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6
7 **UNITED STATES DISTRICT COURT**
8 **FOR THE NORTHERN DISTRICT OF CALIFORNIA**
9

10 CENTER FOR FOOD SAFETY, INSTITUTE)
FOR AGRICULTURE AND TRADE POLICY,)
11 CENTER FOR ENVIRONMENTAL HEALTH,)
CENTER FOR BIOLOGICAL DIVERSITY,)
12 FOOD ANIMAL CONCERNS TRUST,)
FOOD AND WATER WATCH, OREGON)
13 PHYSICIANS FOR SOCIAL)
RESPONSIBILITY, HEALTH CARE)
14 WITHOUT HARM, and SAN FRANCISCO)
BAY AREA PHYSICIANS FOR SOCIAL)
15 RESPONSIBILITY,)

16 *Plaintiffs,*)

17 v.)

18 KATHLEEN SEBELIUS, SECRETARY OF)
U.S. DEPARTMENT OF HEALTH AND)
19 HUMAN SERVICES, and MARGARET A.)
HAMBURG, M.D., COMMISSIONER OF U.S.)
20 FOOD AND DRUG ADMINISTRATION,)
21)

22 *Defendants.*)
23
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Case No. 4:13-cv-01975-DMR

**FIRST AMENDED COMPLAINT FOR
DECLARATORY AND INJUNCTIVE
RELIEF**

Administrative Procedure Act Case

INTRODUCTION

1
2 1. This is an action for declaratory and injunctive relief regarding the failure by the
3 United States Food and Drug Administration (FDA or the agency) to respond within a reasonable
4 time to a petition filed by Center for Food Safety and the Institute for Agriculture and Trade
5 Policy (collectively, Petitioners) requesting that FDA revoke all regulations associated with the
6 approval of all New Animal Drug Applications (NADAs) for arsenic-containing compounds
7 used as feed additives in chicken, turkeys, and swine. Petitioners are requesting immediate
8 action because the use of arsenic-based feed additives in food-producing animals poses a serious
9 yet completely avoidable health risk to humans. Petitioners are joined by petition endorsers
10 Center for Environmental Health, Center for Biological Diversity, Food Animal Concerns Trust,
11 Food & Water Watch, Oregon Physicians for Social Responsibility, Health Care Without Harm,
12 and San Francisco Bay Area Physicians for Social Responsibility (collectively, Plaintiffs).

13 2. FDA began approving arsenic-containing compounds for use in animal feed in the
14 1940s. More than seventy years later, arsenic-containing feed additives—namely Roxarsone,
15 arsanilic acid, nitarosone, and carbarsone—are still used in chicken, turkey, and swine production.
16 In 2004 and 2005, Plaintiff Institute for Agriculture and Trade Policy tested for total arsenic
17 residues in retail packages of raw chicken and in “fast food” chicken sandwiches and nuggets.
18 Test results revealed detectable levels of arsenic in the majority of supermarket chicken and in
19 all “fast food” chicken. Arsenic levels in chicken from birds for which there was a claim of “no
20 arsenic given” contained no arsenic or such a small amount that it was below the detection limit.
21 In 2010 and 2011, the Johns Hopkins Center for a Livable Future (CLF) at the Bloomberg
22 School of Public Health analyzed retail chicken breast samples for total and speciated arsenic
23 concentrations. The arsenical Roxarsone was detected in half of the conventional samples, in one
24 of thirteen conventional “antibiotic-free” samples, and in none of the certified organic samples.
25 Inorganic arsenic concentrations were higher in conventional samples than other samples, and were
26 significantly higher in cooked versus raw samples. CLF estimated that consumption of
27 conventionally raised chicken containing inorganic arsenic could result in approximately 3.7
28 additional cases of bladder and/or lung cancer per 100,000 persons with lifetime exposure.

1 These results strongly suggest that the use of arsenic-containing compounds in poultry feed leads
2 to arsenic residues in chicken marketed and eaten in the United States.

3 3. Inorganic arsenic is a known human carcinogen. It can contribute to cancers,
4 heart disease, diabetes, declines in intellectual function, and can decrease a body's ability to
5 respond to viruses. The organic form of arsenic—the form found in arsenic-containing
6 compounds—was once considered safe at low levels. Recent studies show that organic arsenic
7 can easily convert to inorganic arsenic. Further, organic arsenic may also be toxic in its own
8 right, though an earlier history of organic arsenical toxicity has been largely overlooked by FDA.

9 4. On December 8, 2009, Petitioners submitted a petition to FDA for rulemaking.
10 Docket No. FDA-2009-P-0594-0001/CP (2009 Petition) (filed concurrently as Exhibit A).
11 Pursuant to § 360b of the Federal Food, Drug, and Cosmetic Act (FFDCA), the 2009 Petition
12 requested that FDA immediately suspend all approvals of NADAs for arsenic-containing
13 compounds used as feed additives in food-producing animals; publish a Notice of Opportunity
14 for an Evidentiary Hearing concerning new evidence related to the NADAs; upon completion of
15 the hearing, issue an order withdrawing all approvals of arsenic-containing animal feed
16 additives; and revoke all regulations associated with approval of all NADAs for
17 arsenic-containing animal feed additives.

18 5. Since the filing of the 2009 Petition, significant events have occurred that
19 demonstrate both an urgent need and incentive for FDA to use its statutory authority to
20 immediately withdraw approval of arsenic-containing feed additives. In February 2011, FDA
21 completed a final report on a study of the safety of edible tissues from chickens treated with
22 arsenicals, particularly Roxarsone. The study concluded that levels of inorganic arsenic in
23 chicken livers were significantly higher for chickens treated with the arsenical Roxarsone than
24 for chickens not treated with Roxarsone.¹ Shortly following the release of FDA's study, in June
25

26 ¹ U.S. Food and Drug Admin., Final Report on Study 275.30, Provide data on various arsenic
27 species present in broilers treated with roxarsone: Comparison with untreated birds 36
28 (Feb. 10, 2011), *available at* [http://www.fda.gov/downloads/AnimalVeterinary/SafetyHealth/
ProductSafetyInformation/UCM257545.pdf](http://www.fda.gov/downloads/AnimalVeterinary/SafetyHealth/ProductSafetyInformation/UCM257545.pdf).

1 2011, Alparma (a division of Pfizer) announced it would voluntarily suspend—not revoke—
2 sale of Roxarsone within 30 days.² At this time, FDA commented that Roxarsone raised
3 concerns of “completely avoidable exposure to a carcinogen.”³

4 6. Even though Pfizer claims it is not currently selling Roxarsone, and Roxarsone
5 raises concerns of “completely avoidable” exposure to a known carcinogen, FDA has not
6 formally withdrawn Roxarsone from the market—the drug could be returned to the market at any
7 time. Nor has FDA studied the other arsenic-containing compounds referenced in the 2009
8 Petition or evaluated muscle tissue consumed by humans more frequently than chicken livers.
9 No other arsenical drug manufacturers have voluntarily suspended their sales of other arsenicals,
10 even though other arsenicals are just as likely as Roxarsone to convert to inorganic arsenic and to
11 be present in chicken, turkey, or swine. FDA’s failure to act has completely failed to close the
12 loop on an avoidable exposure pathway to a known carcinogen.

13 7. Nearly three and a half years have now passed since FDA docketed the 2009
14 Petition for rulemaking. Not only has FDA failed to act under the FFDCA, the agency has not
15 meaningfully responded to the 2009 Petition and is in violation of the Administrative Procedure
16 Act (APA). In the interim, evidence of the negative effects of arsenic-based feed additives
17 continues to mount. This Court should order the agency to respond to Plaintiffs’ 2009 Petition
18 without further unlawful delay.

