcher can find a correlation by data-mining and retrofit the hypothesis.
191. Fourth: Veterinarian Defendants repeatedly backdoored misleading "incidence data" into studies not aimed at evaluating incidence rates. That is, even sophisticated readers will tend to be influenced by the number of dogs in any study that have DCM at the start of a study and ate a "BEG" diet. But this is not actually an examined variable in any of these studies. No study has even attempted to find prevalence in the population, and DCM has other causes. Because these are clinical studies, the sample is produced when pet owners bring their dogs to their veterinarian. The publicity produced by the FDA investigation alone would be expected to result in more owners whose dogs ate "BEG" diets seeking veterinary care then owners who fed their dogs non-"BEG" diets. Other confounding factors include higher incomes among "BEG" diets' customer base and higher rates of veterinary care, so that a clinical study population would be expected to start with
a disproportionate number of BEG-eating dogs even if the rated of DCM are completely proportional across diets.
192. To use an accessible analogy, if there were a disinformation campaign that (choosing an absurd example) water towers caused cancer, we would expect a flood of people who lived near water towers to demand cancer screenings. Some of them would, of course, have cancer, and because of the flood of requests for testing by only those living near water towers, the incidence would appear disproportionate. The result could create the logically unsupported impression of a correlation. In this extreme example, most good faith readers would understand the flaw, and only the unwary or the unscrupulous would misrepresent the incidence data as proving a correlation.
193. All four of these tactics had the same intended effect: to misleadingly suggest that a study constitutes evidence of an association between "BEG" diets and DCM when in reality it does not. And the Defendants employed at least one of the tactics in every single DCM study they have published since the FDA announced its investigation. Together they explain why the body of veterinary literature which has failed to show a correlation between DCM and "BEG" diets or any subset of them, and has failed to find a correlation between "BEG" diets and worse clinical outcomes, has nonetheless been repeatedly and successfully misrepresented as establishing those associations.
194. As explained below, Defendants and others affiliated with them have repeatedly used this sleight-of-hand to consistently mischaracterize the state of the evidence regarding DCM in mainstream media outlets, academic articles, blogs and other websites, conferences, marketing materials, and social media groups.

False Statements Describing the Findings
In the Veterinarian Defendants' DCM Research: The Journal Propaganda Campaign
195. One obvious way that Defendants have used their work to mislead the public is by building on the false foundation that they themselves laid: the FDA investigation. The vast majority of their papers begin by stating that the FDA has issued a "warning" about or is "investigating" a possible connection between diet and DCM. But none of them disclose that it was Defendants Freeman and Adin's own improper cherry-picking that led the FDA to frame its investigation the way that it did, with a direct focus on grain free diets.
196. A list of these papers follows, with specific explanations about the misconduct, false statements, and irregularities present in each: ${ }^{14}$
a. Kaplan JL, Stern JA, Fascetti AJ, et al., Taurine deficiency and dilated cardiomyopathy in golden retrievers fed commercial diets. PLoS One.2018, 13(12) (2018): doi: 10.1371/journal.pone. 0209112 (https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0209112 (last visited Feb. 2, 2024)).

- Defendant(s): Josh Stern.
- Propagated Unwarranted Public Concern About Grain Free Diets as Follows:

1. First, as does almost every other study in this area, this article references a purported increase in reporting of diet-related DCM cases to the FDA without noting that the FDA's investigation was prompted and focused by cherry-picked case reports submitted by the authors themselves. (Hereinafter, in describing articles, statements that the FDA had an increase in reported instances, issued an alert about and/or is investigating the relationship of DCM and diets that are grain-free, high in pulses or having similar characteristics, that do not disclose that Defendants Adin's and Freeman's cherry-picking of submitted cases improperly gave rise

14 Many of these papers also suffer from other scientific infirmities, including methodological irregularities, sample sizes so small as to render them useless as sources for valid inferences, data manipulation, and concealment or obfuscation of financial conflicts of interest.
to all of that is referenced as the "FDA Alert Cherry-Picking Omission.")
2. After an "expression of concern" was added to this work by its editors, the authors admitted that "a cause-and-effect relationship [between DCM and grain free diets] cannot be proven," and that "Future, controlled, prospective studies of larger sample size are needed to determine if the clear associations identified in this manuscript represent a cause-and-effect relationship between DCM, taurine-deficiency, specific ingredients, and grain-free food varieties in general. Without such studies we cannot conclusively define which dietary characteristics are involved with the pathogenesis of this condition." (Emphasis supplied.)

Despite all of that uncertainty, this article helped create a concern in the public mind that such a relationship had been shown and that there was something to be concerned about.
b. Adin D, DeFrancesco TC, Keene B, et al. Echocardiographic phenotype of canine dilated cardiomyopathy differs based on diet type, J Vet Cardiol. 21:1-9 (2019) (https://www.sciencedirect.com/science/article/pii/S1760273418300882 (last visited Feb. 2, 2024)).

- Defendant(s): Darcy Adin
- Propagated Unwarranted Public Concern About Grain Free Diets as Follows

1. States that " $[t]$ his study was initiated because of $\ldots$ an observation that many of these dogs were eating specialty meat-based grain-free (GF) diets," repeating this assertion as fact. This is false because there is no scientific evidence that dogs with DCM are more likely to be eating these types of diets.
2. In the conclusion of this study, the authors concede that "Dietaryinduced DCM associated with some GF diets remains unproven but should be considered a potential underlying cause or contributor in dogs with DCM, regardless of signalment." (Emphasis supplied.)

Again, the scientists have acknowledged that they have not proven even a correlation, let alone causation, but the title and abstract suggest such an association and assist in keeping momentum for a belief that such a connection existed.
c. Adin D, Freeman LM, Stepien R, et al., Effect of diet type on circulating taurine concentrations, cardiac biomarkers, and echocardiograms in four dog breeds, J Vet Intern Med., 35:771-779(2021) (https://onlinelibrary.wiley.com/doi/full/10.1111/jvim.16075 (last visited Feb. 2, 2024)).

- Defendant(s): Darcy Adin, Lisa Freeman, Josh Stern
- Propagated Unwarranted Public Concern About Non-Traditional Diets as Follows:

1. Made use of the FDA Alert Cherry-Picking Omission (defined supra) to suggest that there had been a significant correlation between DCM cases and consumption of non-traditional diets.
2. Following the theme of other studies above, this study stated that "The correct characterization of diets that are associated with nDCM is unknown because the cause has not yet been identified." It also concedes that "Alternatively, it remains possible that this apparent association [between grain free diets and DCM] is confounded by other factors."

Even in a study that by their admission concedes that the cause is unknown and has not been identified, the authors refer to an "apparent association" that two of the three authors know was created by their own effort to propagandize the FDA. However, it none-the-less kept going an unwarranted panic about all nontraditional diets.
d. Freid KJ, Freeman LM, Rush JE, et al., Retrospective study of dilated cardiomyopathy in dogs, J Vet Intern Med. 35:58-67 (2021) (https://onlinelibrary.wiley.com/doi/full/10.1111/jvim. 15972 (last visited Feb. 2, 2024)).

- Defendant(s): Lisa Freeman, John Rush.
- Propagated Unwarranted Public Concern About Non-Traditional Diets as Follows:

1. Made use of the FDA Alert Cherry-Picking Omission to suggest that there had been a significant correlation between DCM cases and consumption of non-traditional diets.
2. This study states that "For dogs that had a follow-up echocardiogram, dogs in the nontraditional diet group that had their diets changed were significantly more likely to have received taurine (15/23) compared to dogs in the nontraditional diet group that did not have their diets changed $(4 / 13 ; P=.05)$ and compared
to the traditional diet group $(2 / 9 ; P=.03)$. ." The study also states that "Dogs that received taurine supplementation during the course of their disease had a significantly longer survival time than did dogs not receiving taurine supplementation." It adds that "It is also possible that changes in echocardiographic measurements in our study and in the 2 previous studies are unrelated to diet and could be the result of other factors, such as medications or genetic factors." It goes on to state that "although these retrospective data allow for exploration of hypotheses of associations between diet and DCM, a causal relationship cannot be determined. In addition, evaluating a large number of variables with a relatively small sample size increases the risk of type 1 statistical error. Additional research (e.g., larger retrospective studies as well as laboratory and prospective studies) is needed to definitely identify a link and better understand this issue."

Despite all of that, in its conclusion, it says, "Our results are consistent with the results of 2 previous studies suggesting that in dogs with DCM eating nontraditional diets, diet change can be associated with significant improvement in some echocardiographic measurements. In addition, dogs eating nontraditional diets that had their diets changed had a significantly longer survival time compared with those that did not have their diets changed."

By having that as a main conclusion without having adequate support for such a conclusion, it again maintained the unwarranted public impression that the vast amorphous category of "nontraditional diets" should be avoided.
e. Smith CE, Parnell LD, Lai C-Q, Rush JE, Freeman LM. Investigation of diets associated with dilated cardiomyopathy in dogs using foodomics analysis, Investigation of diets associated with dilated cardiomyopathy in dogs using foodomics analysis, Sci Rep., 11, 15881 (Aug. 5, 2021) (https://pubmed.ncbi.nlm.nih.gov/34354102/ (last visited Feb. 2, 2024)).

- Defendant(s): Lisa Freeman, John Rush
- Propagated Unwarranted Public Concern About Non-Traditional Diets as Follows:

1. In this study, Defendants looked for common diet/nutrition qualities among the foods most commonly eaten in the DCM cases reported to the FDA. But the DCM cases reported to the FDA were overwhelmingly the Veterinarians Defendants' own cherry-picked set, selected specifically to create the impression that non-traditional diets were associated with DCM. The sample therefore was known by Defendants Rush and Freeman to be skewed by design. Because
this study used a deliberately loaded sample, it served to further the propaganda campaign that non-traditional diets caused DCM.
f. Freeman L, Rush J, Adin D, et al. Prospective study of dilated cardiomyopathy in dogs eating non-traditional or traditional diets and in dogs with subclinical cardiac abnormalities, J. Vet. Intern. Med., 36:451-463 (2022) (https://onlinelibrary.wiley.com/doi/10.1111/jvim. 16397 (last visited Feb. 2, 2024)).

