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IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

FIRST APPELLATE DISTRICT, DIVISION ONE

DEWAYNE JOHNSON,
Plaintiff and Appellant,

v.

MONSANTO COMPANY,
Defendant and Appellant.

APPEAL FROM SAN FRANCISCO COUNTY SUPERIOR COURT
SUZANNE R. BOLANOS, JUDGE • CASE NO. CGC-16-550128

APPELLANT'S OPENING BRIEF

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CERTIFICATE OF INTERESTED ENTITIES OR PERSONS

Defendant and Appellant Monsanto Company is an indirect, wholly-owned subsidiary of Bayer AG, so Bayer AG has a financial interest in a party to this proceeding.

April 23, 2019

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INTRODUCTION

Monsanto Company manufactures Roundup Pro® and Ranger Pro®, glyphosate-based herbicides (collectively referred to herein as Roundup or herbicides), which have been approved as safe for use in the United States for more than 40 years. Over this period, glyphosate has been among the most studied substances in history, and Monsanto's herbicides have been subject to repeated and rigorous scientific scrutiny by health authorities worldwide. Not one national or international regulator has ever concluded that these products cause cancer in humans.

Nevertheless, despite this regulatory scientific consensus, and despite the fact that none of his treating doctors considered

Monsanto's products to be even a potential cause of his cancer, Plaintiff Dewayne Lee Johnson alleged that his exposure to Monsanto's herbicides caused him to develop a form of non-Hodgkin's lymphoma (NHL) known as mycosis fungoides (MF).

After a lengthy trial notable both for the exclusion of key evidence and for the distortion of reliable science by the only medical doctor who claimed that Monsanto's herbicides caused Plaintiff's cancer, the jury found for Plaintiff and awarded $39 million in compensatory damages and $250 million in punitive damages. The jury concluded that Monsanto should have warned that its herbicides caused NHL, and that these products were "defective" because an ordinary consumer would not expect these products to cause cancer.

The jury's verdict and the damages awarded cannot be reconciled with either the law or sound science.

Regarding the failure to warn claims, the "best scholarship available" at the time Plaintiff was exposed to Monsanto's herbicides was unanimous in concluding there was insufficient evidence to establish a causal link between NHL and exposure to glyphosate or glyphosate-containing herbicides. As a result, there was no known or knowable risk and therefore no duty to warn under either strict liability or negligence theories. Indeed, much of the trial revolved around a determination in 2015—several months *after* Plaintiff was diagnosed with NHL—by the International Agency for Research on Cancer (IARC) that glyphosate is "probably carcinogenic" at some unknown dose. IARC is a nongovernmental consortium of scientists which

reached the academic conclusion that glyphosate posed a theoretical cancer hazard detached from any real-world determination that glyphosate posed an actual risk to humans based on its use as an active ingredient in herbicides. Even if IARC's post-hoc conclusions were relevant to Monsanto's duty to warn Plaintiff—they aren't—they at best represent a minority view that the United States Environmental Protection Agency (EPA) and numerous worldwide regulators specifically rejected. After IARC announced its conclusions in 2015, these regulators reevaluated the science and reaffirmed their findings that glyphosate-based herbicides have not been shown to pose a real-world cancer risk.

There was also no basis for the jury's finding of a design defect under the consumer expectations test, which "is reserved for cases in which the *everyday experience* of the product's users permits a conclusion that the product's design violated *minimum safety assumptions*, and is thus defective *regardless of expert opinion about the merits of the design*." (*Soule v. General Motors Corp.* (1994) 8 Cal.4th 548, 567 (*Soule*).) Here, the consumer expectations test does not apply because complex expert testimony is necessary to describe the nature of the product's alleged defect and how it allegedly caused Plaintiff's injury.

The basic failure of Plaintiff's warning and design defect claims is also evidenced by the fact that there is no substantial evidence of causation. Because at least 80 percent of NHL cases are of unknown cause (i.e., idiopathic), an expert purporting to testify as to the cause of Plaintiff's illness had to account for

these unknown causes. Plaintiff's experts failed to do so and, as a result, their opinions are speculative and entitled to no evidentiary weight.

Even setting aside this failure of proof as to causation, Plaintiff's liability theories are preempted by federal law under the impossibility and express preemption doctrines. Federal law prohibits a court from imposing liability against a manufacturer under state law for its failure to warn about an alleged risk or defect that the governing federal regulatory agency has expressly determined is not supported by science, and where the governing federal authority has promulgated rules making it legally impossible for the manufacturer to change the label or the ingredients without prior approval from the regulator.

Even if this court does not reverse the judgment with directions to enter judgment in favor of Monsanto, a new trial is required because the trial court abused its discretion by (a) excluding documents published by EPA and foreign regulatory agencies stating there is no basis to conclude that Monsanto's herbicides pose a cancer risk to consumers, while (b) admitting into evidence the IARC Monograph that concluded glyphosate is probably carcinogenic. The combined effect of these rulings allowed Plaintiff to paint a distorted reality to the jury, arguing that only IARC's conclusions could be considered for their truth in reaching the verdict.

Apart from the substantive errors infecting the jury's liability determination, the jury's award of $250 million in punitive damages, ultimately remitted to $39 million, cannot be

sustained. The undisputed facts show that Monsanto kept abreast of the most current scientific information and the uniform conclusions of foreign and domestic regulatory agencies that there is no causal link between exposure to Monsanto's products and cancer. For those very reasons, the trial court initially indicated its view that the punitive damages could not stand—before ultimately deciding, in the wake of an extraordinary and coordinated public relations campaign, not to set it aside but rather to reduce it to $39 million. The trial court got it right the first time: failing to provide a warning for a risk that the governing United States regulatory body (and others worldwide) has duly considered and concluded is not supported by science is not a valid basis for a punitive damages award.

The compensatory damages award is equally defective. In particular, the $33 million award in future noneconomic damages is excessive as a matter of law. It reflects not a fair assessment of actual damages but instead is the result of improper argument of counsel fueling the passions and prejudices of the jury and inviting the jury to improperly award future damages based on a projected life expectancy at odds with Plaintiff's own evidence.

STATEMENT OF FACTS AND PROCEDURAL HISTORY

Monsanto manufactures Roundup Pro and Ranger Pro, which are broad spectrum herbicides that contain the active ingredient glyphosate. (5 AA 5542.)

A. EPA approves Roundup for sale in the United States in 1974.

Before approving an herbicide for sale, EPA requires a variety of toxicity and carcinogenicity studies to be conducted on the active and inactive ingredients. (13A RT 2049:23-2050:12; 21B RT 3712:11-3713:14; 5 AA 5580.) EPA also requires acute toxicity tests (i.e., tests for harmful effects from a single or short-term exposure) for dermal toxicity, inhalation toxicity, skin irritation, eye irritation, and skin sensitization, as well as sub-chronic toxicity studies to test whether a substance can cause harmful effects lasting more than one year but less than a lifetime. (21B RT 3713:10-3714:21; 5 AA 5582.) EPA further requires submission of two 18- to 24-month chronic carcinogenicity studies on rodents for review and approval. (13A RT 2049:17-2050:25.)

EPA specifically reviewed and approved for sale glyphosate and Monsanto's Roundup products. (5 AA 5650, 5677.) EPA first approved Roundup for sale in 1974. (5 AA 5649-5650.)

B. Regulatory and large-scale studies of glyphosate show no evidence of a cancer risk.

Since 1974, glyphosate has become one of the most widely studied substances in the world. (13A RT 2051:1-3; 26A RT 4503:17-24; 5 AA 5858-5859.)

In 1991, EPA classified glyphosate as noncarcinogenic for humans " 'based on a lack of convincing evidence of carcinogenicity in adequate studies.' " (5 AA 5704; accord, 7 AA 7603, 7634.) In 1993, EPA confirmed its finding that glyphosate was not carcinogenic, concluding that glyphosate " 'will not pose unreasonable risks or adverse effects to humans.' " (5 AA 5573; accord, 7 AA 7608.) EPA observed that glyphosate "is of relatively low oral and dermal acute toxicity" and that "[s]everal chronic toxicity/carcinogenicity studies using rats, mice and beagle dogs resulted in no effects based on the parameters examined, or resulted in findings that glyphosate was not carcinogenic in the study." (7 AA 7603; see 7 AA 7633-7634.)

Because glyphosate-based herbicides are used worldwide in agriculture (5 AA 5676-5677), numerous foreign regulatory agencies have also studied the carcinogenicity of glyphosate. Consistent with EPA's findings, foreign regulatory agencies have found insufficient evidence that glyphosate is carcinogenic to humans. The European Food Safety Authority, European Chemicals Agency, New Zealand EPA, German health authority, and Canadian, Australian, and Japanese regulators all agree that the evidence is insufficient to conclude that glyphosate is a human carcinogen. (5 AA 5682-5683; 13A RT 2014:6-14; 13B RT

2111:2-2112:9.) Regulatory agencies re-review the safety of glyphosate every 10 to 15 years based upon "the state of the science" at that time. (13B RT 2072:14-23; 22B RT 3964:6-14, 3965:1-6.)

Recent large-scale epidemiology studies also found no association between glyphosate use and cancer. (24A RT 4273:21-23, 4274:11-4275:8, 4288:10-4289:12, 4302:6-15.) The Agricultural Health Study, funded by the National Institutes of Health and EPA, analyzed whether pesticides increase cancer risk in farmers and commercial pesticide applicators (like Plaintiff). (24A RT 4277:3-4278:13.) Participants in the study have been monitored for cancer since enrolling between 1993 and 1997. (24A RT 4277:19-4278:9.) With over 50,000 participants, the Agricultural Health Study is "far and away the largest [study] in terms of the number of . . . cases [of individuals exposed to glyphosate]." (24A RT 4286:14-16.) Based upon the results of the Agricultural Health Study, the Journal of the National Cancer Institute published data in 2018 showing "no associations between glyphosate use and NHL risk overall or any of its subtypes." (24A RT 4301:17-21, 4302:6-15; see also 24A RT 4288:10-4289:12.)

The North American Pooled Project, funded by the National Institutes of Health, also addressed whether there is a connection between glyphosate and a risk of NHL. (24A RT 4261:12-4263:1.) Like the 2018 Journal of the National Cancer Institute results, the results of the North American Pooled Project showed "no evidence of a positive association between glyphosate, including

higher levels of glyphosate exposure, and the risk of NHL." (24A RT 4274:11-4275:8.)

C. After Plaintiff was diagnosed with non-Hodgkin's lymphoma, IARC finds a theoretical cancer hazard.

IARC is an agency of the World Health Organization (WHO). (5 AA 5515.) In its Monograph Programmes, IARC working groups evaluate the carcinogenicity of different substances.[1] (6 AA 6243-6244.) IARC classifies substances that it studies in either Group 1 ("carcinogenic to humans"), Group 2A ("probably carcinogenic to humans"), Group 2B ("possibly carcinogenic to humans"), Group 3 ("not classifiable as to its carcinogenicity to humans"), or Group 4 ("probably not carcinogenic to humans"). (6 AA 6263-6264, original formatting omitted; see 17B RT 3003:19-3005:20.) Although IARC has assessed more than 1,000 agents, it has classified only one substance as "probably not carcinogenic to humans." (17B RT 3005:1-23.)