19 JURISDICTION

20 8. This Court has jurisdiction over this action pursuant to 28 U.S.C. § 1331 (federal
21 question) and 28 U.S.C. § 1346 (United States as defendant).

22 9. The relief requested is specifically authorized pursuant to 28 U.S.C. § 1651
23 (writs) and 28 U.S.C. §§ 2201–02 (declaratory relief). An actual controversy exists between the
24 parties within the meaning of 28 U.S.C. § 2201 (declaratory judgments).

26 ² Press Release, U.S. Food and Drug Admin., FDA: Pfizer will voluntarily suspend sale of
27 animal drug 3-Nitro (June 8, 2011), *available at* [http://www.fda.gov/NewsEvents/Newsroom/
PressAnnouncements/ucm258342.htm](http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm258342.htm).

28 ³ *Id.* (emphasis added).

1 10. Plaintiffs have a right to bring this action pursuant to the APA, 5 U.S.C. § 702.

2 **VENUE**

3 11. Venue properly lies in this Court pursuant to 28 U.S.C. § 1391(e) because one or
4 more of the Plaintiffs reside in this District.

5 **PARTIES**

6 12. Plaintiff Center for Food Safety (CFS) is a Washington, D.C.-based nonprofit
7 organization located at 660 Pennsylvania Avenue S.E., Washington, D.C. 20003. CFS has
8 nearly 300,000 members, including members in every state across the country, many of whom
9 purchase and consume chicken, turkey, and pork that were fed arsenic-based feed additives, and
10 eggs from chickens that were fed arsenic-based feed additives. CFS and its members are being,
11 and will be, adversely affected by FDA's continued failure to address the risks associated with
12 the use of arsenic-based feed additives.

13 13. Founded in 1997, CFS is dedicated to addressing the environmental, economic,
14 ethical, human health, and social impacts associated with the development and
15 commercialization of agricultural and food processing technologies. CFS combines multiple
16 tools and strategies in pursuing its goals, including litigation and legal petitions for rulemaking,
17 legal support for various sustainable agriculture and food safety constituencies, public education,
18 grassroots organizing, and media outreach. CFS is actively involved in the campaign against the
19 use of antimicrobials in food animal production and has specifically focused on arsenic-based
20 feed additives since 2008. CFS members support enhanced animal welfare and regularly
21 purchase organic products, including organic meat and dairy, due to concerns about the use of
22 antimicrobials like arsenic in animal production. CFS and its members believe it is imperative
23 that FDA promote a cautious approach to the use of arsenic-based feed additives and other
24 antimicrobials in food in order to protect human health.

25 14. CFS also sends action alerts to its membership. These action alerts generate
26 public involvement, education, and engagement with governmental officials on issues related to
27 fighting the health and environmental impacts of industrial agriculture and promoting a more
28 sustainable, healthier food system. Collectively, the dissemination of this material has made

1 CFS an information clearinghouse for public involvement and governmental oversight of food
2 safety issues.

3 15. Plaintiff Institute for Agriculture and Trade Policy (IATP) is a 501(c)(3) nonprofit
4 organization located at 2105 First Avenue South, Minneapolis, Minnesota 55404. Established in
5 1986, IATP works locally and globally at the intersection of policy and practice to ensure fair
6 and sustainable food, farm, and trade systems. In 2006, IATP issued a groundbreaking report,
7 *Playing Chicken: Avoiding Arsenic in Your Meat*, examining arsenic residues in retail chicken
8 meat purchased in supermarkets as well as chicken products from “fast food” outlets. Prior to
9 this report, FDA had never tested for the presence of arsenic in chicken muscle, only in chicken
10 liver on a limited basis.

11 16. Plaintiff Center for Environmental Health (CEH) is located at 528 61st Street,
12 Suite A, Oakland, California 94609. Founded in 1996, CEH is a nonprofit organization
13 dedicated to protecting the public from environmental and consumer health hazards. CEH is
14 committed to environmental justice, reducing the use of toxic chemicals and practices,
15 supporting communities in their quest for a safer environment, and corporate accountability.
16 CEH programs have eliminated health threats to children from pesticides on our food,
17 contamination from lead in imported candies, Polychlorinated Biphenyls (PCBs) in farmed
18 salmon, contamination from harmful chemicals in food packaging, and other food safety threats.

19 17. Plaintiff Center for Biological Diversity (the Center) is a nonprofit public interest
20 corporation with over 41,000 members and offices throughout the United States. The Center has
21 offices in several locations, including Tucson, Arizona; San Francisco, Los Angeles, and Joshua
22 Tree, California; Portland, Oregon; Silver City, New Mexico; and Washington, D.C. The Center
23 and its members are dedicated to protecting the diverse native species and habitats of North
24 America through science, policy, education, and environmental law. Members of the Center
25 reside or own property and use waterways and environments throughout the United States that
26 are impacted by pollution from animal feeding operations.

27 18. The Center’s Toxics and Endangered Species Campaign employs a broad range of
28 tools to reduce the harmful impacts of toxic contamination from man-made pollution, industrial
chemicals, and resource-extractive processes. Through strategic litigation, creative media, policy

1 advocacy, scientific reports, coalition building, and outreach to our members, the Center has
2 mounted an effective campaign to target some of the most harmful toxins in our environment.

3 19. Plaintiff Food Animal Concerns Trust (FACT) is a nonprofit organization located
4 at 3525 W. Peterson Avenue, Suite 213, Chicago, Illinois, 60659-3314. FACT is dedicated to
5 improving the welfare of farm animals; addressing public health problems such as the safety of
6 meat, milk, and eggs; broadening opportunities for family farmers; and reducing environmental
7 pollution. FACT has an active Public Health Program that identifies and advocates for steps
8 farmers should take to keep their cattle, pigs, turkeys, and chickens from being the cause of
9 human disease. FACT supports appropriate food safety regulation of farms where animals are
10 raised to produce meat, milk, and eggs. An important part of FACT's public health work is to
11 advocate for actions that reduce the risk that animal products are contaminated by unsafe
12 residues of veterinary drugs including arsenic. FACT does this domestically through
13 engagement with FDA and internationally by participating in the Codex Committee on Residues
14 of Veterinary Drugs in Food.

15 20. Plaintiff Food & Water Watch (FWW) is a national nonprofit public interest
16 consumer advocacy organization located at 1616 P Street NW, Suite 300, Washington, D.C.
17 20036, with offices throughout the United States, including New York City, New York, and San
18 Francisco, California. FWW advocates for common sense policies that will result in healthy,
19 safe food and access to safe and affordable drinking water. FWW helps people take charge of
20 where their food comes from; keeps clean, affordable, public tap water flowing freely to our
21 homes; protects the environmental quality of oceans; forces government to do its job protecting
22 citizens; and educates about the importance of keeping the global commons—our shared
23 resources—under public control. To that end, FWW has advocated against various government
24 proposals and policies that would limit consumers' right to healthy and safe products, and
25 negatively impact human health and the overall environment. Specifically on the issue of
26 arsenic, FWW worked for several years in Maryland to support passage of a bill that bans the use
27 of Roxarsone. The bill passed in 2012. FWW has also worked for several years to educate the
28 public about the need for changes to public policy on animal drugs including antibiotics and
arsenicals.

1 21. Plaintiff Oregon Physicians for Social Responsibility (OPSR) is located at 812
2 SW Washington Street, Suite 1050, Portland, Oregon 97205. It was founded in 1980 as a
3 regional chapter of Physicians for Social Responsibility. Guided by the values and expertise of
4 medicine and public health, OPSR works to protect human life from the gravest threats to health
5 and survival by striving to end the nuclear threat, advance environmental health, and promote
6 peace.