- Defendant(s): Darcy Adin, John Rush, Lisa Freeman
- Propagated Unwarranted Public Concern About Non-Traditional Diets as Follows:

1. Made use of the FDA Alert Cherry-Picking Omission to suggest that there had been a significant correlation between DCM cases and consumption of non-traditional diets.
2. Reached the conclusion that that "Dogs with DCM or [sub-clinical abnormalities] previously eating [nontraditional diets] had small, yet significant improvements in echocardiographic parameters after diet changes." However, this result does not compare worse clinical outcome for non-traditional diets to traditional diets, as described in IIII 187-190, above.
3. In this study, the dogs with DCM eating so-called "nontraditional diets" at baseline lived, on average, more than three times longer than dogs with DCM eating so-called "traditional diets." The study further stated that "[a]fter adjusting for age, CHF, arrhythmia, intervention diet, hs-cTnI, and LA : Ao, diet group still was not significantly associated with survival time." (Emphasis supplied.) In other words, the actual results refuted the hypothesis of worse clinical outcome associated with a non-traditional diet. But the Veterinarian Defendants authoring this paper did not put forward this finding as having clinical importance.
4. Defendants acknowledge, as they must, that their study included only $15 \%$ (9) dogs on traditional diets, which "made analysis of the data more challenging, especially for within-group comparisons." In fact, this is the smuggling-in of incidence data described at II 191 above.
5. Moreover, this study did not consider and dogs that were on nontraditional diets at the outset of the study and did not change to a traditional diet, as described at TIII 184, 188 above. Thus, it cannot be assessed what was the impact of changing diet and what was the result of other post-diagnosis changes such as the prescription of medicine.

Despite their caveats above, Defendants again skewed the description and presentation of scientific results to serve the propaganda campaign suggesting that non-traditional diets were unsafe.
g. Haimovitz D, Vereb M, Freeman L, et al. Effect of diet change in healthy dogs with subclinical cardiac biomarkers or echocardiographic abnormalities, J. Vet. Intern Med., 36:1057-1065 (2022) (https://onlinelibrary.wiley.com/doi/10.1111/jvim.16416 (last visited Feb. 2, 2024)).

- Defendant(s): Lisa Freeman, John Rush, Darcy Adin
- Propagated Unwarranted Public Concern About Non-Traditional Diets as Follows:

1. Made use of the FDA Alert Cherry-Picking Omission to suggest that there had been a significant correlation between DCM cases and consumption of non-traditional diets.
2. This study acknowledged that "Small sample size and the limited number of breeds studied limit extrapolation to a larger canine population."

Nonetheless, the repetition of their fearmongering kept Defendants' implied message, that nontraditional diets were unsafe, in the public mind.
h. Karp KI, Freeman LM, Rush JE, et al., Dilated cardiomyopathy in cats: Survey of veterinary cardiologists and retrospective evaluation of a possible association with diet, J. Vet. Cardiol., 39: 22-34 (Feb. 2022). (See https://www.sciencedirect.com/science/article/pii/S1760273421001259 (last visited Feb. 2, 2024)).

- Defendant(s): John Rush, Lisa Freeman
- Propagated Unwarranted Public Concern About Non-Traditional Diets as Follows:

1. Stated that "[s]ince 2014, the United States Food and Drug Administration (FDA) has received reports of dilated cardiomyopathy (DCM) in pets with a potential link to certain diets. Many of the cases had been fed diets which were grain-free or contained pulses (e.g. peas, chickpeas and lentils), and to a lesser extent, potatoes. As of September 2020, more than 1100 dogs with DCM had been reported to the FDA." This statement is misleading because Defendants failed to disclose that the FDA's investigation was prompted by their own cherry-picking scheme.
2. This study is not about dogs and has no applicability to dogs. The biology of dogs and cats in this regard are highly dissimilar. Veterinarian Defendants Rush and Freeman referenced the FDA investigation for no apparent purpose except to further highlight it to the veterinary community.
i. Walker AL, DeFrancesco TC, Bonagura JD, et al., Association of diet with clinical outcomes in dogs with dilated cardiomyopathy and congestive heart failure, J. Vet. Cardiol., 40:99-109
(Apr.
2022) 

(https://www.sciencedirect.com/science/article/pii/S1760273421000199?via\%3Dihub (last visited Feb. 2, 2024)).

- Defendant(s): Darcy Adin
- Propagated Unwarranted Public Concern About Non-Traditional Diets as Follows:

1. In this study taurine supplements were given to $70 \%$ of the previously grain free dogs, but only one of the previously grain eating dogs, which means that the reason the previously grain free dogs improved could have been due to taurine, not diet change, as described at II 187 above The study acknowledged, "while taurine deficiency was present in a small minority of the pGF dogs (10.7\%), the majority of these dogs (30/43, 70\%) were prescribed taurine supplementation as part of their therapy. A study of diet change plus taurine supplementation cannot prove that the diet change alone is associated with any independent variable, for the reasons stated at $\mathbb{I}$ 187, above.

None-the-less the overwhelming tone of this article was to further Defendants' propaganda campaign.
j. Adin DB, Haimovitz D, Freeman LM, Rush JE, Untargeted global metabolomic profiling of healthy dogs based on grain-inclusivity of diet and reevaluation after diet change in dogs with subclinical cardiac abnormalities, Am. J. Vet. Res., Vol. 83, Issue 9 (July 25, 2022) (https://avmajournals.avma.org/view/journals/ ajvr/83/9/ajvr.22.03.0054.xml (last visited Feb. 2, 2024)).

- Defendant(s): Darcy Adin, John Rush, Lisa Freeman
- Propagated Unwarranted Public Concern About Non-Traditional Diets as Follows:

1. States that "Investigations into a potential link between consumption of grain-free (GF), high-pulse diets, and the development of a dilated cardiomyopathy (DCM) phenotype in dogs have been
ongoing since 2018." This statement is misleading in three respects. (a) Defendants failed to disclose that the FDA's investigation was prompted by their own cherry-picking scheme. (b) It also fails to disclose that it is the Defendant veterinarians themselves who are conducting the vast majority of the investigations referenced in this statement. (c) It fails to disclose that the series of studies has not established a link between grain free, high pulse diets and DCM.
2. In its conclusion, although it finds that "[m]etabolomic pathway differences between dogs eating GF versus GI diets highlight the important effect of diet in metabolomics analyses" it is forced to admit, immediately thereafter, that "The clinical importance of these differences and how they might relate to cardiac disease in dogs remains undetermined."

Nonetheless, this article by simple repetition reinforces Defendants' propaganda campaignagainst GF diets, a significant subset of the "BEG" category invented by Defendants.

## k. Owens EJ, LeBlanc LL, Freeman LM, Scollan KF, Comparison of echocardiographic measurements and cardiac biomarkers in healthy dog eating non-traditional or traditional diets, J. Vet. Intern. Med. (Dec. 8, 2022) (https://onlinelibrary.wiley.com/doi/full/10.1111/jvim. 16606 (last visited Feb. 2, 2024)).

- Defendant(s): Lisa Freeman
- Propagated Unwarranted Public Concern About Non-Traditional Diets as Follows:

1. Falsely states that "t]here has been an increase in the number of DCM cases associated with diet over the last several years, especially in atypical dog breeds." This statement cites the existence of the FDA's investigation as the sole source of evidentiary support for the statement. In reality, population research suggests that increases in the grain-free component of the " $B E G$ " category of foods was not accompanied by any change in the frequency of DCM diagnosis prior to the FDA investigation. The FDA's investigation is not evidence supporting this assertion because the investigation is based entirely on Defendants' own cherry-picking scheme, among other reasons.
2. States that " $64 \%-95 \%$ of dogs with DCM in 4 recent studies were eating nontraditional diets, suggesting a possible association between DCM and nontraditional foods." This statement expressly relies on incidence data from non-representative samples in
characterizing four other studies, as described above at II 191, above.
3. Like other articles that Defendants drafted, Defendant Freeman here expressly deployed a misleading interpretation of published papers in support of the Defendants' propaganda campaign.
4. Smith CE, Parnell LD, Lai C-Q, et al., Metabolomic profiling in dogs with dilated cardiomyopathy eating non-traditional or traditional diets and in healthy controls, Sci. Rep., 12, 22585 (2022) (https://doi.org/10.1038/s41598-022-26322-8 (last visited Feb. 2, 2024)).

- Defendant(s): John Rush, Lisa Freeman, Darcy Adin.
- Propagated Unwarranted Public Concern About Non-Traditional Diets as Follows:

1. Made use of the FDA Alert Cherry-Picking Omission to suggest that there had been a significant correlation between DCM cases and consumption of non-traditional diets.
2. Despite the caveats below, as Defendants intended, by mere repetition of the supposition of connection, this article contributed to the Defendants' propaganda campaign.

The study itself states all of the following:

- "The cause of this current episode of secondary DCM is unknown ..."; and
- "The sample size was relatively small, especially for dogs with DCM eating T[raditional] diets [T]his limited statistical power for some analyses and prevented analyses of post-intervention changes in the DCM-T group as only two dogs in this group survived to 9 months."
- "Despite ongoing research efforts since the first reports of diet-associated DCM, the causal dietary components and mechanisms have remained elusive. Our results strongly support that underlying mechanisms differ between dietassociated and primary DCM." (Emphasis supplied.)
m. Fischer KE, Rush JE, Freeman LM, Pit bull-type breeds with dilated cardiomyopathy eating nontraditional diets improve after diet change (2015-2022), J. Am. Vet. Med. Assoc., 261(7):1011-1019 (Apr. 14, 2023). (https://pubmed.ncbi.nlm.nih.gov/37059420/ (last visited Feb. 2, 2024)).
- Defendant(s): John Rush, Lisa Freeman
- Propagated Unwarranted Public Concern About Non-Traditional Diets as Follows:

1. Made use of the FDA Alert Cherry-Picking Omission to suggest that there had been a significant correlation between DCM cases and consumption of non-traditional diets.
2. Again, despite the caveats and limitations below, this article, through repetition of purported concerns served to support the Defendants' propaganda campaign.