IARC evaluates only whether a substance "is capable of causing cancer under some circumstances"; the agency does not evaluate the likelihood of cancer based on actual human "exposure to a cancer hazard." (6 AA 6243; accord, 16B RT 2669:9-16, 2671:4-2673:8.) IARC's methodology is an academic

[1] We refer below to the IARC working groups as "IARC" for the sake of simplicity.

analysis focused on theoretical hazards, as opposed to a real-world analysis focused on actual risks. (See *ibid.*)[2]

In late 2014, IARC announced that it intended to evaluate the carcinogenicity of glyphosate. IARC issued its glyphosate findings in March 2015. (14A RT 2241:10-11; 6 AA 6801-6916 [volume 112, *IARC Monographs on the Evaluation of Carcinogenic Risk to Humans* (Monograph 112)].) IARC classified glyphosate in Group 2A as an agent that is "probably carcinogenic to humans." (5 AA 5591-5592; 6 AA 6902.) IARC found the human epidemiology data did not establish that glyphosate causes cancer; instead, IARC based its Group 2A classification on experimental animal studies concerning tumors in rodents and mechanistic data showing glyphosate can cause cell changes in petri-dish type experiments. (12A RT 1734:10-1735:1; 16B RT 2678:20-25; 6 AA 6902-6903.) IARC did not consider either the Agricultural Health Study or the North American Pooled Project studies discussed above because those data were not yet published. (5 AA 5523-5528, 5535; 24A RT 4305:12-17; see *ante*, pp. 21-22.)

IARC did not assess the probable risk of cancer to humans from exposure to glyphosate, nor did it assess the dose of glyphosate that allegedly could cause cancer. (12A RT 1717:7-12; 16B RT 2671:9-2673:8.) Instead, IARC concluded only that glyphosate is a probable carcinogen at some theoretical dose, not

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[2] By contrast, government regulators review the likelihood that an herbicide causes cancer to product users in light of real-world exposures. (16B RT 2669:9-13, 2671:9-2673:8.)

that those using glyphosate-containing herbicides were actually at any "potential risk" for getting cancer. (See 12A RT 1717:7-12 ["IARC is trying to do the scientific decision of whether it's possible or not that this can cause cancer. [IARC does not comment on] . . . how much cancer is going to be caused by a particular exposure level or how much is acceptable to your population."].)

D. Following IARC, domestic and foreign regulatory agencies reaffirm their conclusion that there is no evidence glyphosate causes cancer.

After IARC announced its Monograph 112 in March 2015, regulatory agencies throughout the world reevaluated glyphosate, considered the latest data, and continued to find no evidence that glyphosate causes cancer in humans:

1. In October 2015, EPA's Cancer Assessment Review Committee performed a " 'carcinogen risk assessment[ ] based on the weight of evidence' " and confirmed that glyphosate is " 'not likely to be carcinogenic to humans.' " (5 AA 5574-5575; 7 AA 7060, 7069.) The committee concluded the "epidemiological evidence at this time does not support a causal relationship." (7 AA 7069.)

2. In September 2016, EPA's Office of Pesticide Programs likewise concluded, based on "a thorough integrative weight-of-evidence evaluation of the available data," that glyphosate is " 'not likely to be carcinogenic to humans.' " (7 AA

7147, 7287; see also 5 AA 5709-5710.) That office reviewed "23 epidemiological studies, 15 animal carcinogenicity studies, and nearly 90 genotoxicity studies," and rejected the contention that the weight-of-the-evidence constituted even " 'suggestive evidence of carcinogenic potential.' " (7 AA 7286.)

3. In 2015, the European Union's food safety agency reevaluated and confirmed its earlier conclusion that glyphosate does not pose a carcinogenic risk to humans. (5 AA 5575, 5708.)

4. In 2016, the European Union's chemical safety agency similarly concluded that "based on the epidemiological data as well as the data from long-term studies in rats and mice, taking a weight of evidence approach, no classification for carcinogenicity is warranted." (7 AA 7004, boldface omitted.)

5. In 2016, the Joint Meeting on Pesticide Residues, a science-based program within WHO separate from IARC, concluded that dietary exposure to glyphosate is not carcinogenic to humans. (5 AA 5575-5576, 5708.)

6. In 2016, the Australian government's national pesticide regulator concluded that "exposure to glyphosate does not pose a carcinogenic or genotoxic risk to humans." (8 AA 8014; see also 5 AA 5683.)

7. In 2017, the Canadian government's national pesticide regulator, Health Canada, concluded that "[g]lyphosate is not genotoxic and is unlikely to pose a human cancer risk." (7 AA 7896; see also 5 AA 5683.) Health Canada further concluded that "[a]n evaluation of available scientific information found that products containing glyphosate do not present risks of

concern to human health or the environment when used according to the revised label directions." (7 AA 7897.)[3]

E. Additional background on the science used to assess whether glyphosate is carcinogenic.

Three primary types of science are relevant to assessing whether glyphosate is carcinogenic: epidemiology, toxicology, and mechanistic data. Epidemiology is considered the strongest evidence about a substance's likelihood to cause disease because it is the only evidence that measures real-world outcomes in humans based on actual exposure in the field. (24A RT 4206:23-4207:10.)

Epidemiology. Epidemiology compares the relative occurrences of disease between exposed and unexposed people. (12A RT 1692:16-19; 24A RT 4207:13-17, 4226:1-4.) There are two types of epidemiological studies: cohort studies and case control studies. (16A RT 2555:20-2558:4.) Cohort studies identify people based on exposure and then monitor disease over time. (16A RT 2557:14-2558:1.) Case-control studies identify people based on disease and then investigate their exposure. (16A RT 2556:5-22.) Cohort studies are the "gold standard" because they limit biases during data collection that distort study results. (17B RT 2941:3-16; 24A RT 4276:5-4277:2.) The

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[3] At trial, the court excluded these and other regulatory reports on hearsay grounds. (See pp. 68-69, *post*.) As we argue below, the exclusion of these documents was prejudicial error warranting a new trial. (See pp. 68-73, *post*.)

Agricultural Health Study, which in 2018 showed no association between glyphosate and NHL, is a large-scale cohort study. (24A RT 4301:17-21, 4302:6-15; 5 AA 5525-5526.)

Plaintiff's epidemiological expert conceded that none of the epidemiological studies he considered showed a statistically significant result—i.e., a relative risk ratio of 2.0 or greater. (16B RT 2682:13-15, 2702:25-2703:3.) A 2.0 risk ratio means a disease occurred twice as frequently in exposed individuals as in unexposed individuals. (12B RT 1870:15-17.) A 1.0 risk ratio means there is no association—i.e., that the disease occurs with the same frequency in exposed and unexposed people. (24A RT 4228:1-7.)

Case-control studies such as McDuffie (2001), De Roos (2003), and Eriksson (2008) do report risk ratios at or slightly above 2.0 but rely in large part on data that is not adjusted for other pesticides.[4] (17A RT 2825:12-2830:5; 24A RT 4241:16-4243:3, 4248:9-4249:10, 4253:13-4259:14.) When properly adjusted for other pesticides, however, those odds ratios drop below 2.0. (24A RT 4257:9-25; see also 17B RT 2912:10-2934:24; 24A RT 4244:21-4247:3.) "[A]djustment" is a technique that attempts to isolate the effect of a particular herbicide where the population has been exposed to multiple herbicides. (16B RT 2666:25-2667:17; 17B RT 2908:13-25.) Data that is adjusted for

[4] There was evidence that the De Roos (2003) study was adjusted for commonly used pesticides. (See 12B RT 1886:9-23, 1891:25-1892:12; 24A RT 4257:9-16; 24B RT 4383:6-10, 4385:16-18.)

other pesticides is "more valuable" than unadjusted data and "not doing the adjustment" can contaminate a study's results. (17B RT 2909:24-2910:11, 2924:11-14; accord, 16B RT 2667:22-24.) The North American Pooled Project and the 2018 Journal of the National Cancer Institute results are adjusted for other pesticides and report odds ratios of approximately 1.0. (24A RT 4274:11-4275:8, 4286:10-23, 4288:10-4289:20, 4302:6-15; see *ante*, pp. 21-22.)

IARC performed a meta-analysis[5] of available epidemiology that showed a 1.3 risk ratio. (5 AA 5526; 24A RT 4305:4-7.) When a meta-analysis is performed using the same methodology employed by IARC, but includes the North American Pooled Project and the 2018 Journal of the National Cancer Institute data not considered by IARC, that analysis shows no "positive association" whatsoever "between exposure to glyphosate and the risk of NHL." (24A RT 4305:4-4307:25.)

[5] A "meta-analysis is a commonly used statistical tool to summarize data across multiple studies" that weighs the "relative risks and 95 percent confidence intervals that are actually reported in each individual study . . . based on the size of the study" to provide "a summary picture of the information." (24A RT 4304:2-14.)

Toxicology. Toxicology studies examine the potential effects of substances in experimental animals. There are 12 long-term rodent carcinogenicity studies for glyphosate accepted by experts for both Plaintiff and Monsanto. (26A RT 4495:4-19; see 12B RT 1812:1-6.) Tumors observed in rodents are analyzed under numerous criteria in EPA's Guidelines for Carcinogen Risk Assessment. (12B RT 1850:1-1853:13.)

EPA concluded that "[b]ased on the weight of the evidence" the tumors observed in the rodent studies were not "related" to glyphosate. (7 AA 7242.) Moreover, the tumors "are not considered relevant for human health risk assessment" because the rodents' doses of exposure do not translate to humans. (*Ibid.*; 26A RT 4528:3-4532:17.) Plaintiff's expert, Dr. Christopher Portier, disagreed with EPA's conclusions, as well as the similar conclusions of European regulatory agencies. (13A RT 2010:4-25; 13B RT 2098:13-23, 2106:12-15, 2120:17-2122:17.) However, those agencies rejected his criticisms. (13B RT 2107:23-2111:1, 2125:3-19, 2127:16-2129:6, 2131:24-2136:20).

Mechanistic Data. Mechanistic studies "provide information concerning the molecular, cellular or physiological mechanisms by which substances exert their effects on living cells and organisms." (*Mechanistic study*, The Free Dictionary By Farlex <https://bit.ly/2XkgsNE> [as of Apr. 23, 2019].)

There are over 100 mechanistic studies of glyphosate. (13A RT 1966:5-14.) After reviewing these studies, EPA found that

although there was "limited evidence" of a genotoxic effect[6] in some of these in vitro mechanistic studies, there was "no convincing evidence" that glyphosate induces cell changes in the more widely referenced human mechanistic studies. (7 AA 7274, 7277.)

An independent genotoxicity expert hired by Monsanto, Dr. James Parry, agreed that Roundup was not genotoxic after reviewing the published results of several tests he asked Monsanto to perform. (5 AA 5814, 5816-5817, 5819-5820, 5826-5828, 5837-5846, 5863-5866.) But Plaintiff's expert, Dr. Portier, testified he believed Monsanto did not perform all the tests recommended by Dr. Parry. (13A RT 1996:10-1997:22.)

F. Nature and progression of non-Hodgkin's lymphoma and mycosis fungoides.

NHL is a blood lymphoma of which there are at least 70 subtypes. (17A RT 2802:11-12; 27A RT 4722:11-15.) MF is one of these subtypes. (17B RT 2899:9-15.) MF is not a skin cancer; it is a blood cancer that typically shows up in the skin. (27A RT 4738:4-19.) African Americans are more at risk for MF than other racial groups. (17A RT 2845:18-19, 2846:1-15; 17B RT 2999:4-8; 27A RT 4741:10-20.) MF is also more common in males than females. (27A RT 4741:18.) The median age of those diagnosed with MF is 55 to 60. (17A RT 2843:2-7.)

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[6] Genotoxicity studies examine the potential damage caused by an agent to the genetic material of a cell. (13A RT 1967:15-16; 5 AA 5678.)