7 22. Plaintiff Health Care Without Harm (HCWH), founded in 1996, has offices in
8 Reston, Virginia, and worldwide. HCWH works to implement ecologically sound and healthy
9 alternatives to health care practices that pollute the environment and contribute to disease.

10 23. Since 2005 OPSR has partnered with HCWH on its Oregon Healthy Food in
11 Health Care Project (the Project). The Project employs market-based forces to increase demand
12 for sustainably-produced foods, improve hospital food quality, educate the public, and bolster the
13 local economy. The principal goal of the Project is to leverage the significant purchasing power
14 and influence of hospitals to support regional markets for sustainable food and to model healthy
15 food choices to the public. The Project provides resources, tools, education, and technical
16 assistance to hospital food service departments. Together, OPSR and HCWH have addressed the
17 issue of antimicrobials, and specifically arsenical usage, in poultry production by supporting
18 greater understanding of the environmental health consequences of the practice and then helping
19 institutional food buyers to seek information from their suppliers to make informed purchasing
20 decisions.

21 24. Plaintiff San Francisco Bay Area Chapter of Physicians for Social Responsibility
22 (SF PSR), founded in 1979, was the first chapter of Physicians for Social Responsibility to be
23 organized in the country and remains one of the largest of the thirty-one U.S. chapters, with over
24 2000 members. Physicians for Social Responsibility is a nonprofit advocacy organization that
25 combines the power of community activism with the knowledge and credibility of physicians
26 and other health professionals to promote public policies that support human health. SF PSR is
27 the preeminent medical and public health voice in the San Francisco region on a broad range of
28 critical social and environmental health issues, including building a healthier food system.

1 SF PSR coordinates the Healthy Food in Health Care program in California, a nationwide
2 program of Health Care Without Harm that harnesses the purchasing power and expertise of the
3 health care sector to advance the development of a sustainable food system. Through advocacy
4 and education, SF PSR motivates health care facilities to implement programs that explicitly
5 connect all aspects of the food system with health. SF PSR catalyzes sustainable procurement
6 efforts; organizes clinicians to advocate for local, regional, and national food policy; and inspires
7 health care institutions to become leaders in shaping a food system that supports
8 prevention-based health care.

9 25. Defendant Kathleen Sebelius is the Secretary of the United States Department of
10 Health and Human Services, and is sued in her official capacity.

11 26. Defendant Dr. Margaret A. Hamburg is sued in her official capacity as FDA
12 Commissioner. As Commissioner, Dr. Hamburg has the ultimate responsibility for FDA's
13 activities and policies.

14 27. Dr. Hamburg and the Food and Drug Administration are collectively referred to
15 herein as "FDA" or "the agency."

16 **LEGAL BACKGROUND**

17 ***Federal Food, Drug, and Cosmetic Act***

18 28. The Secretary of the U.S. Department of Health and Human Services, "through
19 the Commissioner" of FDA, 21 U.S.C. § 393(d)(2), regulates antimicrobials in animal feed as
20 "new animal drugs" under the FFDCFA, *id.* § 360b.

21 29. Under FFDCFA § 360b, the Secretary shall, after due notice and opportunity for
22 hearing to the applicant, issue an order withdrawing approval of a new animal drug if the
23 Secretary finds:

- 24 A) "[E]xperience or scientific data show that such drug is unsafe for use under the
25 conditions of use upon the basis of which the application was approved or the
26 condition of use authorized under subsection (a)(4)(A)," *id.* § 360b(e)(1)(A);

1 B) New evidence, tests, or methods developed since approval of the application show
2 that the drug is not safe for use “under the conditions of use upon the basis of
3 which the application was approved,” *id.* § 360b(e)(1)(B); or

4 C) New information, combined with the evidence available at the time the
5 application was approved, shows a “lack of substantial evidence that such drug
6 will have the effect it purports or is represented to have under the conditions of
7 use prescribed, recommended, or suggested in the labeling thereof,” *id.*
8 § 360b(e)(1)(C).

9 ***FDA Regulations on Citizen Petitions***

10 30. FDA’s regulations provide that citizens may petition FDA to “issue, amend, or
11 revoke a regulation or order, or to take or refrain from taking any other form of administrative
12 action.” 21 C.F.R. § 10.25.

13 31. “The Commissioner shall . . . rule upon each petition . . .” *Id.* § 10.30(e)(1).

14 32. “[T]he Commissioner shall furnish a response to each petitioner within 180 days
15 of receipt of the petition” by approving, denying, or providing a tentative response to the
16 petition, “indicating why the agency has been unable to reach a decision on the petition. . . .”
17 *Id.* § 10.30(e)(2). “The tentative response may also indicate the likely ultimate agency response,
18 and may specify when a final response may be furnished.” *Id.*

19 33. “The Commissioner may grant or deny such a petition, in whole or in part, and
20 may grant such other relief or take other action as the petition warrants. The petitioner is to be
21 notified in writing of the Commissioner’s decision.” *Id.* § 10.30(e)(3).

22 ***Administrative Procedure Act***

23 34. Under the APA, agencies are required to “give an interested person the right to
24 petition for the issuance, amendment, or repeal of a rule.” 5 U.S.C. § 553(e).

25 35. The APA requires an agency to conclude a matter presented to it “within a
26 reasonable time.” *Id.* § 555(b). “Prompt notice shall be given of the denial [of a petition] in
27 whole or in part. . . .” *Id.* § 555(e).

28 36. The APA grants a right of judicial review to “[a] person suffering legal wrong

1 because of agency action, or adversely affected or aggrieved by agency action.” *Id.* § 702.

2 37. Courts “shall compel agency action unlawfully withheld or unreasonably
3 delayed,” *id.* § 706(1), and “hold unlawful and set aside agency action, findings, and conclusions
4 found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with
5 law,” *id.* § 706(2)(A). Courts may only review a final agency action, *id.* § 704, and “agency
6 action” includes a “failure to act,” *id.* § 551(13).

7 **STATEMENT OF FACTS**

8 ***Arsenic***

9 38. Arsenic is a semi-metal element in the periodic table. It is odorless and tasteless.
10 Arsenic occurs naturally in the environment as an element of the earth’s crust; it is found in
11 rocks, soil, water, air, plants and animals. It can be further released into the environment through
12 natural activities such as volcanic action, erosion of rocks, and forest fires, or through human
13 actions. Elemental arsenic is combined with other elements such as oxygen, chlorine, and sulfur
14 to form inorganic arsenic compounds.

15 39. Historically, arsenic compounds were used in many industries, including: as a
16 preservative in pressure treated lumber; as a preservative in animal hides; as an additive to lead
17 and copper for hardening; in glass manufacturing; in pesticides; in animal agriculture; and as
18 arsine gas to enhance junctions in semiconductors. The United States has cancelled the
19 approvals of some of these uses, such as arsenic-based pesticides, for health and safety reasons.
20 Some of these cancellations were based on voluntary withdrawals by producers. For example,
21 manufacturers of arsenic-based wood preservatives voluntarily withdrew their products in 2003
22 due to safety concerns, and the United States Environmental Protection Agency (EPA) signed the
23 cancellation order. In the Notice of Cancellation Order, EPA stated that it considered the
24 voluntary move a positive step, especially for the nation’s children. “[EPA] believes that
25 reducing the potential residential exposure to a known human carcinogen is desirable.”⁴

26
27 ⁴ Response to Requests to Cancel Certain Chromated Copper Arsenate (CCA) Wood
28 Preservative Products and Amendments to Terminate Certain Uses of other CCA Products,
68 Fed. Reg. 17366, 17367 (Apr. 9, 2003).