As the authors of this study concede, "Sample size was also an important limitation of the study since there were only 12 dogs in the traditional diet group and only 4 in the nontraditional diet group that did not change diets after diagnosis." (Emphasis supplied.)

It seems evident that there were simply too few dogs on the nontraditional diet to support a conclusion that it was the diet change that caused the improvement. However, their caveat was not sufficient to counterweigh the panic that this and other articles above were intended to create.
197. Moreover, virtually all of the above articles failed to fully disclose the extent of the funding relationships between the Defendant authors and their universities, on the one hand, and Hill's, MAF and MMI, on the other.
198. Defendants have the extensive financial connections detailed supra at TIII 40-46 and 50-93. But all that they have disclosed about their connections to Hills, MAF or MMI in any of the articles about diet-related DCM at issue in this Complaint, however, is that:

- "Within the past three years ... Dr. Freeman has received research or residency funding from, given sponsored lectures for, or provided professional services to ... Hill's Pet Nutrition....
- On occasion, Dr. Freeman has used the more specific """Within the past three years, Dr. Freeman has ... has given sponsored talks for ... Hill's Pet Nutrition."
- "Dr. Rush has received funding from, given sponsored lectures for, or provided professional services to Aratana Therapeutics, Elanco, Hill's Pet Nutrition,

199. No disclosures of conflict were made by Dr. Stern on any article about diet-related DCM despite his work at UC Davis which receives extensive funding from MAF including through the Golden Retriever Whole Life Study fund, and despite his having served on and even headed MAF scientific advisory boards.
200. No relevant disclosures of conflicts whatsoever were made in articles about dietrelated DCM by Dr. Adin or Dr. Fries.
201. The academic papers outlined above-all authored by the one or more of the Veterinarian Defendants, all fraught with false statements of fact (and many with research misconduct as well), and all "concerning" (but not demonstrating any correlation between) DCM and "BEG" diets-were published in just the past five years. They represent, along with the cherrypicking scheme and the FDA investigation that it induced, an impressively coordinated and focused effort to quickly create the fodder necessary for the third and final component of Defendants' fraudulent plan, one that can only be called a propaganda campaign. In essence, as explained in the next section of this Complaint, the Defendants (and third parties the Defendants paid) conducted a coordinated effort to misrepresent and amplify the body of research outlined above as part of a broader effort to increase sales of Hill's products at the expense of BEG diets.

The campaign played out in numerous venues, including on websites posing as benevolent consumer resources, private Facebook groups, continuing education programs for veterinary professionals, and even in the FDA.

## Part Four: <br> The Propaganda Campaign <br> (Defendants Amplified the Impact of Their False Statements by Promoting Them)

202. The first way that the false statements made in the journal articles above were amplified by the Defendants was by citing and repeating those assertions in Defendants' subsequent academic writing. Citing to one's own papers (or to papers written by other members of an affiliated group) in subsequent papers is known as "self-citation" and it is widely regarded as a problematic feature of the modern practice of professional science, as it tends to artificially inflate the notoriety of the cited works. See, e.g., Van Noorden, R, et al., Policing Self-Citations: Some Top Academics Cite Themselves Heavily, and Researchers Are Debating What To Do About It, Nature. Vol. 572 (Aug. 2019) (available at https://media.nature.com/original/magazine-assets/d41586-019-02479-7/d41586-019-02479-7.pdf (last visited Feb. 2, 2024)). And Defendants' DCM papers feature rampant self-citation: the fifteen papers outlined above include at least 125 distinct instances of the phenomenon. In addition, Defendants' DCM papers cite the FDA's DCM investigation as evidentiary support in at least 26 other instances, without once mentioning that their own cherry-picking induced and influenced the investigation.
203. The second way that these false statements were amplified and misrepresented was through the use of Defendant Hill's website, which receives at least thousands of visitors each year. As discussed supra at $\operatorname{IIII} 60,156$, these include, for example, a link to Dr. Freeman's popular "Petfoodology" DCM article, which was placed on the Hill's webpage for "Alternative Protein: Duck, Salmon and Lamb" diets. Another example: the Hill's webpage "Cardiomyopathy in Dogs:

What You Need to Know," (https://www.hillspet.com/dog-care/healthcare/cardiomyopathy-indogs (visited February 1, 2024), which links to a page on the "VetMed" site of the University of Illinois (see hyperlink referencing "University of Illinois College of Veterinary Medicine"), where Defendant Dr. Fries is interviewed and quoted as stating "These boutique diets tend to come from smaller manufacturers that may not have the nutritional expertise and resources to ensure quality control that the larger, established companies have ... We are not yet seeing DCM in smaller dogs fed grain-free diets produced by large-scale manufacturers." https://vetmed.illinois.edu/pet-health-columns/dcm-canine-heart-disease-boutique-diets/ (visited February 1, 2024).
204. The Hill's website has an entire section that requires account creation and sign-in and is intended for veterinarians and veterinary technicians. This section specifically offers content that attacks competing products using the Defendants' propaganda campaign. For example, the members-only sections of Hill's website offer draft social media posts, called "recommended post copy options," that direct the veterinary workers' social media followers to Freeman's Petfoodology blog, which includes Freeman's own misleading writings promulgating the unfounded connection between DCM and "BEG" diets. Hill's, though this professionalfocused section of its site, is directing the array of veterinarians and their staff, who are also its retail sales force, to spread Freeman's writings.
205. This password protected section also offers a 90-minute video called "Navigating the Pet Food Aisle." It includes false statements about DCM at minutes 39-40. The following screenshot shows a slide displayed in the video presentation:

206. The slide reads, in part, "Diet-induced cardiomyopathy reported since 2017 in dogs fed 'premium' grain-free and boutique foods." This encompasses the invented "BEG" category which is, in essence, Hill's independent competitors. In the video presentation, the Hill's representative makes a false and disparaging statement about DCM, saying that the disease was "associated with some of these grain-free and nontraditional diets..." which is precisely the correlation that has never been shown, despite repeated studies.
207. The third way was through veterinary and technician continuing education programs created, sponsored, or promoted by the Defendants. For instance, in December 2019, the website veteducation.com hosted, in the United States, Australia, and elsewhere, a course that is still available online entitled "Nutritionally mediated DCM in Dogs, Free Webinar brought to you by Hill's Pet Nutrition USA - Clinical Series." In the course description, as shown in the image below), a veterinarian named Michelle Rose summarized the state of the evidence surrounding DCM as follows:

By now, most veterinary professionals understand that there's a link between BEG diets and atypical dog breeds developing DCM.


Nutritionally-Mediated DCM in Dogs
Free Webinar brought to you by Hill's Pet Nutrition USA - Clinical Series


Start Date DECEMBER 10,2019

## SUMMARY

By now, most veterinary professionals understand that there's a link between BEG diets and atypical dog breeds developing dilated cardiomyopathy. To that end, how do we diagnose these patients, and even more importantly, follow up on them? dilated cardiomyopathy. To that end, how do we diagnose these patients, and even more importantly, follow up on them?
This lecture will provide a cardiologist's perspective on this issue, discuss the patient population at risk, and go over the FDA update.
After participating in this session, attendees will:

- Be familiar with taurine's role in nutritionally-mediated DCM.
- Understand which screening and diagnostic tests are recommended.
- Have a treatment and follow up plan for dogs affected by nutritional cardiomyopathy


## WHEN IS IT?

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    USA and Canada Australia and New Zealand Other Countries
    Date: Tuesday, 10 December 2019
    Time: 20:00 EST
Note: This webinar is being recorded. If you are unable to attend the live lecture, a link to the recording will be shared with you
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208. This statement is false because it necessarily implies that there is in fact evidence of correlation ("a link") between "BEG" diets and higher incidence rates of DCM among atypical dog breeds.
209. The same or similar presentation appeared in 2020 on Defendant Hill's "Hill's North America" website, again, as shown in the image below supposedly produced by VetEducation (the self-styled "education partner of Hill's Pet Nutrition").

210. But, as shown above, the evidence referenced in the course description does not in fact exist.
211. In addition, documents produced in response to Plaintiff's FOIA request show another way that Hill's and MAF tried to promote misinformation about non-traditional diets to veterinarians through Dr. Stern.

On Nov 11, 2018, at 12:29 PM, Kelly Diehl
@morrisanimalfoundation.org> wrote:
Hi Josh -

I hope you're having a great weekend. We're getting some snow and cold weather today - however, we bounce back to warm weather late next week. At least we're getting some much needed moisture.

I have a question for you - we've started a podcast series aimed at our veterinarian donor base and I was wondering if you would mind recording a segment with me on DCM and the whole grain-free diet thing. We don't need to tread into any controversial areas just give an overview of where we're at with this issue and what veterinarians can do. The whole interview takes roughly 30 minutes - we rent out a recording studio and do some back to back taping at one time. I recently had a delightful interview with Kate - I think she found it painless! We post one podcast per month (we just started in October). I would give you a rough question list ahead of time to give you an idea what l'll ask.
212. When he agreed to do that podcast, she sent him a list of questions that made clear MAF's intention to spread its message against grain-free diets. Those questions include the

## following:

7. Are there any other nutrients that have been associated with DCM or heart disease in general?
8. Now let's talk about when people first started to notice something peculiar about the incidence of DCM in dogs - when did people first think something was changing?
9. When did veterinarians and researchers start to make an association between diet and DCM - what led to this association?
10. Can you tell us the status of the disease now - what do we know and what do we NOT know?
11. Tell us something about making the diagnosis of DCM secondary to diet.
12. Tell us about how this problem is treated as well as short and long term prognosis.
13. What should an owner do if they're concerned about this disease in a dog that has been eating a grain free diet but has no signs of heart disease.
14. A common question I hear from owners is what to do to find an alternative diet in dogs that are on grain free diets for other health reasons - what are your recommendations?
15. These questions were clearly intended to help promote a perception that a connection had been proved between diet and DCM---a perception that would be immensely profitable for MAF's founder and benefactor, Defendant Hill's.
16. The fourth type of venue for propaganda spun from the false and misleading statements made in journal articles written by the Defendants has been private Facebook groups moderated, sponsored, or otherwise controlled by the Defendants. In recent years, academics who specialize in misinformation research have increasingly identified such groups as particularly common and potent weapons in bad-faith misinformation campaigns. For instance, in a 2020 National Public Radio article entitled "'Facebook Groups Are Destroying America': Researcher on Misinformation Spread Online," New York University professor Nina Jankowicz described the problem as follows:

It's a real problem, though. Basically these are spaces that ... don't have the same amount of oversight as other spaces. They are moderated by group moderators. And Facebook doesn't look at them, but they can also be private and secret, which means that bad actors can target people who are going to be most vulnerable.