There are occupational associations with NHL: even before glyphosate-based herbicides were ever manufactured or sold, farmers reported higher rates of NHL than the general population. (16B RT 2665:21-2666:24; 24A RT 4232:16-4233:6.)

For most cases of NHL (at least 80 percent), the causes are unknown or "idiopathic." (17A RT 2844:4-10; 17B RT 2997:17-2998:21; 27A RT 4789:20-4790:4.) According to Stanford physician and internationally renowned MF expert, Dr. Youn Kim, "right now, the scientific fact—not my opinion, the scientific fact is that so far there is no established cause for" mycosis fungoides. (17B RT 2995:12-14.)

G. Plaintiff is exposed to Monsanto's herbicides beginning in June 2012 and is diagnosed with MF in August 2014.

Plaintiff first sprayed Roundup on June 11, 2012, when he began working as a pest manager for the Benicia Unified School District. (17A RT 2833:14-2834:1, 2854:6-8; 18B RT 3206:8-3207:21.) He had never previously applied glyphosate-based herbicides. (17A RT 2833:21-2834:1; 18B RT 3224:22-3225:4.) Plaintiff applied Roundup approximately 20 to 40 times per year over a two or three-year period. (17A RT 2833:14-2834:1; 17B RT 2951:13-17; 18A RT 3151:3-25, 3154:2-16; 18B RT 3236:4-13, 3306:8-13.) He applied these products roughly four times per week during June, July, and August, for three to four hours per day. (17B RT 2951:13-2952:8; 18B RT 3305:4-23.)

Plaintiff's medical records indicate that he first manifested symptoms consistent with MF in September 2013, but Plaintiff's medical expert, Dr. Chadi Nabhan, testified he believes the medical records are inaccurate and that Plaintiff's symptoms first appeared in the late spring of 2014. (17A RT 2836:11-2837:6, 2854:9-14, 2860:25-2861:7; 17B RT 2953:2-2959:7, 2962:20-2967:14, 3028:7-3035:17; 27A RT 4744:5-4747:15, 4763:9-16, 4768:18-4769:3, 4774:9-4775:2.) In April 2014, Plaintiff accidently caught his hose between the sidewalk and asphalt, causing herbicide to spray uncontrollably and penetrate his body suit. (17A RT 2866:12-2867:1; 18B RT 3259:6-3262:8.) He sought treatment for a rash shortly after this incident. (17A RT 2837:17-2840:19; 18A RT 3127:4-13.)

Plaintiff was diagnosed with MF in August 2014 (17A RT 2835:1, 2866:2-11; 27A RT 4763:14-16), about seven months before IARC announced its Monograph in March 2015 (14A RT 2241:10-11). Plaintiff was 42 years old at the time. (17B RT 2957:8-22.)

Plaintiff continued to apply Roundup for a few months after his diagnosis. (18B RT 3235:6-8.) A second acute exposure incident occurred in January 2015, when his spray backpack leaked, penetrated his body suit, and exposed his back. (18B RT 3246:21-3247:18.) In March 2015, Plaintiff stopped applying herbicides. (See 18A RT 3151:3-25, 3154:2-16; 18B RT 3236:4-13.)

H. Evidence of the cause of Plaintiff's MF diagnosis in 2014.

Plaintiff's medical expert, Dr. Nabhan, opined that Monsanto's herbicides caused Plaintiff's MF. (17A RT 2849:16-21, 2853:19-2854:2.) Dr. Nabhan examined the IARC Monograph and the scientific literature, reviewed Plaintiff's medical and employment records, spoke with Plaintiff for an hour or two, and conducted a physical examination. (17A RT 2789:3-2790:18, 2793:5-10, 2794:23-2795:22, 2819:5-10, 2831:1-6.) Dr. Nabhan reached his opinion by performing a "differential diagnosis." (17A RT 2841:4-2842:9.)[7]

In performing the differential diagnosis, Dr. Nabhan said that he considered age, race, immunosuppressive therapies, autoimmune diseases, and exposure to Monsanto's herbicides as potential causes of Plaintiff's MF. (17A RT 2841:23-2848:6.) Dr. Nabhan ruled out age as a potential cause because Plaintiff was outside the *median* age range for NHL (17A RT 2843:2-2845:2), but ruled in exposure to Monsanto's herbicides as a potential cause based on the *minimum* latency period (time between

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[7] "[D]ifferential diagnosis" has been defined as follows: "In a differential [diagnosis or] etiology, an expert . . . determines other known causes of the disease in question and then attempts to ascertain whether those competing causes can be 'ruled out' as a cause of plaintiff['s] disease. . . . By ruling out (or ruling in) the possibility of other causes, the probability that a given agent was the cause of an individual's disease can be refined." (Federal Jud. Center, Reference Manual on Scientific Evidence (3d ed. 2011) pp. 617-618, footnote omitted.)

exposure and illness) (17A RT 2854:6-2859:23; 17B RT 3012:10-3014:12), while ignoring undisputed evidence of much longer *median* latency periods for NHL and other similar cancers (21B RT 3678:4-3679:6, 3775:16-3781:9 [median latency periods range from 6 to 10 years depending on type of chemical and exposure]).

Although it was undisputed that most NHL cases are idiopathic (see *ante*, p. 31), Dr. Nabhan disregarded the likelihood that the cause of Plaintiff's MF is unknown (17B RT 2996:7-2997:10). Dr. Nabhan gave no reason for doing so other than the fact that he had ruled in Plaintiff's exposure to Monsanto's herbicides as a potential cause. (See 17A RT 2847:25-2848:6, 2849:9-21; 17B RT 2996:10-3003:7.)[8]

Plaintiff's toxicology expert, Dr. William Sawyer, also testified that Plaintiff's exposure to Monsanto's herbicides caused his NHL. (21B RT 3781:18-21; see also 21A RT 3601:9-13.) However, Dr. Sawyer did not perform a differential diagnosis and did not explain why an unknown cause was not an equally likely cause of Plaintiff's disease.

I. Trial, verdict, and posttrial proceedings.

Plaintiff asserted claims for design defect under the consumer expectations theory, strict liability failure to warn,

[8] Having excluded unknown causes and age from the equation, Dr. Nabhan ruled out all remaining causes other than Plaintiff's African-American race and his exposure to Monsanto's herbicides. (17A RT 2844:22-2845:2, 2853:19-23.) Dr. Nabhan then concluded exposure to herbicides was "the most substantial contributing factor." (17A RT 2853:24-2854:2.)

negligent failure to warn, and punitive damages. (5 AA 5499-5503.)

Despite the consensus among worldwide regulatory agencies that the evidence does not support a conclusion that glyphosate is carcinogenic,[9] the trial court ruled during trial that the written conclusions of these regulatory agencies were either not admissible or, with respect to two EPA documents, were admissible only to show Monsanto's state of mind. (13B RT 2122:18-2124:12; 14A RT 2202:13-2205:11; 14B RT 2288:14-21; 20 RT 3529:1-3530:5; 29A RT 5054:22-5055:6.) The court admitted the complete IARC Monograph without limitation. (12A RT 1715:24-1716:6, 1740:19-24.) As a result, the jury was left to determine causation based on the IARC Monograph and the conflicting testimony of the parties' experts who were divided on the issue of causation.

Plaintiffs called Christopher Portier, Ph.D, Alfred Neugut, M.D., Chadi Nabhan, M.D., and William Sawyer, M.D., who testified that glyphosate has the capacity to cause NHL. (13A RT 1993:25-1994:21, 2023:6-14; 16B RT 2646:15-23; 17A RT 2793:16-23; 21A RT 3595:22-3596:7; 21B RT 3781:18-21.) Monsanto called Lorelei Mucci, Sc.D., Warren Foster, Ph.D., and Timothy Kuzel, M.D., who testified that glyphosate does *not* have the capacity to cause NHL. (24A RT 4307:13-25; 26A RT 4532:9-17,

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[9] IARC is not a *regulatory* agency: it does not make any recommendations "with regard to regulation or legislation, which are the responsibility of individual governments or other international organizations." (6 AA 6244.)

4563:14-17; 26B RT 4576:6-9; 27A RT 4740:22-25, 4753:16-4754:1; 27B RT 4851:23-4852:8.) We discuss the relevant expert testimony in the legal argument section of this brief.

The jury returned a verdict in favor of Plaintiff on each claim. (5 AA 5498-5503.) The jury awarded Plaintiff $819,882.32 in past economic loss; $1,433,327 in future economic loss; $4,000,000 in past noneconomic loss; $33,000,000 in future noneconomic loss; and $250,000,000 in punitive damages, for a total award exceeding $289,000,000. (5 AA 5502-5503.) The award of future noneconomic damages was based on Plaintiff's counsel's argument that Plaintiff should receive $1 million per year for 33 years—the normal life expectancy of a healthy person of Plaintiff's age. (29A RT 5110:11-21; see also 29A RT 5124:11-13.)

Judgment was entered on August 23, 2018. (5 AA 5885-5893.) Monsanto timely filed motions for new trial and judgment notwithstanding the verdict (JNOV). (5 AA 5896-5923; 6 AA 5931-5997.)

On October 10, 2018, the trial court issued a tentative ruling granting Monsanto's motion for JNOV on punitive damages and directing further argument on the remaining issues. (6 AA 6140-6144.) The court wrote that "[g]iven the state of [the] medical and scientific knowledge there is no clear and convincing evidence that Monsanto acted with malice or oppression in manufacturing and selling its [glyphosate-based herbicide] products" and no evidence "that Monsanto acted "despicably." (6 AA 6141.) The court found no evidence that "any

Monsanto employee believed at any time that exposure to Monsanto's [glyphosate-based herbicide] products cause NHL" or that Monsanto " 'pollute[d]' " science by " 'ghostwriting' articles." (*Ibid.*)[10] The tentative ruling was consistent with the court's comments at trial that it had substantial doubt about whether Plaintiff "cobbled together" a submissible case on punitive damages and that the "evidence [of punitive damages] is thin." (23A RT 4026:13-4027:8; 28 RT 4909:20-22.)

After issuing its October 10 tentative ruling, the court became the target of a substantial, coordinated lobbying effort to repudiate the tentative ruling:

- October 12: juror Robert Howard sent the court a two-page email "urg[ing] [the court] to reconsider [its] tentative ruling and to not completely overturn the punitive damages and . . . also . . . to leave the liability intact." (Motion for Judicial Notice (MJN), exh. A.)[11]
- October 13: alternate juror Margaret Cleland sent the court an email saying she "was shocked and saddened to learn that you are considering ordering a new trial" and "urg[ing] [the court] to uphold the trial and verdict." (MJN, exh. B.) The same day, juror Edwin Pang sent

[10] One of Plaintiff's themes at trial was that Monsanto "ghostwrote" scientific literature concerning the genotoxicity of glyphosate. (See, e.g., 29A RT 5056:20-5057:5, 5101:20-5102:16, 5114:8-10.)

[11] Concurrently with the filing of this brief, Monsanto is filing a motion seeking judicial notice of the juror communications and newspaper articles and advertisement discussed herein.

the court an email expressing "frustrati[on] and disappoint[ment]" that the jurors' work may be "compromised." (MJN, exh. C.)