1 40. Arsenic is an element—it does not degrade or disappear. Therefore, despite
2 efforts to reduce the amount of arsenic in the environment, residual arsenic remains.

3 ***Arsenic-Based Feed Additives***

4 41. Arsenic is widely used in animal agriculture, contributing to the overall arsenic
5 burden. FDA first approved the use of an arsenic-containing compound, Roxarsone, for use in
6 animal production in 1944. Since then, FDA has approved more than 100 different arsenical
7 compounds for use in broiler chickens alone.

8 42. Arsenic-containing compounds are most widely used in chicken production.
9 According to data from the United States Department of Agriculture (USDA), 8,428,847,000
10 chickens were killed for food in the United States in 2012 alone.

11 43. In 2002, an estimated seventy percent of chickens were fed arsenic-containing
12 compounds at some point in their lives.⁵

13 44. Chicken production has changed significantly in the last sixty years. Almost all
14 chickens are now raised indoors. A modern broiler house is typically a single story facility,
15 approximately forty feet wide by 400–500 feet long that holds 25,000 to 30,000 birds. A modern
16 broiler “farm” generally has two to six such houses, with up to 150,000 birds or more. Inside
17 these facilities, animals compete for space, food, and water; breathe contaminated air; and live in
18 their own waste. Conditions of overcrowding and poor sanitation significantly increase the
19 chance of large outbreaks of zoonotic diseases in large chicken operations. The relentless drive
20 to produce more animals in less time, with less space, and at a lower cost is what lies behind the
21 routine addition of antimicrobial drugs such as arsenicals to animal feeds.

22 45. Arsenic-containing feed additives are approved for both non-therapeutic and
23 therapeutic uses. The thousands of animal feeding operations in the U.S. can use
24 arsenic-containing feed additives for non-therapeutic reasons, such as to increase weight gain,
25 improve feed efficiency, and improve pigmentation in animals, 21 C.F.R. § 558.530, or to

26
27 ⁵ See 21 C.F.R. §§ 558.35-558.680; H.D. Chapman, Z.B. Johnson, *Use of Antibiotics and*
28 *Roxarsone in Broiler Chickens in the USA: Analysis for the Years 1995 to 2000*, 81 *Poultry Sci.*
356, 356-64 (2002).

1 prevent and control disease among animals that are raised in crowded, stress-inducing conditions
2 that promote disease.

3 46. Arsenic, like other antimicrobials, is added to animal feed without a prescription.
4 Most food-producing animals receive multiple drugs in their feed or drinking water for the
5 majority of their lives. For example, broiler chickens are fed pre-starter, starter, and grower
6 feeds containing up to three drug components: an antibiotic to promote growth, an arsenical, and
7 an anti-parasite drug. Finisher feed also contains an antibiotic and arsenical, although arsenic is
8 prohibited the last five days of a broiler's short life.

9 47. While FDA approves proposed arsenical uses, it does not collect data on arsenical
10 sales or use. The most recent data available indicates that in 2010, 706,530 kilograms (kg) of
11 arsenicals were sold for use in food-producing animals.

12 ***Arsenic Residue Testing***

13 48. The U.S. approach to food safety generally does not aim to keep chemical
14 contaminants completely out of the food supply—even cancer-causing arsenic. Rather, FDA
15 determines the maximum exposure to that chemical deemed to be “safe,” and then legally allows
16 contamination of a particular food product up to the level of consumption that FDA believes
17 results in maximum “safe” exposure (food tolerance residue levels).

18 49. For enforcement of food tolerance residue levels, FDA relies on USDA's Food
19 Safety Inspection Service (FSIS). The cornerstone of FSIS's effort is the National Residue
20 Program, which since 1970 has monitored chemical residues in food. According to USDA's
21 “Red Book” data, FSIS conducts very little testing of more commonly consumed poultry and
22 pork products. For example, in 2001, FSIS analyzed just 1,207 of the more than eight billion
23 young chickens produced for total arsenic, and then only chicken kidneys and livers, not the
24 muscle meat that most humans consume.⁶ In 2009, FSIS tested just 324 young chickens—more
25
26

27
28 ⁶ USDA, FSIS, 2001 FSIS National Residue Program Data, *available at*
http://www.fsis.usda.gov/OPHS/red_book_2001/2001_Residue_Program_Data_Sections1-7.pdf.

1 than twenty-five percent of these chickens tested positive for arsenic residue.⁷ In 2010, the most
2 recent year for which the public has data, FSIS did not analyze chickens for total arsenic at all.
3 FSIS residue testing is the only “protection” American consumers have against arsenic exposure
4 from contaminated meat, yet residue testing is weak and funding for the FSIS National Residue
5 Program is, and has been over the years, unstable. The function of FSIS testing is only to
6 monitor the problem; it does not prevent or correct it.

7 50. Such sparse FSIS testing was the impetus for Plaintiff IATP’s 2004 and 2005
8 independent residue testing and subsequent report. Plaintiff IATP tested for total arsenic in retail
9 packages of raw chicken and “fast food” chicken sandwiches and nuggets. The results suggest
10 that the use of arsenic-containing compounds in poultry feed leads to arsenic residues in chicken
11 marketed and eaten in the United States.

12 51. In retail packages of raw chicken, IATP tested thighs, breasts, and livers
13 purchased under both “conventional” and “premium” labels. IATP tested chicken from five of
14 the top twenty-five broiler producers nationally, several premium brands, and one kosher/halal
15 brand. Test results revealed detectable levels of arsenic in the majority—fifty-five percent—of
16 supermarket chicken.

17 52. Plaintiff IATP also tested ninety samples of cooked “fast food” chicken. The tests
18 revealed detectable levels of total arsenic in 100 percent of the samples tested.

19 53. A study released on May 10, 2013, by researchers at the Johns Hopkins Center for
20 a Livable Future at the Bloomberg School of Public Health (the 2013 Study) confirms that
21 arsenic-containing compounds and inorganic arsenic are present in both raw and cooked chicken
22 breast.⁸ The 2013 Study tested for arsenic in retail chicken breast samples purchased between
23 December 2010 and June 2011. In retail packages of raw chicken, the study tested breasts sold
24 under conventional, organic, and conventional “antibiotic-free” labels. The test included sixty
25

26 ⁷ USDA, FSIS, United States National Residue Program 2009 Residue Sample Results
(May 2011), *available at* http://www.fsis.usda.gov/PDF/2009_Red_Book.pdf.

27 ⁸ Keeve E. Nachman, et al., *Roxarsone, Inorganic Arsenic, and Other Arsenic Species*
28 *in Chicken: A U.S.-Based Market Basket Sample*, *Envtl. Health Persp.* (2013), *available at*
<http://ehp.niehs.nih.gov/wp-content/uploads/121/5/ehp.1206245.pdf>.

1 unique chicken brands acquired from eighty-two stores (forty-seven supermarket chains).

2 54. The 2013 Study revealed that Roxarsone was present at detectable levels in twenty
3 out of forty conventional chicken meat samples, yet only one of thirteen conventional
4 “antibiotic-free” samples, and none of twenty-five organic samples. Conventional samples had
5 higher inorganic arsenic concentrations than the conventional “antibiotic-free” and organic
6 samples; in the meat with detectable Roxarsone levels, levels of inorganic arsenic were four
7 times higher than the levels in organic samples.

8 55. The 2013 Study showed that when Roxarsone was present in raw meat, cooking
9 decreased the levels of Roxarsone and increased the levels of inorganic arsenic. Total arsenic
10 and inorganic arsenic concentrations were significantly higher in cooked meat samples than raw
11 meat samples.