The reason my co-author and I decided to focus on [Facebook] groups is because it has been the primary vector of disinformation on Facebook for the past several years.
https://www.npr.org/2020/06/22/881826881/facebook-groups-are-destroying-america-
researcher-on-misinformation-spread-online (last visited Feb. 2, 2024).
215. The Facebook group that appears to have been most central to Defendants' scheme has changed names numerous times in recent years. As of the filing of this action, it is being called "Diet-Associated Dilated Cardiomyopathy (DCM) in Dogs" (hereafter "the DCM Facebook Group"). This group presently has more than 129,000 members, a shockingly large number considering that fewer than 2,000 cases of canine DCM have been reported to the FDA since its investigation began five years ago.
216. The DCM Facebook Group currently disguises its origins and lists 23 different moderators. But correspondence with the FDA obtained through FOIA shows that prior to 2018, the group was "working closely with" Defendant Stern, and his publications are featured prominently in the literature the group promotes. The DCM Facebook Group is not a forum open to discussing the science; rather, its rules expressly mandate a single point of view:
a. Rule 9: Respect Affected Families. When you see a post about a dog with DCM: be kind and ask only relevant questions. There is ZERO TOLERANCE for using an affected dog DCM post to argue against the science of nutritional DCM.
b. Rule 10: Read the Units. We will delete comments that are contrary to the science and research we have provided in the files and units or that reference opinion rather than science.
217. Whether in their "units," the free handouts available for download from the group, or in individual posts, the moderators of the DCM Facebook Group have consistently mischaracterized the false and misleading journal articles outlined above. Specifically, they have consistently misrepresented these studies as showing a correlation between "BEG" diets and increased DCM incidence rates when in reality none of the studies actually reached such a finding. A non-exhaustive list of demonstrably false statements of fact published in the group follows.
a. "[W]e only know what broad diet types have been associated with the disease: those that are high in pulse legumes, such as peas and lentils, those that are grain-free, those that are produced by small manufacturers with heavier focus on marketing than research." This statement is false because, in reality, there is
no evidence that any of these types of products are correlated (or "associated") with higher incidence rates of canine DCM.
b. "What we know so far is that disease [DCM] is disproportionately associated with grain-free diets or diets high in pulse legumes, such as peas or lentils, particularly when made by manufacturers with a small market share. A small number of cases have been associated with boutique diets that fall outside of the grain-free, high-pulse pattern." This statement is false because, in reality, there is no evidence that any of these types of products are correlated (or "associated") with higher incidence rates of canine DCM.
c. "The FDA's current investigation into diet and DCM was publicly announced in 2018. However, cardiologists were seeing a trend of atypical DCM cases for several years prior." This statement is false because there is no scientific evidence that higher rates of DCM (of any type) were being diagnosed by cardiologists prior to the FDA's investigation.
d. "Since the onset of the investigation, the FDA has received hundreds of case reports..." This statement is misleading because it neglects to mention that hundreds of the cases submitted to the FDA were deliberately cherry-picked by the Defendants.
e. "Since the onset of the investigation ... seven independent studies have been conducted by researchers." This statement is false. More than seven such studies have been conducted---they just found no well-supported evidence to support any kind of association between " $B E G$ " diets and DCM.
f. "The FDA, researchers, and individual clinicians and pet owners have all reported reversal of disease with a diet change." This statement is misleading because there is no evidence that a diet change can reverse DCM unless it is accompanied by common, well-established treatments for DCM, such as taurine supplementation. There is no evidence, for instance, that only changing from a "BEG" diet to a non-"BEG" diet tends to reverse DCM.
218. The moderators have also repeatedly blocked/banned and deleted comments made by individuals who contradict the assertion that "BEG" diets are correlated with higher rates of canine DCM, even when the commenters are board-certified veterinary nutritionists, tenured professors at veterinary schools, or others highly qualified in pet nutrition.
219. Not unlike the cherry-picking schemes effectuated by Dr. Freeman and Dr. Adin, the moderators have also cherry-picked and amplified user posts featuring stories and images of DCM-positive dogs who were being fed "BEG" diets. They did this by commenting on, sharing, and otherwise promoting such user content while selectively prohibiting and deleting user content involving DCM-positive dogs who were being fed non-"BEG" diets. The net impact of these practices was to make "BEG" diets appear to the 129,000 group members more common among dogs with DCM than such diets truly were.
220. These various moderator tactics worked together to turn the DCM Facebook Group into an echo chamber, one where the only acceptable belief is the false notion that "BEG" diets cause dogs to develop DCM.
221. While nearly all of the DCM Facebook Group's moderators and administrators appear to be the accounts of natural persons, one of the listed administrators is the "Diet-Associated DCM Education Alliance." Diet-Associated DCM Education Alliance hired a lobbyist to represent
the group in front of the FDA. That lobbyist works for a firm whose offices are located only twenty miles away from Defendant Josh Stern's place of work (the University of California, Davis).
222. The moderators of the DCM Facebook group also created a public-facing website devoted entirely to amplifying the false idea that "BEG" diets are correlated with an increased risk of canine DCM and about the only way to keep your dog safe is to feed it Hill's products, or those of two other large firms. Like the DCM Facebook group, the associated website has changed names (and homepage urls) over the years. As of May 2023, it seems to be called "Taurine + DCM" and can be found at dcmdogfood.com. Hereafter it is referred to as the DCM Propaganda Website.
223. This website has clear ties to the Defendant veterinarians in this case. On its "How Can I Help" page, it provides links to make donations to five institutions, three of which are the UC Davis Cardiac Genetics \& Pharmacogenomics Laboratory Fund (the description of which references Dr. Stern), the Cummings School of Veterinary Medicine at Tufts University (where Drs. Freeman and Rush teach), and the University of Florida (where Dr. Adin teaches).
224. The DCM Propaganda Website is directly affiliated with the DCM Facebook Group. The website describes itself as follows: "We are the admins of the Taurine + DCM Facebook Groups" and includes a link to the DCM Propaganda Facebook Group.
225. The DCM Propaganda Website also sets forth all or most of the rules from the DCM Propaganda Facebook Group. So, just like the rules from the DCM Propaganda Facebook Group, the website's rules serve to create an echo chamber of misinformation.
226. The DCM Propaganda Website provides site visitors with many of the same free informational resources that the DCM Propaganda Facebook Group provides to its members, including several of the false and defamatory articles discussed above as well as the false and
defamatory blog posts written by Defendant Freeman, resources prepared by Defendant Stern, and more.
227. The DCM Propaganda Website also includes a blog, which the site claims has been read by more than 50,000 readers. One type of article that has been published on the blog is entitled "Pet Food Company Visits." But it appears that the site's administrators have only visited a single company so far. That company is Defendant Hill's.
228. In 2019, according to the website, at least five of the site's administrators were invited to Hill's headquarters in Topeka, Kansas. The company spent an entire day with the administrators, conducting "a symposium focused on reviewing what we currently know about nutritionally-mediated dilated cardiomyopathy (NM-DCM) and the nutritional concerns that are at the forefront of both the veterinary and pet food manufacturing communities." At least seven different Hill's veterinarians gave presentations to the group. The contents of these presentations aren't summarized in detail on the DCM Propaganda Website. But the site does feature a lengthy list of answers to frequently asked questions about pet food and DCM, many of which read like Hill's advertisements. These answers also contain a host of demonstrably false statements of fact about pet food and DCM. A non-exhaustive list follows.
a. "The FDA has identified a worrying correlation between grain-free diets and dilated cardiomyopathy." This statement is false because the FDA has never identified a correlation between grain-free diets (or any other group of pet food products) and DCM, and any investigation it did was swayed by Drs. Freeman and Adin's cherry-picked evidence.
b. "We want to be extremely clear that the FDA advisory does not apply solely or exclusively to grain-free foods. It applies to any foods that are generally
un(der)tested or un(der)studied as long-term dog diets. We sometimes talk about them as "BEG" diets." This statement is false because the FDA has never used the term "BEG diets," a term created by Defendant Freeman for the purpose of the propaganda campaign. The FDA has never made any statements about the significance to DCM of pet foods being "un(der)tested or un(der)studied as long-term dog diets."
c. "In terms of exactly what's going on in exactly what pieces of the diet, nutritional DCM is one of those rare diseases where we have the cure before we know the precise details of the cause. We do not think you should wait to act until we know those specific details. There is no risk in switching to a proven and tested diet, and a definite risk in staying on a suspect diet." This statement is false because it implies that "switching to a proven and tested diet" has been shown to "cure" DCM, but there is no evidence supporting this assertion. It is also false because there is no evidence that any type of "suspect diet" increases the risk of canine DCM.
d. "DCM is caused by boutique brands, exotic proteins, or grain-free or a combination thereof..." This statement is false because there is no well-founded evidence that DCM is caused by any of these things.
229. In the end, the DCM Propaganda Website recommends pet foods produced by only three companies. They're the same ones that Defendants Freeman, Adin, and Stern recommend (and were recommending, for completely different reasons, long before the DCM scandal began): Defendant Hill's and two others.
230. Neither the DCM Facebook Group nor the DCM Propaganda Website appears to generate revenue through any kind of business operations or to solicit financial contributions or donations. Nevertheless, it appears that they have enough money to pay for a lobbying firm that calls itself "one of the top lobbying shops in Sacramento."
231. At a 2021 FDA "Virtual Listening Session on the Oversight of Pet Food" a lobbyist named Catherine Castonguay from the Sacramento law firm Nielsen Merksamer Parrinello Gross \& Leoni LLP appeared on behalf of "Diet-Associated DCM Education Alliance." See https://www.fda.gov/media/152417/download (last visited Feb. 2, 2024). Ms. Castonguay is the firm's "Senior Director of Political Resources and Reporting." During her presentation, Ms. Castonguay lobbied the FDA to "issue more frequent, less ambiguous updates to the public" about DCM (i.e., do more to push the false idea that canine DCM is correlated with "BEG" diets) and to make the FDA's reporting portal easier to use (i.e., make it easier for the Defendants to continue their fraudulent cherry-picking scheme). She did not indicate whether the organization she represented was associated with any of the Defendants.