- October 14: juror Gary Kitahata sent the court a third email similar to Mr. Howard's and Ms. Cleland's emails. (MJN, exh. D.)
- October 14: The San Francisco Chronicle published a three-page opinion editorial authored by musician Neil Young and his wife, actress Daryl Hannah, that contained a half-page picture of an emotional Plaintiff and quoted Plaintiff's lawyers, claiming that the trial judge had consistently favored Monsanto throughout the trial and was unjustly going to take away the verdict. (MJN, exh. G.)
- October 15: The San Francisco Chronicle published an article entitled, "Monsanto case: Jurors urge judge not to overturn $289 million award" and quoted from the emails that jurors Kitahata and Howard sent to the court. (MJN, exh. F.)
- October 16: another juror, Charles Kaupp, wrote the court, similarly urging it not to adopt its tentative ruling. (MJN, exh. E.)
- October 17: The San Francisco Chronicle ran a full-page paid advertisement entitled "Dear Judge Suzanne Ramos Bolanos, What Is A Life Worth?" (MJN, exh. H.)

On October 22, 2018, the trial court reversed course and denied the motions for JNOV and for new trial on the condition

that Plaintiff accept a reduction of the punitive damage award from $250 million to $39,253,209.35, an amount equal to his compensatory damages award. (6 AA 6153.) Plaintiff subsequently accepted the reduced punitive damage award. (6 AA 6156-6157.)

Monsanto timely appealed from the judgment and the order denying JNOV. (6 AA 6161-6163.) Plaintiff cross appealed from the order reducing the punitive damage award. (6 AA 6164-6165.)

On January 7, 2019, the trial court awarded Plaintiff $519,772.18 in costs pursuant to a stipulation between the parties concerning only the amount of recoverable costs. (6 AA 6181-6182.) Monsanto timely appealed from the order granting costs. (6 AA 6183-6184.)

LEGAL ARGUMENT

I. The court should reverse the judgment with directions because there is no substantial evidence to support the jury's failure-to-warn and design-defect findings.

There is no substantial evidence to support the failure to warn claim because it was not known or knowable to Monsanto at the time of manufacture or distribution that glyphosate causes cancer, nor is there evidence to support the design defect claim based solely on the inapplicable consumer expectations test.

A. Plaintiff's warning claims fail because the prevailing best scientific scholarship concluded there was no evidence of a potential cancer risk at the time Monsanto's herbicides were manufactured, sold, and distributed.

A jury's decision should be reversed if it is not supported by substantial evidence viewed in the light most favorable to the prevailing party. (*DiMartino v. City of Orinda* (2000) 80 Cal.App.4th 329, 336, 344.) Substantial evidence "'must be reasonable in nature, credible, and of solid value; it must actually be "substantial" proof of the essentials which the law requires in a particular case.'" (*Id.* at p. 336.) But substantial evidence "'"cannot be deemed synonymous with 'any' evidence."'" (*Bowers v. Bernards* (1984) 150 Cal.App.3d 870, 873.) The evidence here did not come close.

To prevail on his failure-to-warn claim, Plaintiff had to prove that Monsanto's herbicides "had potential risks that were known or knowable in light of the scientific and medical knowledge that was generally accepted in the scientific community at the time" they were manufactured, distributed, or sold, and that such risks "presented a substantial danger when" used. (29A RT 5047:3-11; see CACI No. 1205; see also *Anderson v. Owens-Corning Fiberglas Corp.* (1991) 53 Cal.3d 987, 1002-1003 (*Anderson*).)[12] Plaintiff thus had to establish not simply that Monsanto could have figured out that a risk might exist; rather, the risk must have been "known or knowable" based on "the generally recognized and prevailing best scientific and medical knowledge available at the time of manufacture and distribution." (*Anderson*, at p. 1002.)

When a risk is not generally recognized as prevailing in the scientific community, and does not represent the best scholarship available at the time, the risk is not "knowable" and there is no

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[12] The jury was also instructed that Monsanto could be liable under a *negligent* failure-to-warn theory. (29A RT 5047:19-5048:16.) Where, as here, both strict liability and negligent failure-to-warn theories are submitted to the jury, a finding of no liability on the strict liability theory *necessarily* establishes no liability on a negligent failure-to-warn theory based on the same facts. (*Trejo v. Johnson & Johnson* (2017) 13 Cal.App.5th 110, 132-133 (*Trejo*) [jury finding that defendant was not liable under strict liability failure-to-warn theory vitiated liability under a negligent failure-to-warn theory]; *Oxford v. Foster Wheeler LLC* (2009) 177 Cal.App.4th 700, 707, 716-721 [jury's finding of no liability on a strict liability failure-to-warn theory was irreconcilably inconsistent with jury's finding of a negligent failure to warn].)

duty to warn. (See *Anderson, supra*, 53 Cal.3d at pp. 1000-1002; accord, *Conte v. Wyeth, Inc.* (2008) 168 Cal.App.4th 89, 101 (*Conte*) [strict liability failure to warn requires proof " ' "that the defendant did not adequately warn of a particular risk that was known or knowable in light of the generally recognized and prevailing best scientific and medical knowledge available at the time of manufacture and distribution" ' "]; *Rosa v. City of Seaside* (N.D.Cal. 2009) 675 F.Supp.2d 1006, 1014 ["California courts require that plaintiffs present evidence of '*general* recogni[tion] and *prevailing* best scientific and medical knowledge' to meet the 'known or knowable' element of a strict liability claim"]; see also *Rosa v. Taser Intern., Inc.* (9th Cir. 2012) 684 F.3d 941, 946 (*Rosa*) [rejecting argument that a "knowable" risk includes "any risk that was discoverable through modern technology, no matter how unsubstantiated"].)

The committee that crafted the jury instruction for strict liability failure to warn explained what it means for a potential risk to be "known or knowable" for purposes of establishing liability. The "committee believes that this standard is captured by the phrase 'generally accepted in the scientific community.' A risk may be 'generally recognized' as a view (knowledge) advanced by one body of scientific thought and experiment, but it may not be the 'prevailing' or 'best' scientific view; that is, it may be a minority view. The committee believes that when a risk is (1) generally recognized (2) as prevailing in the relevant scientific community, and (3) represents the best scholarship available, it is sufficient to say that the risk is knowable in light of 'the

generally accepted' scientific knowledge." (Directions for Use to CACI No. 1205 (2019) p. 717.)

Here, Plaintiff presented no evidence that any risk associated with glyphosate met any of these three requirements. Indeed, the evidence is undisputed that the "best scholarship available" at the time Plaintiff was exposed and diagnosed was unanimous in concluding that exposure to glyphosate does not pose a carcinogenic risk to humans. The IARC Monograph, which is the principal evidence Plaintiff relied on to establish causation, cannot possibly support Plaintiff's failure to warn claim because it was not published until 2015—three years after Plaintiff was first exposed in 2012, and one year after Plaintiff was diagnosed with cancer in 2014. A publication that is not available until *after* a plaintiff's alleged exposure and diagnosis is not evidence of what was " 'generally recognized and prevailing best scientific and medical knowledge' " several years earlier at the time of manufacture and distribution. (*Rosa*, *supra*, 684 F.3d at pp. 946, 948 [expressing "doubt" that study that did not become publicly available until after plaintiff's death could constitute "generally accepted medical knowledge"].) The jury therefore could not rely on the IARC Monograph to conclude that Monsanto was liable for failing to warn Plaintiff, under either a strict liability or negligence theory.

Even if the IARC Monograph had come earlier, it still would not have provided the substantial evidence Plaintiff needs to prove his failure-to-warn claim. As the trial court recognized, the view that glyphosate has the potential to cause cancer, much

less the potential to cause cancer in actual users of glyphosate-based herbicides, remains a minority view: "Before and after IARC's classification of glyphosate as a 'probable' human carcinogen, regulatory and public health agencies worldwide have reviewed and rejected claims about the carcinogenicity of [glyphosate-based herbicides]." (6 AA 6146; accord, 7 AA 7069 [EPA's Cancer Assessment Review Committee], 7286 [EPA's Office of Pesticide Programs concludes that weight-of-evidence does not support even " 'suggestive evidence of carcinogenic potential' "]; see also 7 AA 7004 [the main chemical safety agency for the European Union].) Moreover, IARC concluded only that glyphosate is a probable carcinogen at some theoretical dose, not that those using glyphosate-containing herbicides were actually at a potential risk for developing cancer from any real-world level of exposure. (12A RT 1717:7-9 ["IARC is trying to do the scientific decision of whether it's possible or not that this can cause cancer"]; 6 AA 6243.) Monsanto had no duty to warn based on an after-the-fact minority view that did not reflect the best prevailing science. (See Directions for Use to CACI No. 1205 (2019) pp. 716-717.)

Beyond the IARC Monograph, which came too late to have any bearing on a duty to warn, there simply was no evidence at trial to satisfy the "known or knowable" requirement. The evidence was undisputed that the "best scholarship available" at the time Plaintiff was exposed to Monsanto's herbicides was unanimous in concluding that there was no causal link between NHL and exposure to glyphosate or glyphosate-containing

herbicides. The conclusion that the best prevailing science did not require a cancer warning was thus not just a majority view, it was the only view. At the time Plaintiff was diagnosed with cancer in 2014, every single regulatory agency that had examined the prevailing science had determined there was insufficient evidence that glyphosate could cause cancer in herbicide users. (See 13B RT 2098:13-23, 2106:12-15, 2120:17-2122:9; see also *ante*, pp. 19-21.)

Indeed, Plaintiff's own treating physicians acknowledged there was no scientific literature available to physicians indicating that glyphosate-based herbicides were a potential cause of Plaintiff's cancer. (See 18B RT 3324:17-3325:19 [Plaintiff testified, "they don't have any scientific evidence that proves that that's what caused it. So that's what they told me."]; see also 17B RT 2995:11-14 [Stanford treating physician and renowned MF expert Dr. Kim testified, "[i]f . . . there was a cause, I would know. But right now, the scientific fact—not my opinion, the scientific fact is that so far there is no established cause for" MF], 2989:6-2992:7 [treating physicians Dr. Tsai, Dr. Pincus, Dr. Truong, Dr. Hoppe, and Dr. Kim formed no opinion as to what caused plaintiff's MF].)

This evidence is dispositive and requires reversal of Plaintiff's failure-to-warn claim. Because the risk that glyphosate causes cancer was not generally recognized as prevailing in the scientific community, and certainly did not represent the best scholarship available at the time, the risk was not "knowable" and Monsanto had no duty to warn. (See

Anderson, supra, 53 Cal.3d at pp. 1000-1002; accord, *Conte*, *supra*, 168 Cal.App.4th at p. 101 [strict liability failure to warn requires proof " ' "that the defendant did not adequately warn of a particular risk that was known or knowable in light of the generally recognized and prevailing best scientific and medical knowledge available at the time of manufacture and distribution" ' "]; *ante*, pp. 41-42.)

Unable to muster evidence of a "general[ ] recogni[tion] and prevailing best scientific and medical knowledge" that glyphosate caused cancer at the time of distribution or manufacture (*Conte*, *supra*, 168 Cal.App.4th at p. 101), Plaintiff instead seeks to flip California's failure-to-warn standard on its head. In opposing the JNOV motion, Plaintiff argued that his expert's view of the science is the prevailing scientific view because there is "not a global consensus that glyphosate does not cause cancer in humans." (6 AA 6064.) Plaintiff further pointed to the testimony of his own expert, Dr. Portier, that "one does not look to the conclusion of regulatory bodies to determine good science; one looks to the methodology." (*Ibid.*) Dr. Portier proclaimed that he was "not challenging the glyphosate decision," but was instead "challenging the way in which they reached that decision, the science that they used and the way they approached that science." (13B RT 2071:21-24.)

This argument fails several times over. Indeed, Plaintiff ignores the proper legal standard under California law. Plaintiff, not Monsanto, had the burden of proving a prevailing scientific view that glyphosate-based herbicides posed a risk to users at the

time those products were distributed, such that Monsanto had a duty to warn. Monsanto had no obligation to prove anything, much less that the prevailing science ruled out all possibility of a cancer risk.