12 56. These results of the 2013 Study strongly suggest that the use of arsenic-containing
13 compounds in poultry feed contributes to dietary inorganic arsenic exposure in consumers of
14 conventionally-produced chickens.

15 ***The Health Effects of Arsenic***

16 57. Inorganic arsenic is a known cause of human cancer. The association between
17 inorganic arsenic and cancer is well documented. As early as 1879, high rates of lung cancer in
18 Saxony miners were attributed in part to inhaled arsenic. By 1992, the combination of evidence
19 from Taiwan and elsewhere was sufficient to conclude that ingested inorganic arsenic, such as is
20 found in contaminated drinking water and food, was likely to increase the incidence of several
21 internal cancers. The scientific link to skin and lung cancers is particularly strong and
22 longstanding,⁹ and evidence supports conclusions that arsenic may cause liver, bladder, kidney,
23 and colon cancers as well. Under the law, FDA is restricted from approving substances
24 (including animal drugs) found to induce cancer. 21 U.S.C. § 360b(d)(1)(I). The 2013 Study
25

26 ⁹ See, e.g., Int’l Agency for Research on Cancer, World Health Organization, *Some Metals and*
27 *Metalloid Compounds: Summary of Data Reported and Evaluation*, 23 IARC Monographs on
28 the Evaluation of Carcinogenic Risks to Humans 39 (1980), available at
<http://monographs.iarc.fr/ENG/Monographs/vol23/volume23.pdf>.

1 provides “strong evidence” that arsenic use in poultry production results in increased inorganic
2 arsenic concentrations in chicken meat.

3 58. At one time, organic arsenic was considered less toxic than inorganic arsenic,
4 carrying fewer health concerns. Recent science reveals, however, that organic and inorganic
5 forms of arsenic can convert to one another in the body and in the environment. Organic arsenic
6 can convert to inorganic arsenic once ingested by humans and animals. Environmental bacteria,
7 including those residing in chicken litter, as well as in the bacterial microflora of the human or
8 chicken gut, convert organic arsenic into inorganic forms, such as arsenate, As(V), and arsenite,
9 As(III), which are classified as human carcinogens and are therefore potentially more toxic than
10 the parent compound.¹⁰ Further, some organic forms of arsenic created by the body’s
11 metabolism appear to be more toxic than inorganic arsenic.

12 59. A variety of studies in cells demonstrate that exposure to infinitesimally small
13 (nanomolar to low micromolar) concentrations of arsenite stimulates a process of new blood
14 vessel formation called angiogenesis, associated with vascular disease as well as the growth of
15 new tumors.¹¹ In addition to enhancing tumor growth, increased angiogenesis would contribute
16 to overall growth potential and increased tissue pigmentation—exactly the attributes sought in
17 arsenic-containing compounds’ use as a poultry feed additive. Despite arsenic’s direct links to
18 cancer, and its use over seventy years in animal agriculture, the effects of arsenic-containing
19 compounds on mammalian cells have not been greatly studied. In one exception, human cells
20 from vascular and lung tissue were studied following exposure to the arsenic-containing
21

22 ¹⁰ A.J. Bednar et al., *Photodegradation of Roxarsone in Poultry Litter Leachates*, 302 *Sci. Total*
23 *Env’t* 237, 237-245 (2002); J.R. Garbarino et al., *Environmental fate of roxarsone in poultry*
24 *litter. I. Degradation of roxarsone during composting*, 37 *Envtl. Sci. & Tech.* 1509, 1509-14
(2003); John F. Stolz et al., *Biotransformation of 3-Nitro-4-Hydroxybenzene Arsonic Acid and*
25 *Release of Inorganic Arsenic by Clostridium Species*, 41 *Envtl. Sci. & Tech.* 818, 818-23 (2007).

26 ¹¹ Chandrashekar D. Kamat et al., *Role of HIF Signaling on Tumorigenesis in Response to*
27 *Chronic Low-dose Arsenic Administration*, 86 *Toxicological Sci.* 248, 248–57 (2005); Bing Liu
28 et al., *Opposing Effects of Arsenic Trioxide on Hepatocellular Carcinomas in Mice*, 97 *Cancer*
Sci. 675, 675-81 (2006); Nicole V. Soucy et al., *Arsenic Stimulates Angiogenesis and*
Tumorigenesis in Vivo, 76 *Toxicological Sci.* 271, 271–79 (2003); Nicole V. Soucy et al.,
Neovascularization and Angiogenic Gene Expression Following Chronic Arsenic Exposure in
Mice, 5 *Cardiovascular Toxicology* 29, 29-41 (2005).

1 compound Roxarsone.¹² The study found that like arsenite, As(III), Roxarsone induces an
2 increase in angiogenesis, but it does so more potently. Moreover, Roxarsone acts via a
3 mechanism that is distinct from and independent of the one induced by As(III). In other words,
4 Roxarsone use and exposure could potentially promote angiogenesis—a key element of cancer
5 tumor growth—via two independent processes, one via conversion to As(III), and another via a
6 more direct mechanism.

7 60. The United States population is regularly exposed to a cumulative burden of
8 arsenic. For example, drinking water is a major source of arsenic exposure.¹³ EPA thus sets an
9 enforceable regulation for arsenic, called a maximum contaminant level (MCL). Recognizing
10 the health problems of arsenic in drinking water, EPA in 2001 lowered the MCL from fifty parts
11 per billion (ppb) to ten ppb. The National Academies of Science estimate that Americans who
12 drink water contaminated with arsenic at the ten ppb level—numbering thirteen million in
13 2001—have a greater than 1-in-300 risk of developing cancer during their lifetime.

14 61. While EPA has set an MCL for arsenic in water, there is no similar maximum
15 exposure level for apple juice, which is also known to contain high levels of arsenic. In response
16 to studies showing that apple juice regularly contains high levels of arsenic, and in an effort to
17 limit arsenic in apple juice, in 2012 United States Representatives Frank Pallone and Rosa
18 DeLauro introduced H.R. 3984, the “Arsenic Prevention and Protection from Lead Exposure in
19 Juice Act of 2012,” otherwise known as the “APPLE Juice Act of 2012.” The legislation would
20 require FDA to establish arsenic and lead standards for fruit juices within two years.¹⁴

21 62. Arsenic is also pervasive in food. Arsenic is most commonly found in rice,
22 seaweed, seafood, infant formulas containing brown rice syrup, and of course, meat. In 2011,
23 tests performed by Dartmouth College’s Children’s Environmental Health and Disease
24

25 ¹² Partha Basu et al., *Angiogenic Potential of 3-Nitro-4-Hydroxy Benzene Arsonic Acid*
26 (*Roxarsone*), 116 *Envtl. Health Persp.* 520, 520-23 (2008).

27 ¹³ See Press Release, U.S. Food and Drug Admin., FDA Warns Again About Arsenic in Mineral
28 Water (Mar. 24, 2007), available at [http://www.fda.gov/NewsEvents/Newsroom/
PressAnnouncements/2007/ucm108875.htm](http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/2007/ucm108875.htm).

¹⁴ See H.R. 3984, 112th Cong. (2012).

1 Prevention Center indicated that consuming slightly more than half a cup of cooked rice per day
2 resulted in total urinary arsenic concentrations nearly equal to consuming a liter of water
3 containing the maximum amount of arsenic allowable in public drinking water. Notably,
4 American-grown rice contains 1.4 to 5 times more arsenic on average than rice from Europe,
5 India, and Bangladesh.

6 63. The several million Americans who currently drink water contaminated at the ten
7 ppb EPA standard, and/or eat certain foods with a high level of arsenic, are at an increased
8 cancer risk from their additional arsenic exposure from meat produced with arsenic-based feed
9 additives.