## Damages

(The Financial Consequences of the Defendants' Fraudulent Scheme)

## The Benefits for Hill's

232. As mentioned earlier in this Complaint, Hill's market share had been steadily declining in the years leading up to the 2018 launch of the FDA's DCM investigation. In 2014, the company's annual revenues were $\$ 2.26$ billion. But four years later, in 2017, its annual revenues were still only $\$ 2.29$ billion, meaning that over the four-year period ending in 2017, the company grew by a total of only about $1 \%$.
233. During this time, the American Pet Products Association reports that overall U.S. pet food industry grew by more than $28 \%$, from $\$ 22.62$ billion (in 2014) to $\$ 29.07$ billion (in
2017). ${ }^{15}$ As such, during the period from 2014 to 2017 , Hill's market share actually fell by more than $20 \%$.
234. The DCM scheme completely reversed the company's fortunes. In the four years immediately preceding the DCM scheme, Hill's didn't grow at all. In the four years since the scheme began, the company's revenues grew by more than $\mathbf{5 0 \%}$, to $\$ 3.3$ billion per year. Represented by the space between the blue and red lines in the chart below, according to its annual reports, the DCM scheme has already enriched Hill's by more than 3.35 billion dollars in additional revenue.

235. The extent to which the DCM scheme directly altered Hill's financial trajectory is difficult to overstate. It is no exaggeration to say that it took an aging business that had habitually

## 15 See

www.americanpetproducts.org/uploads/MarketResearchandData/PetindustryMarketSize2019.pd $f$
failed in each of its increasingly desperate attempts to grow over a period of more than four years and then transformed it (literally overnight) into one of the fastest-growing pet food companies in the world.

## The Costs for Manufacturers of "BEG" Diets

236. Pet food is largely a "zero-sum" industry, meaning that most of Hill's unjust gains correspond directly with unfair losses sustained by the competitors that it defamed, disparaged, and defrauded with its DCM scheme (i.e., the makers of "BEG diets").
237. Publicly available information from veteran pet food industry analysts suggests that these losses have been colossal. For instance, during a presentation at the 2020 American Feed Industry Association's annual conference, Maria Lange, then the Vice President of Strategic Initiatives for the prominent industry analyst Nielsen Co., reported that prior to the launch of the FDA's investigation in the summer of 2018, sales of grain-free pet foods in the United States had been steadily growing at an average rate of $8.4 \%$ per year. But by the end of 2019, not only had that rate of growth slowed, it had been completely reversed. During her presentation, Lange reported that, for the first time in years, the grain-free sector of the pet food industry was actually contracting (by an annualized rate of $5.9 \%$ ) by the end of 2019. According to Nielsen data, the change from $8.4 \%$ growth to $5.9 \%$ contraction represents a difference of $\$ 1.13$ billion dollars in sales in 2019 alone.
238. Plaintiff KetoNatural fits squarely within the category of businesses that Defendants would call "BEG" dog food companies. It is a start-up with far less than $\$ 1$ billion in annual sales ("B"), all of its dog food recipes feature the "exotic" ingredient peas ("E"), and none of its food products include grains ("G"). As such, KetoNatural has been harmed severely by

Defendants' fraudulent campaign of spreading misinformation about "BEG" diets being associated with an increased risk of canine DCM.
239. Because it fits so squarely within the BEG category, it is an exemplar of the experience of many other similarly situated companies. Its experiences as a result of Defendants' scheme are set forth below in that exemplary capacity. Exactly how much business and market value KetoNatural has lost as a result of Defendants' scheme will be proven at trial. But the fact that KetoNatural has been damaged by the scheme is beyond dispute. That's because KetoNatural has cultivated reams of evidence of these damages from former customers who stopped buying its products solely because of the DCM scheme, members of its target market that chose never to buy KetoNatural products in the first place as a result of the scheme, and veterinarians who advised members of both groups not to purchase KetoNatural products because of the scheme. This evidence takes the form of customer service e-mails sent to KetoNatural by members of the three groups, as well the results of a survey of the more than 10,000 dog-owners who subscribe to KetoNatural's email list.
240. Taking the two categories of evidence in reverse order, less than one year ago, KetoNatural asked its email subscribers if any of them had discussed the issue of diet-related DCM with their veterinarians. Those who answered affirmatively were asked a single question: which of the following three options "best describes your veterinarian's perspective about the evidence surrounding diet and canine DCM":
(1) There is evidence that grain-free, "BEG," legume-containing products, or some other subset of pet foods cause canine DCM.
(2) There is evidence that grain-free, "BEG," legume-containing products, or some other subset of pet foods are correlated with higher rates of canine DCM, but causation has not yet been proven.
(3) There is no evidence that grain-free, "BEG," legume-containing products, or some other subset of pet food products are correlated with higher rates of canine DCM.
241. As has already been explained, option (3) is the only one of these three options that is true. Options (1) and (2) are categorically false. Nevertheless, the majority of respondents (50.3\% overall) chose Option (2). In other words, according to one survey of more than 10,000 pet-owners, most of those that recently spoke to their veterinarian about DCM were told there is evidence that "BEG" pet foods have been shown to be correlated with higher rates of DCM, when in reality such evidence does not exist.
242. These survey results clearly show that many (if not most) of KetoNatural's customers and potential customers were advised by trusted medical advisors that the frightening false statement at the heart of Defendants' DCM scheme (that there is evidence that "BEG" diets are correlated or "associated" with a deadly canine heart disease) is true, when in reality the statement is false.
243. Emails received from KetoNatural's former customers demonstrate the significance of such advice. Time after time, the same pattern has repeated itself: a veterinarian wrongly advises a KetoNatural customer that the company's products belong to a class of pet foods that causes or raises the risk of canine DCM , and then the customer stops feeding those products to their $\operatorname{dog}(\mathrm{s})$ or never buys them in the first place. A few of the many examples follow.
244. In April of 2020 a former customer sent KetoNatural an email canceling her ongoing subscription to its dog food products:

To
To: KetoNatural Pet Foods, Info Show more
Hi , I need to cancel my dog food subscription. I just took my dogs to the vet and because of their systemic diseases I can no longer feed them this food. Please cancel my subscription.

Thanks,

245. When a KetoNatural customer service representative asked the reason why the customer wanted to cancel, her reasoning was simple and straightforward: she had been told by her vet that "it is bad for their hearts":


This is a follow-up to your previous request \#8302 "Subscription Support"
I have been told that if my dogs food doesn't have grains in it, it is bad for their hearts.
Sent from my iPhone
246. In June of 2021 another customer canceled her subscription because her vet
"strongly recommended I don't feed her a grain-free diet":

247. In April of 2021 a customer canceled because she preferred "a dog food without

peas or pea protein due to reports of heart | problems": |
| :--- |
|  |
| To: KetoNatural Pet Foods, Info Show more |
| To whom it concerns, | : Apr 16, 2021 14:30

Please cancel my subscription for any upcoming orders for dog food. I prefer a dog food without peas or pea protein due to reports of heart problems.

Thank you,
248. In January of 2022 a customer canceled because, even though it "doesn't make any sense," her "vet doesn't like them [the dogs] eating food without grain":

To: KetoNatural Pet Foods Show more
Hi Melissa I am cancelling because my vet doesn't like them eating food without grain. Doesn't make any sense to me but my Dr. Daughters both though it did. Do you have any food with grain?
249. In May of 2022 a dog-owner decided not to purchase KetoNatural products because peas are "no good for dogs" because they are "causing problems in the heart":

[^1]250. In November of 2021 a customer canceled her subscription because the dog was having "issues $\ldots$ and the vet continues to believe that it is from the grain-free food":

251. In April of 2022 a dog-owner decided not to purchase KetoNatural products after her "vet told me" that "there is proof that it leads to heart issues."

Oh I saw the reviews but a grain free diet for dogs is not good and there is proof that it leads to heart issues. That is what my vet told me and even showed me the articles about it. I do like the amount of protein your product has and the low carbs but dogs do need grain for proper nutrition especially a dog with health needs as my diabetic dog has.
252. Just to drive the point home, another eleven examples follow. But, again, these are just the tip of the iceberg. Within the files maintained by KetoNatural's customer service department, there are hundreds of others in which customers report being told false statements about DCM by their veterinarians.


To: KetoNatural Pet Foods Show more
BTW I did read about DCM. This doctor was pushing this, she even had a chart in the exam room of which food was "killing" the dogs. I'll be finding a new vet but please still respond to my original email. FDA is unbelievable!