It is, moreover, irrelevant whether Dr. Portier believed that every conclusion from the multitude of government agencies tasked with determining whether glyphosate constituted a health risk was "amazingly wrong" or used what he believed to be flawed methodology. (13A RT 2010:4-25; see also 13B RT 2098:13-23, 2106:12-15, 2120:17-2122:17 [Portier testified he disagreed with the conclusions of European regulatory agencies that the evidence did not establish that glyphosate is carcinogenic].) Such testimony is not substantial evidence that Monsanto would have known that its products posed a risk to customers when it sold those products in light of scientific and medical knowledge that was generally accepted in the scientific community at the time. Dr. Portier's second-guessing is only evidence that he disagreed with the prevailing science, and that his view is a minority view, not the prevailing view. And even Dr. Portier did not hold any of the opinions he testified to at trial during the time period Plaintiff actually used Roundup. (13A RT 2026:20-2027:6.)

Plaintiff also argued that Monsanto could have reviewed existing epidemiology studies to conclude that its products presented risks to customers. (6 AA 6064-6065.) But even Dr. Portier conceded that his reading of the epidemiology established, at most, an *association* between exposure to glyphosate-based herbicides and cancer, not a *causal link*. (E.g., 13A RT 1964:13

["I can't conclude it's causal"]; see also 16B RT 2676:25-2679:5 [IARC concluded that epidemiological evidence of an association was "limited" and that it could not rule out chance, confounding, or bias].) Likewise, IARC, which did not consider the then-unpublished 2018 Agricultural Health Study or North American Pooled Project data, concluded that the epidemiology as a whole showed a 1.3 risk ratio that did not establish a causal association. (16B RT 2678:20-25; 5 AA 5523-5528, 5535.) Plaintiff's experts agreed. (13A RT 1963:20-1964:13; 16A RT 2612:20-2614:21; 16B RT 2679:1-5.) And as noted, EPA and numerous foreign regulatory agencies reviewed all of the epidemiology, as well as all of the toxicology and mechanistic studies, and concluded that glyphosate-based herbicides posed no risk of cancer. (See *ante*, pp. 19-21, 26-30.)

Because prior to plaintiff's diagnosis a cancer risk was not known or knowable based on a unanimous scientific consensus, the failure-to-warn verdicts should be reversed.

B. The jury's design defect finding based on the consumer expectations test is unsupported because Plaintiff required several experts to establish the complex mechanism of his alleged injury from Monsanto's product.

Plaintiff also sought to impose liability based on a design defect theory that did not fit the case and a consumer expectations test that did not fit the evidence. Plaintiff and his experts repeatedly argued during trial that his claim was based

only on a failure to warn. (See 9 RT 1429:11-22 [Plaintiff's counsel: "Nobody here is saying—and we're not going to present evidence—that glyphosate or Roundup should be banned. Nobody is saying that. . . . We are saying, however—and we plan to prove with evidence, that you should just warn; right?"]; 21A RT 3601:14-21 [Plaintiff's expert Sawyer testified he did *not* believe that Roundup should be taken off the market, and that they "could be used" "[i]f there were proper warnings."].) Yet Plaintiff nevertheless ultimately sought to impose liability on Monsanto under an ill-conceived design defect theory as well, effectively attempting to jam a round peg into a square hole. The design defect verdict should be reversed.

California recognizes two tests for establishing a product design defect independent of a warning claim: the consumer expectations test and the risk-benefit test (which Plaintiff did not assert here). (See *Barker v. Lull Engineering Co.* (1978) 20 Cal.3d 413, 435.) It is well settled that "the consumer expectation[s] test *does not apply* merely because the consumer states that he or she did not expect to be injured by the product." (*Trejo*, *supra*, 13 Cal.App.5th at p. 159, emphasis added.) The trial court erred in allowing the jury to impose liability under the consumer expectations test based entirely on a theory that California courts have resoundingly rejected in these circumstances.

Realizing that the consumer expectations test was an " 'unworkable, amorphic, fleeting standard,' "[13] the California Supreme Court clarified the test and limited its applicability in *Soule*, *supra*, 8 Cal.4th at pages 569-570. There, the Court explained that the test "is reserved for cases in which the *everyday experience* of the product's users permits a conclusion that the product's design violated *minimum* safety assumptions, and is thus defective *regardless of expert opinion about the merits of the design*." (*Id.* at p. 567.) Otherwise, only the risk-benefit test applies. (*Id.* at pp. 567-568.)

For the consumer expectations test to apply, the ordinary consumer must actually have " 'legitimate, commonly accepted minimum safety assumptions' " derived from his or her *everyday use* of the product. (*Morson v. Superior Court* (2001) 90 Cal.App.4th 775, 785 (*Morson*).) The key factor is not the complexity or simplicity of the product itself, but rather the complexity of the alleged circumstances of the plaintiff's injury: "[u]nder *Soule* the consumer expectations test can be applied even to very complex products, but only where the circumstances of the product's failure are relatively straightforward." (*Id.* at p. 792.) As one court has explained, the consumer expectations test best applies to "res ipsa-like" cases where the fact of the product

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[13] Indeed, the consumer expectations test has been widely criticized as " 'so open-ended and unstructured, that it provides almost no guidance to the jury [in] determining whether a [design] defect existed.' " (McIntosh, *Tort Reform in Mississippi: An Appraisal of the New Law of Products Liability, Part II* (1997) 17 Miss. C. L.Rev. 277, 287.)

defect can be readily inferred by an ordinary consumer from the very nature of the injury. (*Pruitt v. General Motors Corp.* (1999) 72 Cal.App.4th 1480, 1484 (*Pruitt*).)

Where, however, a plaintiff alleges he was injured based on nonobvious technical or mechanical consequences of a product's design and use, the risk-benefit test, not the consumer expectations test, is the appropriate test to determine whether the product is defectively designed. (See, e.g., *Soule*, *supra*, 8 Cal.4th at pp. 556, 570 [consumer expectations test did not apply where the parties "assumed that quite complicated design considerations were at issue, and that expert testimony was necessary to illuminate" whether a steering wheel that collapsed during a crash was defective]; *Trejo*, *supra*, 13 Cal.App.5th at p. 159 [consumer expectations test inapplicable where it was necessary to explain plaintiff's physiological reaction to medication and to evaluate risks and benefits of medication's design]; *Morson*, *supra*, 90 Cal.App.4th at pp. 779, 788 [claims that latex gloves caused allergic reactions are not subject to consumer expectations test where claims involved issues of allergic sensitization and manufacturing processes that required extensive expert testimony].) *Trejo* and *Morson* are particularly instructive because they involve products that allegedly injured plaintiffs through a complex biochemical mechanism that was not readily apparent to any ordinary user and that required expert testimony to establish.

In *Morson*, plaintiffs suffered an allergic reaction to defendant's latex gloves. The Court of Appeal concluded that the

consumer expectations test did not apply because plaintiffs' case depended on the specifics of the product's chemical composition and the specialized knowledge surrounding it. (*Morson, supra,* 90 Cal.App.4th at p. 793.) As the court explained, plaintiffs were wrong in viewing the latex product "as a simple one that can give rise to simple consumer expectations of safety that have nothing to do with the chemical composition of the material from which the product is manufactured, or any other design characteristics for which specialized knowledge is required for understanding or taking appropriate precautions." (*Ibid.*)

Similarly, the plaintiff in *Trejo* suffered a rare reaction to over-the-counter Motrin, and the Court of Appeal held the trial court erred in applying the consumer expectations test. (*Trejo, supra,* 13 Cal.App.5th at p. 159.) The court concluded that "[t]he circumstances of Motrin's failure involve technical details and expert testimony regarding 'the effect of the product upon an individual plaintiff's health,' " and required balancing the product's risks and benefits. (*Id.* at p. 160, quoting *Morson*, *supra*, 90 Cal.App.4th at p. 792.) Therefore, the consumer expectations test "should not have been applied." (*Ibid.*)

The trial court here should not have submitted the consumer expectations theory to the jury because, as in *Morson* and *Trejo*, the circumstances of Roundup's alleged failure involve technical details and expert testimony about the effect of the product on plaintiff's health. No ordinary user could develop an expectation about whether Roundup could cause cancer based on its mere everyday use. Indeed, Plaintiff had to hire a multitude

of experts to describe the complex medical and technical reasons why Monsanto's herbicides allegedly had the potential to cause harm. These epidemiologists, toxicologists, oncologists, and other experts offered their views on the extensive scientific and regulatory literature concerning whether glyphosate-containing herbicides even have the potential to cause cancer. (See, e.g., 16B RT 2645:1-2646:23 [Dr. Neugut concluded there is "biological plausibility" that Monsanto's products cause "malignancy" and there is a "causal association between glyphosate and NHL" based on several purportedly "moderate" associations found in different epidemiology studies]; see also 13A RT 2010:4-25; 13B RT 2098:13-23, 2106:12-15, 2120:17-2122:17 [Dr. Portier acknowledged that the vast majority of government agencies conclude there is no evidence establishing a causal link between glyphosate-containing herbicides and cancer, but Dr. Portier disagrees].)

These experts also described a complex process by which the surfactants in Monsanto's herbicides purportedly cause a "synergistic effect" and increase the likelihood of injury by promoting absorption of glyphosate into the user's skin.[14] (21A RT 3610:12-3612:25 [surfactants and glyphosate "in some cases [have a] synergistic effect to cause cancer" and their interaction " 'increase[s] glyphosate absorption through the skin' " by the " '[r]emoval of lipids from the epidermal surface due to surfactant

[14] Surfactants are ingredients in Monsanto's herbicides that promote the absorption of glyphosate into plants. (5 AA 5542, 5649.)

action' "].) Where, as here, complex expert testimony is necessary to describe the nature of the product's defect and how it caused the plaintiff's injury, the consumer expectations test does not apply.

Plaintiffs often argue that the consumer expectations test applies because the consumer did not expect to be injured from using the product, and that is precisely what Plaintiff's counsel argued to the jury in this case: "Simply put, in using Roundup as it's sold on the market today, would you think that it causes cancer?" (29A RT 5119:20-21.) But of course, "it could be said that any injury from the intended or foreseeable use of a product is not expected by the ordinary consumer." (*Trejo*, *supra*, 13 Cal.App.5th at pp. 158-159.) "If this were the end of the inquiry, the consumer expectation[s] test always would apply and every product would be found to have a design defect." (*Id.* at p. 159.)

Here, the trial court instructed the jury on the consumer expectations test, even though it acknowledged that the basis for doing so was "thin." (28 RT 4904:14-17.) The trial judge apparently accepted Plaintiff's argument that "[t]his case fits squarely within the asbestos case[s]." (28 RT 4904:8-9.) The asbestos cases are not persuasive here.

As *Morson* explained, asbestos injury cases are "of limited value . . . due to the problem of comparing apples and oranges in such fact-specific circumstances." (*Morson*, *supra*, 90 Cal.App.4th at p. 786.) In the asbestos cases, courts concluded that seemingly innocuous products fail to meet a consumer's minimum safety assumptions if they are manufactured in a way that allows them

to release a *known* toxin like asbestos in the presence of product users. (See, e.g., *Saller v. Crown Cork & Seal Co., Inc.* (2010) 187 Cal.App.4th 1220, 1229, 1232-1233, 1238 [observing that "it was well known by the 1970's that asbestos was a health risk" such that an ordinary consumer in 2005 could rely on their "everyday experience" to conclude that products exposing persons to asbestos are unreasonably dangerous]; *Sparks v. Owens-Illinois, Inc.* (1995) 32 Cal.App.4th 461, 474-475 [concluding a jury could determine whether insulation "made of friable material that had to be cut and shaped to perform its insulating function" and thereby released known toxins violated a user's minimum safety expectations].) A product containing a *known* carcinogen such as asbestos may justify use of the consumer expectations test; a product containing an ingredient like glyphosate determined by scientific and regulatory authorities across the world to not be a known carcinogen does not.