10 64. In 2010, the European Food Safety Authority (EFSA) issued warnings to
11 consumers about the risks of inorganic arsenic in food.¹⁵ Based on new science on the health
12 risks of arsenic exposure in food, the EFSA panel on contaminants in the food chain (CONTAM)
13 recommended that consumers reduce dietary exposure to inorganic arsenic. CONTAM found
14 that consumers of large amounts of rice, such as certain ethnic groups, and consumers of
15 algae-based products are especially at risk of increased arsenic exposure.

16 65. Arsenic is not poisonous to everyone to the same degree. Children, infants, and
17 the human fetus are among those most vulnerable to arsenic's toxic effects. This is due to
18 differences in arsenic metabolism between an adult and those very early in life. Moreover,
19 arsenic and its organic metabolites easily pass through the placenta.¹⁶ Carcinogens like arsenic
20 are generally more potent in their early life exposures. Following its review of twenty-three
21 peer-reviewed studies of cancer incidence over the past fifty years, EPA concluded that infants
22 up to age two are, on average, ten times more vulnerable to carcinogenic chemicals than adults,
23 and for some cancer-causing agents are up to sixty-five times more vulnerable; children ages two

24
25 ¹⁵ European Food Safety Auth. Panel on Contaminants in the Food Chain, European Food
26 Safety Auth. (EFSA), *Scientific Opinion on Arsenic in Food*, 7 EFSA Journal 1351 (2009),
27 available at <http://www.efsa.europa.eu/en/efsajournal/doc/1351.pdf>.

28 ¹⁶ Subcomm. to Update the 1999 Arsenic in Drinking Water Report et al., Nat'l Research
Council, *Arsenic in Drinking Water: 2001 Update* (National Academy Press 2001), available at
http://www.nap.edu/catalog.php?record_id=10194; M. Nathaniel Mead, *Arsenic: In Search of an
Antidote to a Global Poison*, 113 *Env'tl. Health Persp.* A378, A378-86 (2005).

1 to five are three times more vulnerable to carcinogens than adults.¹⁷

2 66. An increased risk of cancer is not the only adverse impact of arsenic. Arsenic
3 affects nearly all organ systems because it targets ubiquitous enzyme reactions in cells.¹⁸ Studies
4 of in utero exposure to arsenic indicate that early life exposures to compounds can alter
5 susceptibility of endocrine and reproductive organs. Long-term exposure to arsenic can also
6 cause hyperpigmented skin, skin nodules, vessel disease, and appears to heighten the risk of
7 death from high blood pressure and heart disease. Humans repeatedly exposed to arsenic also
8 have an increased risk of diabetes.¹⁹

9 67. Scientists continue to discover new and increasingly dangerous health impacts not
10 previously considered from arsenic exposure. Identification of many of these factors post-date
11 FDA's approval of arsenicals as new animal drugs. For example, evidence now indicates that
12 arsenic is a potent disruptor of hormone function, altering the way in which hormones transmit
13 information between cells at extremely low levels of exposure.²⁰ Recently, a delayed response in
14 developing immunity to the H1N1 virus was attributed to arsenic exposure in drinking water.²¹

15 68. The United States population's meat consumption is at a record high. With this
16 increased consumption comes an increased exposure to arsenic. Chicken, pork, and turkey
17 represent the first, third, and fourth most heavily-consumed foods in the United States. Chicken
18

19 ¹⁷ Risk Assessment Forum Technical Panel, U.S. Env'tl. Prot. Agency, *Supplemental Guidance*
20 *for Assessing Cancer Susceptibility from Early-Life Exposure to Carcinogens*, EPA/630/R-
03/003F (Mar. 2005), available at http://www.epa.gov/ttnatw01/childrens_supplement_final.pdf.

21 ¹⁸ Subcomm. on Arsenic in Drinking Water et al., Nat'l Research Council, *Arsenic in Drinking*
22 *Water* (National Academy Press 1999), available at
http://www.nap.edu/catalog.php?record_id=6444; Subcomm. to Update the 1999 Arsenic in
23 *Drinking Water Report* et al., *supra* note 16.

24 ¹⁹ Subcomm. on Arsenic in Drinking Water et al., *supra* note 18; Subcomm. to Update the 1999
25 *Arsenic in Drinking Water Report* et al., *supra* note 16.

26 ²⁰ M. Nathaniel Mead, *supra* note 16; Ronald C. Kaltreider et al., *Arsenic Alters the Function of*
27 *the Glucocorticoid Receptor as a Transcription Factor*, 109 *Env'tl. Health Persp.* 245, 245-51
28 (2001); Jack E. Bodwell et al., *Arsenic at Very Low Concentrations Alters Glucocorticoid*
Receptor (GR)-Mediated Gene Activation but not GR-Mediated Gene Repression: Complex
Dose-Response Effects Are Closely Correlated with Levels of Activated GR and Require a
Functional GR DNA Binding Domain, 17 *Chem. Research in Toxicology* 1064 (2004).

²¹ Courtney D. Kozul et al., *Low-dose Arsenic Compromises the Immune Response to Influenza*
A Infection in Vivo, 117 *Env'tl. Health Persp.* 1441, 1441-47 (2009).

1 represents an increased risk from meat due to the sheer volume of consumption. From 1966 to
2 2000, annual chicken consumption rose 253 percent, from 32.1 to 81.2 pounds per person.²²
3 Many people are not average, however. USDA data indicate that African Americans eat about
4 twenty percent more chicken than does the United States population as a whole. Similarly, due
5 to their small size, toddlers eating chicken baby food may ingest chicken at substantially
6 higher-than-average levels, on a weight-adjusted basis. For these subgroups, arsenic ingestion
7 from contaminated chicken may be substantially higher than average. One in 100 Americans
8 now eats more than three-quarters of a pound (>350 grams) of chicken per day. This person
9 could be expected to ingest 32.5 to 47.07 micrograms of total arsenic per day from chicken
10 alone. One in 1000 Americans eats at least one and one-third pounds of chicken per day. For an
11 average-sized person, this could translate into 56.8 to 82.3 micrograms of total arsenic per day,
12 more arsenic than the average American is estimated to receive from *all* dietary sources.²³

13 69. The 2013 Study found, based on the test results discussed *supra* and EPA's
14 proposed cancer slope factor for inorganic arsenic, that conventional chicken consumers' average
15 daily exposure to arsenic would result in approximately 3.7 additional cases of bladder and/or
16 lung cancer per 100,000 persons with lifetime exposure. When applied to the United States
17 population in 2011, the 2013 Study suggests that industry-wide use of arsenical drugs will result
18 in 8,661 additional cases of cancer over seventy years, or an average of 124 additional cancers
19 per year. This does not account for consumers with higher than average rates of chicken
20 consumption.

21 ***Arsenic and the Environment***

22 70. Agency-approved arsenicals used in poultry production likely have indirect
23 human and environmental impacts beyond the direct effects of ingesting arsenic residues in meat.

25 ²² David A. Taylor, *Funky Chicken: Consumers Exposed to Arsenic in Poultry*, 112 *Envtl.*
26 *Health Persp.* A50, A50-51 (2004) (reviewing Tamar Lasky et al., *Mean Total Arsenic*
27 *Concentrations in Chicken 1989-2000 and Estimated Exposures for Consumers of Chicken*, 112
Envtl. Health Persp. 18, 18-21 (2004)).

28 ²³ Tamar Lasky et al., *Mean Total Arsenic Concentrations in Chicken 1989-2000 and Estimated*
Exposures for Consumers of Chicken, 112 *Envtl. Health Persp.* 18, 18-21 (2004).