#### Abstract

Hello, Our 12-year-old cockapoo Winston was diagnosed with diabetes nearly a year ago. It was extremely upsetting and concerning to hear, especially since he's so active and healthy otherwise. We vowed to get his diabetes controlled, and find him the best food and medical care. The first two months were tough, his glucose numbers were not under control, and he even had a couple visits to the ED. His primary vet had suggested a high fiber diet, which resulted in weeks of him having accidents in the house. Needless to say very upsetting for everyone. We switched his care over to the University of Minnesota which is one of the best vet facilities in the US, and after reading about Ketona, I personally made the decision to switch him over to it, and we did it slowly over two months just to be safe. Within a month his glucose numbers were excellent, and 9 months later, they are still excellent. He acts like a puppy, has lots of energy, and his muscle strength, especially in his back legs is better than it's been in over a year. His turnaround, is largely due to Ketona, and yet after each vet visit, they continue to warn me about grain free diets and DCM. I told them repeatedly that Ketona is unlike other gain free foods, shared information with them, but they repeatedly promote and try to push big name brands like Purina. The proof is in the pudding as they say, our dog is doing fantastic, but all they seem to focus on the grain free diet piece. Very irritating! Anyways, thanks again for your product, and thanks for posting that article about not having to worry about DCM with Ketona!




$$
\vdots \quad \text { Oct } 02 \text { 10:01 }
$$

Hello,
I am intrigued by your products for my overweight 7-year old golden Retriever. I do not feel comfortable, yet, switching from Purina Pro Plan Sensitive Stomach. (She is used to that from our older allergic dog that needed it.) Because a ketogenic diet has done so well for us personally, I wanted to look into your presentation on YouTube. I wish you the best but I don't believe Ketona has been around long enough to prove that your food, made with pea protein as the third ingredient, will not "cause" or be associated with DCM, as I read in your research paper. I really hope I am wrong and will be keeping up with results.
I appreciate your industrious research!
Candice Hendrix

Hello, my dog is currently on a raw keto diet. Recently, a couple of vets have advised that grain kibbles is much better and that a raw diet is very bad for my dog. Why am I hearing this as the general narrative from so many vets? thanks.

Inis is a rollow-up to your
previous request \#1255 "Subscription"
Hi Melissa,
I am so sorry it has taken me this long to respond as to why I cancelled my subscription with Ketona. My dog Quincy loved your food and did very well on it. My fear was the correlation with grain free diets and DCM. I read your articles and they make perfect sense, but every vet I spoke with (I work with vets in a non profit organization and they have no stock in any dog food companies) seemed to think it might be a good idea to switch foods. I lost a dog 2 years ago to DCM; she was not eating Ketona but was on a main free diets during the course of her life.
ruggled for a long time making the decision to switch foods. I will always feel a little guilty about the dog I lost, even thave had nothing to do with her food. The fact is, I will never know, and I wouldn't be able to forgive myself if the same thing happened to Quincy. If there was some breakthrough of evidence that clarified the cause of DCM, I would absolutely go back to Ketona. It is a wonderful food and your customer service is top-notch!

Vamplover1966
Mar 18 10:20
To: Vamplover1966 Show more
My dog recently has been found to have cushings disease an adrenal gland malfunction and a heart murmur heart disease his vet has said its because i do grain free but his tummy gets uoset with grains is this food goid for him? Does it put his system inti ketosis? What does that mean for my dog? He also needs a smaller bag 4 lb dont you sell that anymore?

## Angiedefoort

Apr 02 19:21
To: Angiedefoort Show more
I just placed an order for my Great Danes and noticed that peas are the second ingredient listed. My concern is that peas have been reported to be of a concern with Danes and heart conditions. How much of this product contains peas and I may just want to cancel my order I just placed if I am worried about feeding it to my Great Danes so what do I do in that case? I did notice you advertise that if I'm not happy with product you give a $100 \%$ money back guarantee as long as I donate to a facility. Is this actually the case?

## Chat ID: 2106.10210913.SZI1rj13ifaOf

Offline transcript: Just got back from our vet with our new puppy and she started talking about grain free foods and cardiomyopathy. She also keeps telling us Murphy is a little thin. We think he's lean and looks good. Seems like she would rather have him roly poly fat. I've read the article about cardiomyopathy and am suspicious about her concerns. My wife and I diet and hear all the crap about that too. Our older dog has been eating Ketona for years and does well. She never seems concerned about her. I guess we are just looking for more reassurance. Thanks

Chat ID: 2107.10210913.ScsaeSPdUBEVR
Offline transcript: My Westie was diagnosed with pancreatitis and diabetes. I tried several options given by our vet but nothing seemed to be helping. I decided to search and found Ketonatural which vets do not endorse and say this diet causes kidney failure and heart disease. My little guy made a dramatic turnaround within two days of eating your food but now I am concerned about other issues. I have cancelled my next order in hopes to see it the vet recommendation will keep him in check for the next few weeks before reordering Keto. If you have any further advice I would appreciate hearing. I have read the side effects of being on a Keto diet and am very concerned. This has been quite a long process and food is difficult to choose. Thank you
Hccash $\quad \vdots$ Jan 06, 2022 12:36

## To: KetoNatural Pet Foods, Info Show more

I currently use your food for my diabetic dog. Do you have any thoughts on some of the research articles condemning pea protein as an appropriate ingredient in dog food? My veterinarian has suggested I should not be using it.

Thanks.
$\vdots \quad$ Mar 31 14:02

Hello I purchase a large bag of your dog food and told my vet about it. They were concerned that the number 2 ingredient listed on the packaging was pea protien. Studies show their is a link between grain free/low carb and pea protein causing dilated cardiomyopathy in canines. Since I did not receive an ingrediant percentage list on the bag could you let me know what the percentage is for pea protein is in your product. The vet did tell me it is used because it is quite palatable and dogs love it. My senior dogs do like your food. Thank you in advance for getting back to me. MaryAnn

To: KetoNatural Pet Foods Show more
Oh I saw the reviews but a grain free diet for dogs is not good and there is proof that it leads to heart issues. That is what my vet told me and even showed me the articles about it. I do like the amount of protein your product has and the low carbs but dogs do need grain for proper nutrition especially a dog with health needs as my diabetic dog has.
253. The overall shift in market trajectory shows that KetoNatural's experience of abrupt shift in market trajectory was common to the entire Class.

## Additional Harm to Pet Specialty Retailers, Dog-Owners, and Pet Dogs

254. Unfortunately, the makers of "BEG" diets are not the only businesses to be damaged by Defendants' fraudulent scheme. As mentioned earlier, "pet specialty" retail shops are pet stores that offer customers an alternative to "big box" stores and veterinary clinics. Their product offerings tend to skew highly towards "BEG" diets and away from products made by legacy kibble companies Hill's. As such, they too have suffered as a result of the contraction in the market for "BEG" diets.
255. In some cases, the harm has been too much to bear. Recently, Independent Pet Partners ("IPP") filed for Chapter 11 bankruptcy protection. See In re Independent Pet Partners, 23-10153 (LSS) (Bankr. D. Del.). With a chain of more than 160 pet specialty retail stores under its operation and annual sales of more than $\$ 200$ million, IPP is one of the largest pet specialty businesses in the world. In its Chapter 11 petition, IPP identified the DCM controversy as the market event most responsible for its sudden failure (more so than even the COVID-19 pandemic):
$42 \ldots$ In June $2019 \ldots$ news outlets and social media platforms began publicizing
an ongoing FDA investigation into DCM. Specifically, the FDA had received reports from consumers that led the agency to investigate whether certain kinds of dog food correlated with DCM. These consumer reports largely related to dogs on a grain-free diet---the very type of dog food that [IPP] primarily stocked and their customers preferred.
256. While the FDA has yet to identify a specific dietary link between grain-free diets and DCM, the publicity surrounding the investigation had a significant and negative impact on [IPP]'s business, as many of their customers immediately changed their buying habits.
257. According to its Chapter 11 petition, the DCM investigation caused IPP to lose more than $\$ 10$ million in sales over the second half of 2019 alone. The losses continued until bankruptcy was inevitable.
258. Sadly, there are two other groups that have been hurt by Defendants' illegal scheme: American dogs and their loving human guardians. Americans today spend more money each year on veterinary care and pet food than any other group in the history of the world. But, incredibly, America's population of pet dogs has never been less healthy. Not unlike their human guardians, America's dogs are presently experiencing contemporaneous epidemics of diabetes, cancer, obesity, arthritis and other chronic, noncommunicable diseases. All of these problems have links to nutrition and all of them have gotten worse, not better, since Hill's began building inroads of influence with the veterinary community in the 1980s.
259. Focusing the pet-owning public's attention on a bogus link between "BEG" diets and canine DCM serves, by necessity, to draw the focus away from these other, much more significant diet-related canine health issues. As just one example, more than half of the dogs in America today are overweight, a condition which has been shown through rigorous, long-term study to be deadlier for a dog than a lifetime of smoking is for a person. And there is a sizable body of peer-reviewed evidence showing that carbohydrates play an outsized role in causing canine obesity. But every single low-carbohydrate pet food product being sold in America today
is, by definition, a "BEG" diet. Who knows how many thousands (or millions) of dogs have been made overweight and sick because their owners wrongly focused on a groundless diet-related health scare, instead of one with a real, solid evidentiary basis?
260. If, as the evidence suggests, digestible carbohydrates play a central role in causing canine obesity, then Defendant Hill's-despite its self-styled image as the pet food brand bestaligned with matters of veterinary public health-is largely responsible for America's canine obesity epidemic. This is because, across the board, digestible carbohydrates are the most abundant nutrient in Hill's pet food products. In fact, in many Hill's pet food products, digestible carbohydrates (typically from corn and other grains) make up more than half of the product by weight. According to its label, there is more digestible carbohydrate (53.9\%) in Hill's popular Adult Chicken and Barley Recipe Dog Food than protein, fat, fiber, water, and all other nutritional contents combined. Even Hill's prescription-only diabetes products contain an abundance of dietary carbohydrate.
261. But, amazingly, that's not even the worst example of the harm caused by diverting the public's attention onto DCM when it should have been focused on diseases caused by Hill's own products. Because at the very same time that Hill's was promoting the bogus idea that "BEG" diets were poisoning millions of dogs, its own products really were poisoning untold numbers of dogs. More specifically, at the same time that Hill's was sending the FDA on a wild goose chase involving DCM and "BEG" diets, the company was manufacturing and selling millions of cans of pet food products contaminated with toxic and often fatal levels of vitamin D. Consuming too much vitamin D causes kidney failure in dogs. Which is why vitamin D toxicity is so often fatal for the animals (it is at least as deadly as DCM). Over the course of 2019, Hill's was repeatedly forced to recall its products (when the dust finally settled thirty-three different products had to be
recalled) after discovering that a massive number of them were contaminated with toxic levels of vitamin D. Unlike the DCM fiasco, the FDA has left no room for doubt about whether Hill's did or did not cause an outbreak of vitamin D toxicity-it most definitely did. See https://www.fda.gov/animal-veterinary/outbreaks-and-advisories/fda-alerts-pet-owners-and-veterinarians-about-potentially-toxic-levels-vitamin-d-33-varieties-hills (last visited Feb. 2, 2024). Hill's has thus far refused to release numbers indicating exactly how many dogs it has killed, but the company has already recalled at least tens of millions of cans of pet food. (See https://www.cbsnews.com/news/hills-dog-food-recal-pet-owners-report-dog-deaths-from-recalled-food-with-vitamin-d-dangers-on-social-media/.)
262. As explained earlier, Hill's vitamin D recall occurred contemporaneously with the company's first period of sustained growth in half a decade. The fact that Hill's revenues were skyrocketing at precisely the same time that the company was managing the fallout from one of the largest and deadliest pet food recalls in the history of the United States is a testament to the jaw-dropping success of the DCM scheme. The bogus "association" between "BEG" diets and DCM completely overshadowed the very real one between vitamin D poisoning and Hill's own products.
263. The tactics and strategies that enabled Hill's to manufacture a fake public health crisis involving DCM—buying veterinarians, funding influential health organizations, lying about science, defrauding the FDA and other regulators, treating institutions of higher education as venues for propaganda and misinformation-are the same tools that Hill's has been using for decades to foster the illusion that its products - which lack significant dietary benefits that can be found in many of the alternative diets that they are deriding -- are actually the keys to longevity and disease avoidance in companion animals. As such, exposing the company's egregious
misconduct around the DCM scandal is likely, over the long run, to help improve the health of millions of pets around the country as well.