Construing the asbestos cases to permit a consumer expectation claim on these facts is entirely inconsistent with binding Supreme Court precedent in *Soule*, as well as the well-reasoned opinions of several Courts of Appeal. *Soule* makes clear that where expert testimony is needed to establish the dangers of a product, the risk-benefit test, and not the consumer expectations test, applies. (*Soule*, *supra*, 8 Cal.4th at p. 567 ["the consumer expectations test is reserved for cases in which . . . the product's design violated *minimum* safety assumptions, and is thus defective *regardless of expert opinion about the merits of the design*]; *Pruitt, supra,* 72 Cal.App.4th at pp. 1484-1485 [declining

to follow expansive view of consumer expectations test articulated by another court because it "conflicts with our Supreme Court's discussion of the applicability of the test in *Soule*"].)

That is particularly true where, as here, expert opinion is needed not just to establish that Monsanto's products caused Plaintiff's injuries, but also to establish the very nature of those products' alleged defects. Because no consumer could form a safety expectation about Roundup based on his or her everyday experience using the product, and expert testimony is the *only* way for a jury to conclude that Monsanto's herbicides are defective, the consumer expectations theory does not apply as a matter of law.

II. The court should reverse the judgment because there is no substantial evidence of causation.

The court should reverse the judgment on all of Plaintiff's claims because there is no substantial evidence to support an essential common element—that Monsanto's herbicides were, to a reasonable medical probability, a substantial factor, or proximate cause, of his injury.

California law recognizes that causation is "especially troublesome" with cancer because "it is frequently difficult to determine the nature and cause of a particular cancerous growth." (*Jones v. Ortho Pharmaceutical Corp.* (1985) 163 Cal.App.3d 396, 403 (*Jones*).) Given those uncertainties, California law prohibits finding liability where causation is

merely medically "possible" but does not rise to the level of "reasonable medical probability," as demonstrated by competent expert testimony. (*Id.* at pp. 402-403.) "A possible cause only becomes 'probable' when, *in the absence of other reasonable causal explanations*, it becomes more likely than not that the injury was a result of its action. This is the outer limit of inference upon which an issue may be submitted to the jury." (*Id.* at p. 403, emphasis added.)

As previously noted, Plaintiff's epidemiological expert conceded that none of the epidemiological studies he considered showed a statistically significant result—i.e., a relative risk ratio of 2.0 or greater. (16B RT 2682:13-15, 2702:25-2703:3; see *Cooper v. Takeda Pharmaceuticals America, Inc.* (2015) 239 Cal.App.4th 555, 593 (*Cooper*) [" 'When . . . epidemiological studies are offered to prove *specific* causation . . . under California law those analyses must show a relative risk greater than 2.0 to be "useful" to the jury' "].) Thus, to prove that Monsanto's herbicides caused his NHL, Plaintiff offered the testimony of Dr. Nabhan and Dr. Sawyer. Neither expert's testimony is legally sufficient to prove causation because they both ignored the undisputed fact that the vast majority of NHL cases (at least 80 percent) are of unknown (i.e., idiopathic) origin.

A. Dr. Chadi Nabhan's differential etiology was insufficient to establish causation.

Despite professing to apply a differential etiology, Dr. Nabhan ultimately conceded at trial that Plaintiff " 'could well be someone who would have developed mycosis fungoides when he did, whether he was exposed to glyphosate or not.' " (17B RT 3002:21-3003:4.) Given that admission, it is perhaps unsurprising that Dr. Nabhan's differential etiology was legally flawed.

Most importantly, Dr. Nabhan did not properly rule out the possibility of an unknown cause. A differential etiology cannot support a finding of causation where the majority of the instances of the disease are of unknown origin. That is because "differential etiologies are . . . only valid if . . . a substantial proportion of competing causes are known." (Federal Jud. Center, Reference Manual on Scientific Evidence, *supra*, pp. 617-618, fn. omitted.) "Thus, for diseases for which the causes are largely unknown, . . . a differential etiology is of little benefit." (*Ibid.*)

In *Hall v. Conoco Inc.* (10th Cir. 2018) 886 F.3d 1308, 1314, for example, the Tenth Circuit found that "because the evidence had pointed to idiopathic causes in most cases of acute myeloid leukemia . . . the district court could reasonably view the failure to rule out idiopathic causes as a fatal error tainting the differential diagnosis." Likewise, in *Tamraz v. Lincoln Electric Co.* (6th Cir. 2010) 620 F.3d 665, 674, 675, the Sixth Circuit reversed admission of "differential diagnosis" testimony where

idiopathic causation "currently accounts for the vast majority of Parkinson's Disease cases, making it impossible to ignore and difficult to rule out." In *Bland v. Verizon Wireless, (VAW) L.L.C.* (8th Cir. 2008) 538 F.3d 893, 897, the Eighth Circuit found that "[w]here the cause of the condition is unknown in the majority of cases, [an expert] cannot properly conclude, based upon a differential diagnosis," the plaintiff's "exposure to freon was 'the most probable cause' of [his] exercise-induced asthma." (See *Milward v. Rust-Oleum Corp.* (1st Cir. 2016) 820 F.3d 469, 475-476 (*Milward*); *Kilpatrick v. Breg, Inc.* (11th Cir. 2010) 613 F.3d 1329, 1342-1343 (*Kilpatrick*); *Black v. Food Lion, Inc.* (5th Cir. 1999) 171 F.3d 308, 312-314 (*Black*).) Similarly, while "California has rejected the notion that an expert must 'exclude *all* "possibilities" ' in reaching a specific causation opinion," the expert must do so when, as here, there is " 'substantial evidence' of an alternative explanation for the disease." (*Cooper*, *supra*, 239 Cal.App.4th at pp. 585-586, emphasis added.)[15]

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[15] In *Cooper*, the court rejected the challenge to a differential etiology because the defendant had only raised a "bare conceivability of another possible cause," not substantial evidence of one. (*Cooper*, *supra*, 239 Cal.App.4th at p. 586; accord, *Sarti v. Salt Creek Ltd.* (2008) 167 Cal.App.4th 1187, 1210-1211.) This is consistent with the law on differential etiology. (See, e.g., *In re Paoli R.R. Yard PCB Litigation* (3d Cir. 1994) 35 F.3d 717, 758-759, fn. 27 ["plausible alternative cause" should be ruled out]; *Soldo v. Sandoz Pharmaceuticals Corp.* (W.D.Pa. 2003) 244 F.Supp.2d 434, 567 ["reasonable alternative causes" should be ruled out]; see also *Wendell v. GlaxoSmithKline LLC* (9th Cir. 2017) 858 F.3d 1227, 1234, 1237 [excusing expert's failure to rule out all potential or possible alternative causes in a differential

(continued...)

It is undisputed and indisputable that the vast majority (at least 80 percent) of NHL cases, including MF, are of unknown origin. (17A RT 2812:8-10, 2844:4-10; 17B RT 2996:19-2998:21; 27A RT 4789:20-4790:4.) Indeed, Dr. Nabhan repeatedly admitted that the majority of NHL cases are idiopathic. (17B RT 2812:8-10, 2990:6-14, 2997:17-23, 2998:16-21.) Thus, Dr. Nabhan—not even knowing what those unknown causes are—could not possibly rule them out in Plaintiff's case. Dr. Nabhan nonetheless did not even try, disregarding the likelihood that Plaintiff's MF resulted from an unknown cause. (17B RT 2996:19-2998:21; see 17A RT 2812:8-10.) He, instead, made a speculative leap from Plaintiff's exposure to Monsanto's products to the unsupported conclusion that this exposure must have been the cause of his NHL. He gave no reason for doing so other than the fact that he had ruled in Plaintiff's exposure to Monsanto's herbicides as a potential cause. (See 17A RT 2847:22-2848:6, 2849:9-21; 17B RT 2996:10-3000:13, 3002:10-3003:7.) If the judgment is allowed to stand on this basis, anyone who is unfortunate enough to get cancer and who was ever exposed to the multitude of substances found by IARC to be "probably carcinogenic" could successfully establish causation in a court of law based on nothing more than the ability to find a doctor

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(...continued)
diagnosis where drug manufactured by defendant was a well-known carcinogen and there was evidence that plaintiff had only a one-in-six-million chance of developing cancer without being exposed to that drug].) Here, there is substantial evidence of idiopathic causes that must be ruled out.

willing to state his personal belief that the cancer was caused by the substance instead of the numerous unknown factors that likely caused the cancer.

In short, it was not enough for Dr. Nabhan to rule in Roundup, exclude a few plausible alternative causes (see *ante*, pp. 33-34), but then ignore all others, including idiopathic causes (see *Milward*, *supra,* 820 F.3d at pp. 475-476 [ruling out obesity and smoking as causes of disease insufficient where the majority of cases are idiopathic]; *Black, supra*, 171 F.3d at pp. 310, 312-314 [ruling out some causes of disease insufficient where vast majority of cases are idiopathic]; see also *Kilpatrick*, *supra*, 613 F.3d at p. 1342). His disregard for the likely idiopathic origins of Plaintiff's NHL—an alternative cause for which there was not just substantial, but undisputed evidence—means that his differential etiology is mere speculation, a "possibility." And because his causation opinion was based solely on that differential etiology, his opinion cannot support a finding that Monsanto's herbicides caused Plaintiff's NHL. (See *Jones*, *supra*, 163 Cal.App.3d at pp. 402-403; see also *Sargon Enterprises, Inc. v. University of Southern California* (2012) 55 Cal.4th 747, 770 (*Sargon*) [" 'an expert opinion based on speculation or conjecture is inadmissible' "]; *Lockheed Martin Corp. v. Superior Court* (2003) 29 Cal.4th 1096, 1110 [" '[a]n expert's opinion which rests upon guess, surmise or conjecture, rather than relevant, probative facts, cannot constitute substantial evidence' "]; *Miranda v. Bomel Construction Co., Inc.* (2010) 187 Cal.App.4th 1326, 1337 [rejecting as speculative expert testimony that failed

to account for undisputed testimony that there were other likely sources of plaintiff's illness other than exposure to soil under defendant's control].)[16]

Dr. Nabhan's testimony was legally insufficient to establish causation.