1 The 8.5 billion broiler chickens raised in the United States each year generate twenty-five to
 2 fifty-five billion pounds of poultry litter or waste.²⁴ For example, of the approximately 1.5
 3 million pounds of arsenic-containing compounds fed to animals in 2010—mostly chickens—up
 4 to an estimated three-quarters passed unchanged into poultry waste.

5 71. Poultry litter disposal occurs in several different ways. Around ninety percent is
 6 applied to nearby fields and cropland as “fertilizer,” which, according to various estimates, may
 7 disperse 0.5 to 2.6 million pounds of arsenic-based compounds and their degradation products
 8 into the environment annually.²⁵ Poultry litter containing arsenic is also then fed to beef cattle.
 9 In January 2004, FDA proposed banning the practice;²⁶ however, the agency reversed course in
 10 October 2005 and decided to continue allowing it. Poultry litter is also converted into fertilizer
 11 pellets to be sold for commercial use on crops, for home landscaping, gardening, and on golf
 12 courses. This practice opens up entirely new avenues of the public’s exposure to arsenic.
 13 Arsenic levels in these pellets are reportedly similar to those found in unprocessed poultry
 14 waste.²⁷

15 72. Poultry waste can also contaminate peoples’ homes. For example, in the
 16 chicken-producing town of Prairie Grove, Missouri, house dust in each of thirty-one homes
 17 examined was found to contain at least two kinds of arsenic also found in chicken litter.

18 73. The rising volume of poultry waste, as well as its geographic concentration,
 19 means that larger broiler chicken and other poultry production facilities now generate far more
 20

21 ²⁴ Keeve E. Nachman et al., *Arsenic: A Roadblock to Potential Animal Waste Management*
 22 *Solutions*, 113 *Envtl. Health Persp.* 1123, 1123-24 (2005).

23 ²⁵ Miguel L. Cabrera & J. Thomas Sims, *Beneficial Use of Poultry By-Products: Challenges and*
 24 *Opportunities, in Land Application of Agricultural, Industrial, and Municipal By-Products*
 25 (James F. Power & Warren A. Dick eds., Soil Science Society of America 2000) (2000); D.W.
 26 Rutherford et al., *Environmental Fate of Roxarsone in Poultry Litter. Part II. Mobility of Arsenic*
 27 *in Soils Amended with Poultry Litter*, 37 *Envtl. Sci. & Tech.* 1515, 1515-20 (2003); R.L.
 28 Wershaw et al., *Roxarsone in Natural Water Systems*,
<http://water.usgs.gov/owq/AFO/proceedings/afo/pdf/Wershaw.pdf>.

²⁶ See Press Release, U.S. Food & Drug Admin., Expanded “Mad Cow” Safeguards Announced
 to Strengthen Existing Firewalls Against BSE Transmission (Jan. 26, 2004), *available at*
<http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/2004/ucm108230.htm>.

²⁷ Keeve E. Nachman et al., *supra* note 24.

1 waste than can easily be disposed of through land application. In late 2002, Minnesota permitted
 2 the first incinerator in the United States for the purpose of burning poultry litter for electricity
 3 generation.²⁸ This questionable practice will contribute to air pollution from toxics and heavy
 4 metals such as arsenic contained in the waste. Neither pelletization nor incineration can destroy
 5 or detoxify arsenic; both would further disperse it into the human environment.²⁹

6 74. Because arsenic is an element, it neither degrades nor disappears. Therefore, the
 7 disposal of arsenic compounds only redistributes arsenic in a different form that can lead to soil
 8 and water contamination. It is estimated that seventy to ninety percent of arsenic in poultry litter
 9 becomes water soluble, meaning it can readily migrate through soils and into underlying
 10 groundwater. Airborne drift of poultry litter dust also contaminates groundwater and indirectly
 11 exposes neighbors, farmers, and farmworkers to arsenic.³⁰ Routine arsenic use in animal feed
 12 likely adds to the already significant public health burden from arsenic-contaminated drinking
 13 water supplies.

14 ***FDA and Plaintiffs' 2009 Petition***

15 75. Defendant FDA has a duty to withdraw approvals of new animal drugs that are no
 16 longer considered safe. Studies published during the last fifteen years considering the impacts of
 17 arsenic-containing feed additives that were approved decades ago indicate that these compounds
 18 are no longer safe for use in food animal production. Despite this new evidence, the agency has
 19 not addressed the risks to animal health, human health, and the environment, as it is required to
 20 pursuant to the FFDCFA.

21 76. On December 8, 2009, Petitioners submitted a Citizen Petition for rulemaking
 22 pursuant to 21 C.F.R §§ 10.25(a), 10.30. The 2009 Petition documented the then-existing body
 23 of scientific evidence studying arsenic's use as a feed additive, and the risks stemming from this
 24

25 ²⁸ Minn. Pollution Control Agency, Fibrominn LLC Air Emission Permit 15100038-001
 26 (Oct. 23, 2002), available at [http://www.pca.state.mn.us/index.php/view-](http://www.pca.state.mn.us/index.php/view-document.html?gid=10864)
 27 document.html?gid=10864.

28 ²⁹ Keeve E. Nachman et al., *supra* note 24.

³⁰ B.P. Jackson et al., *Trace Element Speciation in Poultry Litter*, 32 J. Env'tl. Quality 535,
 535-40 (2003); J.R. Garbarino et al., *supra* note 10.

1 unsafe practice. Additionally, Petitioners have supplemented the docket with the growing body
2 of new evidence further demonstrating the risks.

3 77. The 2009 Petition requested, pursuant to the U.S. Constitution, the APA, and
4 FDA regulations, that the Commissioner do the following:

- 5 (i) Immediately suspend approval of all NADAs for arsenic-containing compounds
6 used as feed additives for food animals.
- 7 (ii) Publish a Notice of Opportunity for an Evidentiary Hearing concerning “new
8 evidence” related to the applications.
- 9 (iii) Upon completion of the hearing, issue an order withdrawing approval of all
10 NADAs for arsenic-containing compounds used as feed additives for animals.
- 11 (iv) Revoke all regulations associated with approval of all NADAs for
12 arsenic-containing compounds used as feed additives for food animals, including
13 regulations 21 C.F.R. §§ 558.62, 558.120, 558.369, 558.530.

14 78. Since the filing of the 2009 Petition, several additional events have occurred that
15 demonstrate not only increased urgency, but a straightforward path that FDA can take to
16 immediately withdraw FDA approval of arsenic-containing compounds. Despite these events,
17 FDA has not advanced its response to the 2009 Petition.

18 79. In February 2011, FDA completed a final report on a study that concluded (like
19 much of the existing scientific literature) that organic arsenic could transform into the toxic
20 carcinogen inorganic arsenic, and that levels of inorganic arsenic in chicken livers were
21 substantially higher for chickens treated with the arsenical Roxarsone than for chickens not
22 treated with Roxarsone.³¹ As the 2009 Petition described, evidence indicates that human
23 intestinal bacteria can convert organic arsenic to inorganic arsenic, demonstrating an immediate
24 human health risk. FDA’s study did not address other arsenic-containing compounds referenced
25 in the 2009 Petition nor did it evaluate muscle tissue consumed by humans more frequently than
26 chicken livers; more than two years later, FDA has yet to take these steps.

27
28 ³¹ U.S. Food and Drug Admin., Final Report on Study 275.30, *supra* note 1.