## DEFENDANT HILL'S RETALIATORY STATEMENTS

263. On or about November 27, 2023 (and after Hills became aware that Plaintiff was planning to file the instant action), an account under the name of Monicat VA posted a comment to the Facebook page maintained by Plaintiff for marketing and customer relations purposes. In a discussion of the protein content of Plaintiffs' dog food, this account stated, "Will you be paying all the Veterinary bills after you destroy all these pets [sic] kidneys? Geez. Awful idea. Prepare yourself for multiple lawsuits."
264. The account Monicat Va identifies itself as that of a Hill's employee in several other posts.
265. The statement, indicating that the protein content of Plaintiff"s food will "destroy ... pets kidneys" is untrue and without foundation. The statement demonstrates a common commitment by Hills's to the tactic of accusing its smaller competitors' products of harming pets when it feels threatened.

## FRAUDULENT CONCEALMENT

266. As described above, Defendants concealed the connections between the each of them by, among other things, omitting disclosure of financial ties from published articles and communicating by email in furtherance of their conspiracy to conceal their agreement and common purpose.
267. Among other things, the Defendants' involvement in prompting the FDA to commence and announce an investigation, together with the criteria for cherry-picking cases supplied to the FDA in connection with prompting the investigation, were concealed from the
public and could not have been discovered by reasonable exercises of diligence short of litigation under the Freedom of Information Act.

## CLASS ACTION ALLEGATIONS

268. This action is brought and may be maintained under Federal Rule of Civil Procedure 23 as a class action.
269. Plaintiff seeks to represent the following class (hereafter the "Class"): All individuals and entities who manufactured/sold for commercial profit what Defendants Freeman and others call "BEG" or non-traditional pet foods, at any and all points from July 12, 2018, to the present.
270. Excluded from the Class are: (1) Defendants, and any entity in which any Defendant has a controlling interest or which has a controlling interest in any Defendant; (2) Defendants' legal representatives, assigns, and successors; and (3) the judge(s) to whom this case is assigned, his or her spouse, and members of the judge's staff.
271. Plaintiff and the other members of the Class seek relief under Rule 23(b)(2). The injunctive relief is a significant reason for bringing this case and, on its own, justifies the prosecution of this litigation. Plaintiffs and members of the Class also seek relief under Rule 23 (b)(3) and/or (c)(4).

## Numerosity

272. As defined by Defendants, every pet food line sold in America is a "BEG" diet, with the exception of some or all of those made by Defendant Hill's and three other companies. As such, the Class is composed of at least several hundred individual companies, with collective revenues well in excess of $\$ 10$ billion per year. Members of the Class are thus too numerous to join in a single action. Moreover, members of the Class may be identified through retailer sales
records, industry analysis, federal and state tax filings, and a self-identification process, and may then be notified of the pendency of this action by mail or electronic mail (which can be supplemented by published notice if deemed necessary or appropriate by the Court).

## Commonality and Predominance

273. Common questions of law and fact exist as to all proposed members of the Class and predominate over questions affecting only individual members of the Class. These common questions include the following:
a. Whether Defendants falsely created an impression that "BEG" foods lead to increased risk of death from DCM and thus that it has been established that such foods should be avoided;
b. Whether Defendants coordinated, agreed, conspired and/or combined to convey that impression;
c. Whether Defendants had a meeting of the mind in the conduct of such actions;
d. Whether Defendants' conspiracy to create that impression has caused injury to business or property of Plaintiff and Class Members;
e. Whether Plaintiff and the other members of the Class have otherwise sustained damages as a result of Defendants' conduct;
f. Whether Defendants' conduct constitutes a violation of the Lanham Act;
g. Whether Defendants' acts, statements or omissions constitute fraud;
h. Whether Defendants have been unjustly enriched as a result of their conduct;
i. the appropriate measure of damages Defendants owe to Plaintiffs as a result of such damage; and
j. Whether Plaintiff and the other members of the Class are entitled to punitive damages, and, if so, in what amount.

## Typicality

274. Plaintiff's claims are typical of the claims of the Class. Plaintiff and the other members of the proposed classes all sell "BEG" pet foods, meaning that any misconduct that targeted, affected, applied to, or concerned "BEG" pet foods generally also targeted, affected, applied to, or concerned each and every member of the Class specifically.

## Adequacy

275. Plaintiff is an adequate representative of the proposed Class because its interests do not conflict with the interests of the Class it seeks to represent. Plaintiff has retained counsel competent and experienced in complex class action litigation and will prosecute this action vigorously on behalf of the other members of the Class.

## Superiority

276. A class action is superior to other available means for the fair and efficient adjudication of this dispute. The injuries suffered by most members of the Class, while meaningful, are not great enough to make the prosecution of individual actions economically feasible. Even if members themselves could afford such individualized litigation, the court system could not. In addition to the burden and expense of managing many actions arising from a single pattern of misconduct, individualized litigation presents a potential for inconsistent or contradictory judgments. Individualized litigation increases the delay and expense to all parties and the court system presented by the legal and factual issues of the case. By contrast, a class action presents far
fewer management difficulties and provides the benefits of a single adjudication, economies of scale, and comprehensive supervision by a single court.
277. In the alternative, the proposed Class may also be certified for the following reasons:
a. The prosecution of separate actions by the individual members of the proposed Class would create a risk of inconsistent adjudications, which could establish incompatible standards of conduct for Defendants;
b. The prosecution of individual actions could result in adjudications, which, as a practical matter, would be dispositive of the interests of non-party class members or which would substantially impair their ability to protect their interests; and c. Defendants have acted or refused to act on grounds generally applicable to the proposed Class, thereby making appropriate final and injunctive relief with respect to the members of the proposed classes as a whole.
278. Defendants benefited, in a specific and financially quantifiable amount, from the misconduct alleged in this dispute. Those benefits can be identified and measured from sales records, accounting records, bank records, tax filings, and other regulatory filings. Such monies can be restored to Plaintiff and the other members of the Class.

## CLAIMS FOR RELIEF

## COUNT ONE

VIOLATIONS OF THE LANHAM ACT ON BEHALF OF THE CLASS
279. Plaintiff incorporates by reference the allegations set forth in paragraphs 1 through 278 above as if fully set forth herein.
280. In violation of the Lanham Act, 18 U.S.C. § 1501 et seq., in connection with the commercial promotion of their goods and services, Defendants willfully and intentionally made
false representations of fact that misrepresented the nature, qualities, and characteristics of the "BEG" diets made by Plaintiff and the other members of the Class, namely they willfully misrepresented that there is evidence that "BEG" diets are correlated, linked, or otherwise "associated" with canine DCM when in reality there is none.
281. Defendant Hill's made such statements directly in widely-disseminated communications directed at veterinary professionals that would then, in turn, influence the purchasing decisions of individual pet food consumers, such as the 2020 VetEducation seminar about DCM presented by Dr. Michelle Rose and other marketing materials directed at practicing veterinary professionals in the United States.
282. Defendant MMI made such statements in widely-disseminated communications directed at veterinary professionals and veterinary students that would then, in turn, influence the purchasing decisions of individual pet food consumers, such as in the course materials offered to its client educational institutions and the continuing education programs it offered to its client veterinary professionals. MMI made these false statements for Hill's commercial benefit, as an agent working on behalf of and under control of Defendant Hill's.
283. Defendant MAF provided funding that was intended to and did, directly or indirectly lead to the making of many of the widely disseminated statements at issue by the Veterinarian Defendants.
284. Defendant Freeman made such statements in widely-disseminated communications directed at pet food consumers as well as veterinary professionals and veterinary students that would then, in turn, influence the purchasing decisions of individual pet food consumers, such as the Petfoodology blog posts that functioned as commercial promotions for Defendant Freeman herself, Defendant Hill's, and Tufts University. Defendant Freeman made these false statements
for Hill's commercial benefit, as an agent working on behalf of and under control of Defendant Hill's.
285. Defendant Stern made such statements in widely-disseminated communications directed at pet food consumers as well as veterinary professionals and veterinary students that would then, in turn, influence the purchasing decisions of individual pet food consumers, such as posts, web pages, and comments made on the DCM Propaganda Facebook Group and the DCM Propaganda Website. These communications functioned as commercial promotions for Defendant Stern himself, Defendant Hill's, and the University of California-Davis. Defendant Stern made these false statements for Hill's commercial benefit, as an agent working on behalf of and under control of Defendant Hill's.
286. Defendants Freeman, Adin, Stern, Fries, and Rush, also made such statements in widely-disseminated communications directed at veterinary professionals who would then, in turn, influence the purchasing decisions of individual pet food consumers, such as those in the journal articles and interviews on the subject of DCM. Defendants made these false statements for Hill's commercial benefit, as agents working on behalf of and under control of Defendant Hill's.
287. These various false statements had a tendency to deceive and did in fact deceive their intended audiences, in that they falsely suggested that "BEG" pet foods have been shown to be correlated with an increased risk of DCM when in fact they have not. This deception was highly material to the purchasing decisions of individual pet owners, as the statements were disseminated to millions of pet food consumers and DCM is a deadly disease.
288. Plaintiff and the other Class members were likely to be damaged by the many false statements about DCM made by Defendants in these widely-disseminated commercial promotions.
289. Plaintiff and the other class members have suffered injuries to their businesses, properties, and reputations by reason of Defendants' violations of 18 U.S.C. § 1501 et seq., and are entitled to judgments against Defendants for all resulting damages. Among other injuries, Plaintiff and the other class members have suffered lost profits, reputational damages, and other economic injuries in an amount exceeding $\$ 2$ billion (precise amount to be proven at trial). Because Defendants' misrepresentations were willful, knowing, intentional, and malicious, Plaintiff and the other class members are entitled to recover treble damages.