B. Dr. William Sawyer's speculative testimony was insufficient to establish causation.

Likewise, Dr. Sawyer's summary conclusion that Plaintiff's NHL was caused by his exposure to Monsanto's herbicides (21B RT 3781:18-21; see also 21A RT 3601:9-13) was unreliable,

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[16] Apart from his failure to properly rule out possible idiopathic causes for Plaintiff's NHL, Dr. Nabhan's methodology was unreliable from the start to the extent that, in ruling in Monsanto's herbicides as a possible cause, Dr. Nabhan (a) relied primarily upon the IARC Monograph (17A RT 2793:5-23, 2819:5-15; 17B RT 2896:20-2897:9, 2901:15-19, 2997:5-16), which did not determine whether there is an actual carcinogenic risk at real-world exposures (see *ante*, pp. 22-23); (b) relied upon selective data points in the McDuffie (2001), De Roos (2003), and Eriksson (2008) studies, which were largely unadjusted for other pesticides (see *ante*, p. 27) and ignored the determination of both IARC and Plaintiff's expert epidemiologist, Dr. Neugut, that the risk ratio was approximately 1.3, far short of the minimum risk ratio of 2.0 required for epidemiology to be probative of specific causation (see *Cooper*, *supra*, 239 Cal.App.4th at p. 593; 16A RT 2612:20-2614:21; 17A RT 2825:12-2830:5; 17B RT 2911:8-21, 2913:11-2938:11); and (c) testified without regard to what level of exposure is significant in causing NHL and whether Plaintiff was subjected to that amount of exposure, even though he admitted that "minimal exposure may not be that significant" in causing NHL (17A RT 2835:8; see also 17A RT 2834:2-2836:10, 2847:22-2848:6, 2867:2-2868:13; 17B RT 3035:13-25, 3036:2-21, 3041:6-3042:3).

speculative, and legally insufficient to support a finding of causation.[17] Like Dr. Nabhan, Dr. Sawyer made no attempt to account for the fact that at least 80 percent of NHL cases are of unknown cause. Indeed, he did not purport to perform a differential etiology at all. He therefore had no basis to conclude that one cause of Plaintiff's NHL was more likely or probable than the unknown causes that are responsible for at least 80 percent of NHL cases. Dr. Sawyer's opinion, although purportedly stated to a reasonable degree of medical probability, amounts to no more than a possibility, a guess entitled to no evidentiary weight. (See *Sargon, supra*, 55 Cal.4th at p. 770; *Jones, supra,* 163 Cal.App.3d at pp. 402-403.)

In sum, Plaintiff failed to prove the crucial element of causation. Monsanto is therefore entitled to judgment as a matter of law. (See, e.g., *Cassista v. Community Foods, Inc.* (1993) 5 Cal.4th 1050, 1066; *McCoy v. Hearst Corp.* (1991) 227 Cal.App.3d 1657, 1661 [when plaintiff has had a "full and fair opportunity to present [his] case" but has failed to produce sufficient evidence to support his claim, "judgment for defendant is required"].)

[17] Dr. Sawyer is a toxicologist, not a medical doctor. (21A RT 3585:20-3586:22.

III. The court should reverse the judgment with directions because Plaintiff's liability claims are preempted.

As demonstrated below, the warning and design defect claims in this case are preempted by the impossibility and express preemption doctrines.

A. Impossibility preemption.

Federal law preempts state law "where it is 'impossible for a private party to comply with both state and federal requirements.' " (*Mutual Pharmaceutical Co., Inc. v. Bartlett* (2013) 570 U.S. 472, 480 [135 S.Ct. 2466, 186 L.Ed.2d 607] (*Bartlett*); see also *Trejo*, *supra*, 13 Cal.App.5th at pp. 147, 149.) In particular, a state tort claim is preempted if the claim seeks product changes that cannot be made without first obtaining the approval of a federal regulatory agency. (See *Bartlett*, at pp. 480-487; *PLIVA, Inc. v. Mensing* (2011) 564 U.S. 604, 617-624 [131 S.Ct. 2567, 180 L.Ed.2d 580] (*Mensing*); *Wyeth v. Levine* (2009) 555 U.S. 555, 568-573 [129 S.Ct. 1187, 173 L.Ed.2d 51] (*Wyeth*).) Thus, "[i]f a private party . . . cannot comply with state law without first obtaining the approval of a federal regulatory agency, then the application of that law to that private party is preempted." (*Gustavsen v. Alcon Laboratories, Inc.* (1st Cir. 2018) 903 F.3d 1, 9; see also *Trejo*, at pp. 152-153 & fn. 22 [applying *Mensing* and *Bartlett* to over-the-counter medicine].)

Here, impossibility preemption bars Plaintiff's design defect and failure-to-warn claims because Monsanto cannot

change the active ingredient in Roundup (glyphosate) or inert ingredients (surfactants) without EPA's prior approval. (See *Bartlett*, *supra*, 570 U.S. at pp. 480-487; Off. of Pesticide Programs, U.S. Environmental Protection Agency, Pesticide Registration Notice (PR) 98-10: Notifications, Non-Notifications and Minor Formulation Amendments (Oct. 22, 1998) pp. 8-9 (hereafter PRN 98-10) [§§ III(A), III(B)(1)], 14 [§ V; "a formulation change may only be accomplished through submission of an application for amended registration"]; 40 C.F.R. §§ 152.44, 152.46 (2018).)

Nor could Monsanto add a cancer warning to the label of Roundup without first obtaining EPA approval. (40 C.F.R. §§ 152.44 & 152.46 (2018).) It is undisputed that warnings about human health, such as cancer, must appear in the " 'Precautionary Statements' " section of the label, and can only be amended by "an application for amended registration" to EPA for its approval. (See 40 C.F.R. §§ 152.44(a), 156.70(a); PRN 98-10, *supra*, at p. 8 [prohibiting a "change in the . . . precautionary statements" through notification or non-notification to EPA]; 1 AA 294-295, 476-479.)

Moreover, there is clear, indeed dispositive, evidence that EPA would have rejected a cancer warning had Monsanto proposed one.[18] (See *Wyeth*, *supra*, 555 U.S. at pp. 571-572;

[18] It was unnecessary for Monsanto to demonstrate that EPA would have rejected a warning because prior approval was necessary for Monsanto to change the label. (See *Bartlett*, *supra*, (continued...)

Dolin v. GlaxoSmithKline LLC (7th Cir. 2018) 901 F.3d 803, 816 [state tort claims preempted where federal regulatory agency considered and rejected concerns about safety risk when prior approval not required].) Evidence introduced on summary adjudication showed that (a) EPA found glyphosate not likely to be carcinogenic to humans in 1993, 1997, 2002, 2004, 2008, and 2013, and reiterated those findings after IARC issued Monograph 112; and (b) EPA issued notices approving labels for glyphosate-based herbicides without cancer warnings both before and after IARC published its Monograph. (1 AA 521-525 [Undisputed Material Fact Nos. 5-12, 14-15, 17, 20-24].) These repeated and consistent findings are "clear evidence" that the agency would have rejected a cancer warning. EPA would not possibly have required a cancer warning for a product that it determined was not likely to be carcinogenic. Consequently, impossibility preemption applies for this independent reason. (E.g., *Seufert v. Merck Sharp & Dohme Corp.* (S.D.Cal. 2016) 187 F.Supp.3d 1163, 1169; *Dobbs v. Wyeth Pharmaceuticals* (W.D.Okla. 2011) 797 F.Supp.2d 1264, 1276-1277, 1280.)

B. Express preemption.

Plaintiff's warnings claims are also expressly preempted because FIFRA expressly prohibits states from imposing "any requirements for labeling or packaging" that are "in addition to

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570 U.S. at pp. 486-487; *Mensing*, *supra*, 564 U.S. at pp. 618-624.)

or different from" the requirements imposed by FIFRA. (7 U.S.C. § 136v(b); accord, *Bates v. Dow Agrosciences LLC* (2005) 544 U.S. 431, 447 [125 S.Ct. 1788, 161 L.Ed.2d 687] (*Bates*).) Common law failure-to-warn claims such as Plaintiff's are preempted if they impose more expansive obligations on the manufacturer than FIFRA's labeling requirements. (*Bates*, at pp. 453-454.)

The failure-to-warn claim in this case extended to "potential risks . . . to persons using or misusing [Roundup] in an intended or reasonably foreseeable way" (5 AA 5500; see also 5 AA 5501), which is a more expansive warning obligation than FIFRA's requirement to warn about risks associated with "widespread and commonly recognized" practices (see 7 U.S.C. §§ 136(q)(1)(F) & (G), 136a(c)(5)(D)).

Moreover, there was evidence from which the jury could find liability under this expansive California standard, but not under FIFRA. For example, in April 2014, Plaintiff accidentally caught the hose of his applicator between the sidewalk and asphalt, causing Roundup to spray uncontrollably and penetrate his body suit. (18B RT 3258:20-3262:8; see 17B RT 2970:13-16.) In January 2015, his backpack leaked. (18B RT 3246:21-3247:24.) Because a jury could find these mishaps "reasonably foreseeable" under California law but not a "widespread and commonly recognized practice" for which FIFRA would require warnings, Plaintiff's warning claims are expressly preempted. (See *Bates*, *supra*, 544 U.S. at pp. 447-454.)

IV. Alternatively, the court should reverse the judgment and remand for a new trial because the trial court abused its discretion by excluding EPA and foreign regulatory documents offered by Monsanto while admitting the IARC document offered by Plaintiff.

Despite allowing Plaintiff to admit IARC Monograph 112 into evidence (12A RT 1715:24-1716:6, 1740:19-24), the trial court excluded as hearsay several EPA and foreign regulatory agency reports that Monsanto offered to show contrary conclusions on the carcinogenicity of glyphosate. (14A RT 2202:13-2205:11, 2260:7-2261:16; 14B RT 2288:14-21; 20 RT 3529:1-3530:5; see also 5 AA 5037-5348, 5366-5459; 7 AA 6951-7031, 7060-7146, 7147-7373, 7374-7595, 7596-7886, 7891-7960; 8 AA 7963-8000, 8003-8064.)[19] The trial court ultimately allowed Monsanto to admit two EPA documents—EPA's Office of Pesticide Programs' September 12, 2016 Report (7 AA 7147-7373) and EPA's September 1993 Reregistration Eligibility Decision (7 AA 7596-7886)—but only for "the limited purpose of showing Monsanto's state of mind regarding the state of the science and for no other purpose" (29A RT 5054:22-5055:6). And the court refused to

[19] Monsanto sought to admit certain EPA and foreign regulatory reports during trial. (9 RT 1523:23-1525:19; 13B RT 2122:18-19; 14A RT 2202:13-22; 5 AA 5037-5348, 5366-5459.) The trial court sustained Plaintiff's objections to certain of these reports. (13B RT 2122:18-2124:12; 14A RT 2202:13-2205:11; 14B RT 2288:14-21; 20 RT 3529:1-3530:5.) In so ruling, the court made clear that she believed all regulatory reports offered by Monsanto were inadmissible hearsay. (See, e.g., 20 RT 3529:1-3530:5.)

allow any of the foreign regulatory documents into evidence for any purpose. (See *ante*, p. 68.)

As a result of the trial court's rulings, the jury was told they could consider IARC Monograph 112's conclusion that glyphosate is a probable carcinogen for its alleged truth, but not consider EPA's opposite conclusion on exactly the same subject for its truth. Still worse, the jury was unable to properly consider responsive conclusions from numerous foreign regulators who disagreed with IARC and determined that exposure to glyphosate does not pose a carcinogenic risk to humans. These foreign regulatory conclusions were particularly important in light of Plaintiff's concerted effort to attack EPA's regulatory process. (See 29A RT 5066:6-9 [Plaintiff's counsel: EPA "ha[s] a dog in the fight"], 5127:15-18 ["Why does Monsanto get special treatment from the EPA? I don't know. Maybe it's Jess Rowland. Maybe there's something more sinister. I don't know. But what I do know is they got it wrong."].)

The trial court's ruling is reversible error because the EPA and foreign regulatory reports are admissible under the "official records" exception to the hearsay rule and their exclusion was highly prejudicial and resulted in a profoundly unfair presentation of the evidence.