1 80. In June 2011, Alharma (a division of Pfizer) announced it would voluntarily
2 suspend—not revoke—sale of Roxarsone within thirty days following the release of FDA’s
3 study.³² At that time, FDA commented that Roxarsone raised concerns of “completely avoidable
4 exposure to a carcinogen.”³³ A voluntary withdrawal of Roxarsone by one manufacturer is not
5 enough to protect human health and the environment, and does not meet FDA’s duties under the
6 APA and FFDCFA. Of note, neither Alharma nor other arsenical compound manufacturers
7 voluntarily suspended their sales of additional arsenicals.

8 81. In August 2011, Plaintiff CFS wrote to FDA, informing the agency that Plaintiffs
9 had not received a status report on the 2009 Petition despite FDA’s study and that FDA had not
10 suspended arsenic-containing compounds pending investigation, nor scheduled an evidentiary
11 hearing, pursuant to 21 U.S.C. § 360b(e)(1). Plaintiff CFS informed FDA that should it not
12 prioritize the inquiry, Petitioners would seek redress in court.³⁴ FDA did not respond.

13 82. In May 2012 Maryland’s Governor signed H.B. 167, a bill banning the use, sale,
14 or distribution of Roxarsone or any other feed additive that contains arsenic or histostat.³⁵ There
15 are other arsenical compounds that H.B. 167 does not address. Even in light of Maryland’s
16 proactive legislation, FDA still failed to respond to the 2009 Petition.

17 ***FDA’s Failure to Respond to Plaintiffs’ 2009 Petition***

18 83. On June 3, 2010, FDA provided an Interim Response in accordance with 21
19 C.F.R. § 10.30(e)(2), fulfilling the requirement to provide a response within 180 days. The
20 Interim Response stated that FDA was unable to reach a decision on the 2009 Petition “because
21 of the complexity and the number of issues raised in [the] petition.” In addition, the Interim
22
23

24 _____
25 ³² Press Release, U.S. Food and Drug Admin., *supra* note 2.

26 ³³ *Id.*

27 ³⁴ Letter from Petitioners to Margaret A. Hamburg, Comm’r, U.S. Food and Drug Admin., and
Bernadette Dunham, Dir., Ctr. for Veterinary Med. (Aug. 9, 2011) (filed concurrently as
Exhibit B).

28 ³⁵ H.B. 167, 2012 Reg. Sess. (Md. 2012), *available at*
<http://mgaleg.maryland.gov/2012rs/bills/hb/hb0167t.pdf> .

1 Response indicated that “FDA will issue a final response to your citizen petition after completing
2 the analyses of all of the legal and policy issues raised in the petition.”³⁶

3 84. Since that time the agency has given no further information concerning when, or
4 if, Petitioners may expect a response to the 2009 Petition. Forty months have passed since FDA
5 received the 2009 Petition. To date, FDA has not directly responded to the 2009 Petition.

6 85. With Roxarsone currently “off the market,” FDA need only permanently
7 withdraw the NADAs for Roxarsone to make this voluntary action a permanent ban, protecting
8 human health, environmental health, and food safety.

9 86. FDA has developed new testing methods to detect inorganic arsenic in chicken
10 meat. Nevertheless, FDA has not used these methods to test for any other arsenical besides
11 Roxarsone.

12 87. The burdens on human health and the environment are too great for FDA to
13 depend on the voluntary withdrawal of one arsenical.

14 88. The public has filed approximately 17,500 comments in the FDA docket for
15 Plaintiffs’ 2009 Petition, the overwhelming majority calling on the agency to respond and
16 address this pressing issue.

17 ***Harm to Plaintiffs***

18 89. The interests of Plaintiffs are being and will be adversely affected by Defendants’
19 continued failure to respond to or act on the 2009 Petition. In particular, Defendants’
20 unreasonable delay in responding to the 2009 Petition injures Plaintiff organizations by, *inter*
21 *alia*, abridging their procedural right to petition a federal agency for rulemaking under the APA.
22 Defendants’ unreasonable delay also directly harms Plaintiffs’ goals and functions by impeding
23 their ability as public interest, nonprofit organizations to further facilitate public involvement in
24 governmental decision-making, and by foreclosing the statutory right that allows for public
25 participation through petitions for rulemaking.

26
27
28 ³⁶ Letter from Bernadette Dunham, Dir., Ctr. for Veterinary Med., to Petitioners (June 3, 2010)
(filed concurrently as Exhibit C).

1 90. The interests of Plaintiffs’ members are being and will be adversely affected by
2 Defendants’ continued failure to respond to the 2009 Petition. Members of Plaintiff
3 organizations suffer procedural injury based on the agency’s undue delay in responding to their
4 2009 Petition. Plaintiffs’ members are also suffering or will suffer an ongoing threat to their
5 health and the health of their environment so long as arsenic-containing compounds remain
6 unaddressed by FDA.

7 91. The requested relief will redress this harm by forcing FDA to respond to the 2009
8 Petition and address these issues, resulting in either (1) a response fulfilling FDA’s statutory
9 duties, aimed at protecting the public health and the environment from the growing risks from
10 arsenic-containing compounds; and/or (2) by providing a final agency action that Plaintiffs may
11 challenge if Plaintiffs disagree with the agency’s response, in whole or in part.

CAUSE OF ACTION

12
13 92. Plaintiffs incorporate by reference all allegations contained in paragraphs 1
14 through 91 *supra*.

15 93. The APA requires agencies to “give an interested person the right to petition for
16 the issuance, amendment, or repeal of a rule.” 5 U.S.C. § 553(e); *see also id.* § 551(4) (defining
17 “rule” as “the whole or a part of an agency statement of general or particular applicability and
18 future effect designed to implement, interpret, or prescribe law or policy”). The APA’s right to
19 petition encompasses the right to petition for a new, revised, or final rule concerning FDA
20 regulation of new animal drug approvals under its statutory purview, including but not limited to
21 arsenical compounds for use in food-producing animals. *See id.* §§ 551-559, 701-706.

22 94. Upon receipt of an APA petition, the Commissioner and FDA have a duty to
23 respond to the petitioners promptly. *See id.* § 555(e) (“Prompt notice shall be given of the denial
24 in whole or in part of a . . . petition. . . .”). Such response must be substantive, *i.e.*, it must either
25 grant or deny the petition. *See id.*

26 95. The APA grants a right of judicial review to “[a] person suffering legal wrong
27 because of agency action, or adversely affected or aggrieved by agency action.” *Id.* § 702.
28 Plaintiffs and their members are adversely affected by FDA’s past and continued failure to

1 respond to the 2009 Petition.

2 96. The APA states that a reviewing court “shall” interpret statutes and “compel
3 agency action unlawfully withheld or unreasonably delayed,” *id.* § 706(1), and “hold unlawful
4 and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse
5 of discretion, or otherwise not in accordance with law,” *id.* § 706(2)(A). FDA’s failure to
6 respond to and take action on the 2009 Petition is arbitrary and capricious and constitutes
7 unlawfully withheld and unreasonably delayed agency action. *See id.*

8 **RELIEF REQUESTED**

9 WHEREFORE, Plaintiffs respectfully request that this Court enter an Order:

10 (1) Declaring that the Defendants have violated the APA by failing to respond to the
11 2009 Petition within a reasonable time;

12 (2) Declaring that the Defendants continue to be in violation of the APA by failing to
13 respond to the 2009 Petition;

14 (3) Ordering the Defendants to respond to the 2009 Petition forthwith;

15 (4) Retaining jurisdiction in this action to ensure compliance with its decree;

16 (5) Awarding Plaintiffs attorney fees and all other reasonable expenses incurred in
17 pursuit of this action; and

18 (6) Granting other such relief as the Court deems just and proper.

19
20 Respectfully submitted this 13th day of May, 2013.

21
22 /s/ Paige M. Tomaselli

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