## COUNT TWO <br> CIVIL CONSPIRACY ON BEHALF OF THE CLASS

290. Plaintiff repeats and realleges each and every allegation set forth in Paragraphs 1 through 278 , as if fully set forth herein.
291. Defendants agreed between and/or among themselves in a meeting of minds to wrongfully decrease the share of the pet food market held by manufacturers of non-traditional "BEG" diets, and have taken at least one act in furtherance thereof causing damages to Plaintiff and the proposed class of similarly situated manufacturers of non-traditional pet food.
292. An agreement and conspiracy existed to create the impression among American dog owners that a massive, diverse group of dog food products made by Hill's competitors that can be described under the heading - too broad to be meaningful - "BEG," all increase the risk of a deadly canine heart disease, DCM. They conspired to intentionally do so by cherry-picking evidence, and overstating, in their non-academic consumer friendly writings, the non-decisive results of their academic studies.
293. Defendant Hills itself and through Defendants MAF and MMI provided extensive funding to the Individual Defendants and their universities. It did so to build and maintain useful relationships with friendly veterinarians that it could call on as needed.
294. Ultimately, no later than 2018, Hill's made it known to these veterinarians that it wanted them to create and provide support for a public fear that boutique, exotic and grain-free foods that were cutting into its market share were dangerous, causing a risk of DCM to beloved dogs.
295. Dr. Freeman responded, in furtherance of the conspiracy, by creating a protocol whereby cases of DCM were reported to the FDA only if the dogs were eating "BEG" diets and then proceeded to file exponentially more DCM reports than had been filed in any prior year, much less by any single doctor.
296. Dr. Adin, like Dr. Freeman, submitted cherry picked reports of DCM to the FDA.
297. On information and belief, Dr. Stern also led the FDA to believe there was a meaningful relationship between grain-free diets and DCM. Plaintiffs believe that discovery will reveal that Dr. Stern received research funding and support from the MAF Golden Retriever Lifetime Study.
298. They did so, grateful for the funding that Hill's had provided them, their research projects and/or their universities in the past, and expecting more such funding in the future.
299. Leading up to Dr. Freeman's taking this action, her conflicts statements already indicated that she had, within the prior three years, given sponsored talks for Hill's. It can be inferred that Hill's encouraged her - as a doctor that it funded to be friendly, to submit cherrypicked case reports and post a statement of concern on Petfoodology.
300. The skewed evidence that these doctors provided led the FDA to put out a call for DCM cases thought to be food-related, which resulted in an over reporting of DCM cases involving grain free or pulse intensive diets. The doctors, in turn, used the FDA's call in their own writing,
suggesting concern must be warranted because the FDA is looking into it, without disclosing that it was they who triggered the FDA to look into it.
301. Dr. Freeman also, on June 4, 2018, in furtherance of the conspiracy posted the Petfoodology article in which she made up the term "BEG" cover diets made by a vast swath of Hill's competitors, and, without scientific proof, raised fears about the risk that such diets cause DCM. See https://vetnutrition.tufts.edu/2018/06/a-broken-heart-risk-of-heart-disease-in-boutique-or-grain-free-diets-and-exotic-ingredients/ (last visited Feb. 2, 2024).. She continued to post three additional consumer friendly articles on the issue over the coming years.
302. On Hill's website, in furtherance of the conspiracy, it provides a link to one of the Petfoodology blogs - citing it as evidence that certain diets may be harmful. That is an opportunity it hoped to have from the outset of the conspiracy when it let it be known that it wanted the veterinarian defendants to provide support for a perception that "BEG" diets were dangerous.
303. On Hill's website, in furtherance of the conspiracy, it also provides a link to a blogpost by defendant, Dr. Fries. As detailed further herein, on the Hill's website page concerning DCM, it links to an interview with Dr. Fries in which expressly suggests that DCM may be linked to "boutique diets" from "smaller manufacturers."
304. The Individual Defendants including Drs. Adin, Stern, and Freeman and Dr. Freeman's husband, Dr. Rush as well as their longtime collaborator, Dr. Fries, in turn, in furtherance of the conspiracy, wrote journal articles that read like a witch hunt - creating the impression that there was something dangerous that causes DCM in all "BEG" foods- a category so broad as to include every food not made by the biggest three traditional pet food manufacturers in the country. They created that impression by publishing study after study
that asked the question of whether there was something dangerous about "BEG" foods, even though they did not prove conclusively, through scientific evidence, that there was.
305. These articles, as intended, were read by veterinarians and translated back to their patients when making pet food recommendations.
306. Drs. Freeman, Adin and Stern also gave quotes about the issue in widely read media such as the New York Times and Washington Post.
307. Hill's itself was at the heart of this scheme in ways more fully described throughout this complaint, which include, but are not limited to, that:
a. The endowment that Hill's provided to MAF provided significant funding to Defendants' own studies and/or those performed by others at their Veterinarian Schools.
b. MAF was a major funder of the cardiology lab at the Cummings Veterinary School of Tufts University, where Dr. Rush is a veterinary cardiologist and Dr. Freeman performs related research.
c. Defendant Freeman was paid to give talks on behalf of Defendant Hill's.
d. Dr. Stern was a member of the MAF Scientific Canine and Feline Advisory Boards which became the Small Animal Scientific Advisory Board that he headed in 2022.
e. Dr. Freeman wrote and disseminated highly popular anti-"BEG" writing on Petfoodology, the blog where the highly popular, layperson-friendly posts that kicked off the wave of unfounded hysteria about a purported link between "BEG" diets and DCM in 2018 where it
published subsequent posts to keep the controversy fresh in the public's consciousness. The other two founders of that blog were both closely tied to Hill's.
f. Hill's provided links to Defendants Freeman and Fries's blogposts on its own website pages that warned consumers of dog health risks.
g. Hill's, through MAF and MII provided other funding to Defendants, their research or their schools;
h. Hill's also funded other sponsored talks concerning the purported connection between DCM and "BEG" diets.
308. Each defendant knowingly agreed to engage, and did engage, in one or more overt acts in pursuit of the conspiracy as set forth with more particularity in this Complaint.
309. As a direct and proximate result of the conspiracy, Plaintiff and members of the proposed class of similarly situated manufacturers and sellers of non-traditional dog food were directly and materially damaged in an amount to be determined at trial, in that they were caused to lose tangible sums of money and was harmed in diverse other ways, including but not limited, lost profits, and suffering damage to its good name, reputation and goodwill.

## RELIEF DEMANDED

WHEREFORE, Plaintiff, individually and on behalf of all others similarly situated, seeks a judgment against Defendant, as follows:
a. For an order certifying the Class under Rule 23 of the Federal Rules of Civil Procedure and naming Plaintiff as representative of the Class and Plaintiff's attorneys as Class

Counsel;
b. For an order declaring that Defendant's conduct violates the statutes referenced herein;
c. For an order finding in favor of Plaintiff and the Class on all counts asserted herein;
d. For compensatory damages measured by lost profit to the Class in an amount to be proved at trial but on information and belief meeting or exceeding $\$ 2.6$ billion;
e. Statutory, and punitive damages in amounts to be determined by the Court and/or jury;
f. For prejudgment interest on all amounts awarded;
g. For an order of restitution and all other forms of equitable monetary relief;
h. For injunctive relief as pled or as the Court may deem proper; and
i. For an order awarding Plaintiff and the Class their reasonable attorneys' fees and expenses and costs of suit.

## JURY TRIAL DEMANDED

Plaintiff demands a trial by jury on all claims so triable.

Dated: February 5, 2024
Respectfully submitted,

/s/ Michael A. Williams<br>Thomas H. Burt<br>Kate McGuire<br>WOLF HALDENSTEIN ADLER FREEMAN \& HERZ LLP<br>270 Madison Avenue<br>New York, New York 10016<br>burt@whafh.com<br>mcguire@whafh.com<br>Tel.: (212) 545-4600<br>Attorneys for Plaintiff

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[^0]:    12 Chart obtained from https://truthaboutpetfood.com/major-error-found-in-new-dcm-study/ (last visited Feb. 2, 2024)

[^1]:    (2) $\square$
    ! May 09 18:13
    To: KetoNatural Pet Foods, Info Show more
    I would like to buy this product but I see that one of the ingredients is peas. I have heard that the peas is no good for dogs. It's causing problems in their heart.