An official record is exempt from the hearsay rule if "(a) [t]he writing was made by and within the scope of duty of a public employee"; "(b) [t]he writing was made at or near the time of the act, condition, or event"; and "(c) [t]he sources of information and method and time of preparation were such as to

indicate its trustworthiness." (Evid. Code, § 1280 (section 1280).) Where subparts (a) and (b) are satisfied, there is a presumption the records are trustworthy under subpart (c), and the party opposing admission of the records must show otherwise. (See *Preis v. American Indemnity Co.* (1990) 220 Cal.App.3d 752, 759.)[20] The regulatory reports offered by Monsanto easily satisfied these requirements:

(a) The reports were drafted by employees of the regulatory agency;

(b) The reports memorialized a recent official agency determination; and

(c) The reports are trustworthy because they were prepared by the entity tasked by law with evaluating the carcinogenicity of glyphosate and regulating its sale, and contain the official regulatory seal. Moreover, Plaintiff did not rebut the presumption of trustworthiness.

Indeed, regulatory reports (both foreign and domestic) are regularly admitted as "official records" exempt from the hearsay rule. In *People v. ConAgra Grocery Products Co.* (2017) 17 Cal.App.5th 51, 138-140, the Court of Appeal approved the introduction of a wide variety of regulatory and other public documents under Evidence Code section 1280, including a National Institutes of Health monograph, a "mineral yearbook"

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[20] Meeting the requirements of section 1280 eliminates the need for witness testimony on the trustworthiness of an official record. (Cal. Law Revision Com. com., 29B West's Ann. Evid. Code (2015 ed.) foll. § 1280, p. 48; *People v. George* (1994) 30 Cal.App.4th 262, 274.)

published by the U.S. Department of the Interior, a " 'Weekly Report' " published by the CDC, and a WHO "booklet on childhood lead poisoning." (See also *AO Alfa-Bank v. Yakovlev* (2018) 21 Cal.App.5th 189, 206 [" 'public entity' in turn includes every form of public authority, 'whether foreign or domestic' "]; *Jazayeri v. Mao* (2009) 174 Cal.App.4th 301, 318 [U.S. Department of Agriculture food safety inspectors' poultry condemnation certificates are official records exempt from the hearsay rule]; *In re Aircrash in Bali, Indonesia* (9th Cir. 1989) 871 F.2d 812, 816 [FAA report properly admitted under federal public document exception to hearsay rule]; *Palmisano v. Olin Corp.* (N.D.Cal., June 24, 2005, No. C-03-01607 RMW) 2005 WL 6777560, at p. *3 [nonpub. opn.] [" 'EPA reports are generally admissible' "].)

The trial court's erroneous exclusion of the regulatory reports was prejudicial particularly in light of the court's earlier admission of IARC Monograph 112. Indeed, many of the regulatory assessments Monsanto sought to admit were triggered by and directly responsive to IARC's 2015 determination. Just some of the excluded evidence included:

- 2016 EPA Office of Pesticides Programs' evaluation of the "extensive database" of scientific studies, and determination that the "available data at this time do no[t] support a carcinogenic process for glyphosate." (7 AA 7523.)
- 2017 Health Canada's Glyphosate "Re-evaluation Decision" of "[b]oth the active ingredient and formulated

products," consideration of the IARC Monograph, and conclusion that "Glyphosate is not genotoxic and is unlikely to pose a human cancer risk." (7 AA 7896; see 7 AA 7913.)

- 2016 European Union Chemicals Agency's conclusion that "based on the epidemiological data as well as the data from long-term studies in rats and mice, taking a weight of evidence approach, no classification for carcinogenicity is warranted." (7 AA 7004, original formatting omitted.)
- 2017 Australian government's "consideration of the evidence for a formal reconsideration of glyphosate" (8 AA 8003) following publication of IARC Monograph 112 and conclusion that "exposure to glyphosate does not pose a carcinogenic or genotoxic risk to humans" (8 AA 8014).

These regulatory documents were critical to Monsanto's defenses that glyphosate did not cause Plaintiff's MF, that a risk of cancer was not known or knowable by generally accepted science, and that Monsanto did not act with malice or oppression by relying on a global regulatory consensus that glyphosate is not a human carcinogen.

Although references were made to the regulatory actions discussed in these documents during the testimony at trial (see *ante*, pp. 19-21, 24-25), Plaintiff's counsel exacerbated the prejudice by emphasizing to the jury in closing argument that it could consider IARC Monograph 112 for its truth but it could not

consider any regulatory documents. Plaintiff's counsel told the jury: "This [limiting] instruction does not apply to the IARC Monograph. You can look at that document, and you can believe the truth of the statements made in it, but you cannot believe the truth of [the EPA documents]." (29A RT 5064:23-5065:5.) Setting aside the gross mischaracterization of the limiting instruction, Plaintiff's counsel effectively misled the jury as to why only two regulatory documents were in evidence: "They didn't explain anything. And that's why the 2017 report is not in evidence[,] . . . Monsanto didn't put that in evidence." (29A RT 5066:13-17.)

When the central issue in the trial centered on whether it was established that glyphosate could cause cancer (and thus whether Monsanto should have so warned), excluding evidence of the overwhelming regulatory consensus that no such link has been established—while simultaneously allowing the conclusions of IARC to come in unfettered—resulted in a profoundly distorted picture of reality. A new trial is required because the trial court abused its discretion in excluding official regulatory documents offered by Monsanto that directly contradict and repudiate the IARC Monograph, and substantially prejudiced Monsanto by simultaneously admitting the IARC Monograph for its truth.

V. The punitive damages award should be stricken because there was no evidence, much less clear and convincing evidence, that Monsanto acted with malice or oppression.

Regulators in the United States and abroad have consistently agreed that exposure to glyphosate, one of the most studied substances in the world, does not pose a risk of cancer to humans. (See *ante*, pp. 19-21, 24-26.) Even if there was some basis for a jury to disagree with the experts at EPA and many other respected agencies, the record cannot possibly support a finding of *clear and convincing* evidence that Monsanto acted with *malice and oppression*—simply for selling a product that expert regulators believed, and still believe, is safe for human use.

In its tentative ruling granting JNOV for Monsanto on the question of punitive damages, the trial court reached exactly this conclusion. (See 6 AA 6140-6142.) Yet after immense public pressure, and with minimal explanation, erroneous statements of the law, and no evidentiary support, the trial court reversed course. The trial court was right the first time: there is no basis for the exceptional remedy of punitive damages in this case.

A. As the trial court originally found, it is not "malicious" to act consistent with the best scientific evidence and the views of expert regulators.

Under California law, an award of punitive damages is reserved for the most egregious conduct. To recover punitive damages, a plaintiff must prove "by clear and convincing evidence that the defendant has been guilty of oppression, fraud, or malice." (Civ. Code, § 3294, subd. (a).) Only "malice" is at issue here.[21] " 'Malice' " is limited to conduct done with the intent to harm the plaintiff (which is not alleged here), or "despicable conduct which is carried on by the defendant with a willful and conscious disregard of the rights or safety of others." (Civ. Code, § 3294, subd. (c)(1).)

Both of these elements—despicable conduct and conscious disregard—justifiably present high hurdles. And each must be proved by the stringent clear and convincing evidence standard, which "requir[es] that the evidence be so clear as to leave no substantial doubt; sufficiently strong to command the

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[21] The jury was not asked to determine that Monsanto committed fraud. In connection with the JNOV motion, Plaintiff made no independent argument supporting a finding of "oppression," and the trial court did not address oppression at all. (6 AA 6067-6080, 6150-6151.) Nor could there be any argument that Plaintiff suffered "cruel and unjust hardship" as required for a finding of "oppression," which is distinct from "injury" as used to define "malice." (See, e.g., *I-CA Enterprises, Inc. v. Palram Americas, Inc.* (2015) 235 Cal.App.4th 257, 277.)

unhesitating assent of every reasonable mind." (*In re Angelia P.* (1981) 28 Cal.3d 908, 919, internal quotation marks omitted.) " '[P]unitive damages should not be allowable upon evidence that is merely consistent with the hypothesis of malice, fraud, gross negligence or oppressiveness. Rather some evidence should be required that is inconsistent with the hypothesis that the tortious conduct was the result of a mistake of law or fact, honest error of judgment, over-zealousness, mere negligence or other such noniniquitous human failing.' " (*Tomaselli v. Transamerica Ins. Co.* (1994) 25 Cal.App.4th 1269, 1288, fn. 14 (*Tomaselli*).)

As the California Supreme Court has explained, "the adjective 'despicable' is a powerful term." (*College Hospital Inc. v. Superior Court* (1994) 8 Cal.4th 704, 725.) It "connotes conduct that is . . . so vile, base, contemptible, miserable, wretched or loathsome that it would be looked down upon and despised by ordinary decent people." (*Lackner v. North* (2006) 135 Cal.App.4th 1188, 1210, internal quotation marks omitted.) Despicable conduct is "conduct [that] has been described as '[having] the character of outrage frequently associated with crime.' " (*Tomaselli*, *supra*, 25 Cal.App.4th at p. 1287.)

Establishing willfulness or conscious disregard is no easier a burden. A plaintiff must show " 'that the defendant was aware of the *probable dangerous consequences* of his conduct, and that he willfully and deliberately failed to avoid those consequences.' " (*Hoch v. Allied-Signal, Inc.* (1994) 24 Cal.App.4th 48, 61 (*Hoch*), emphasis added.) "Put another way, the defendant must 'have

actual knowledge of the risk of harm it is creating and, in the face of that knowledge, fail to take steps it knows will reduce or eliminate the risk of harm.' " (*Pacific Gas & Electric Company v. Superior Court* (2018) 24 Cal.App.5th 1150, 1159 (*PG&E*).) Negligence, gross negligence, and even recklessness are not enough. (*Id.* at p. 1170; *Ebaugh v. Rabkin* (1972) 22 Cal.App.3d 891, 894.)

There is no evidence in the record that Monsanto had "actual knowledge" that cancer was a "probable consequence" of exposure to glyphosate. Indeed, it would be shocking if such evidence did exist, because it is incompatible with the robust scientific record and regulatory consensus. The trial court originally recognized this consensus. It noted that "glyphosate has developed one of the largest bodies of scientific data of any substance in the world." (6 AA 6146; see *ante*, p. 20.) And it accurately observed that "all of the worldwide regulators continue to find that glyphosate-based herbicides . . . are safe and not carcinogenic, including US EPA, EFSA, ECHA, Australia, New Zealand, and the German BfR authority." (6 AA 6141; see *ante*, pp. 19-21, 24-27.) Unsurprisingly against that backdrop, "Plaintiff presented no evidence that any Monsanto employee believed at any time that exposure to Monsanto's [herbicide] products cause NHL." (6 AA 6141.) Thus, "[g]iven the state of medical and scientific knowledge there is no clear and convincing evidence that Monsanto acted with malice or oppression in manufacturing and selling its [herbicide] products." (*Ibid.*)

The tentative ruling was exactly right, and the sound reasons the trial court originally gave compel the conclusion on appeal that JNOV on the question of punitive damages should have been granted.

B. The trial court's reasons for reversing itself were erroneous.

The reasons the trial court provided for reversing itself only underscore the magnitude of the error. Far from disavowing the factual underpinnings of its tentative ruling, the trial court reaffirmed them. The court again recognized that "glyphosate has developed one of the largest bodies of scientific data of any substance in the world." (6 AA 6146.) And it again acknowledged that "[b]efore and after IARC's classification . . . , regulatory and public health agencies worldwide have reviewed and rejected claims about the carcinogenicity of [glyphosate-based herbicides]." (*Ibid.*)

Recognition of these same undisputed facts should have led to the same conclusion—that it is not "malicious" to agree with EPA. Instead, the trial court briefly cited (but did not explain) three factors purportedly justifying punitive damages. First, the trial court offered the generic observation that "[p]unitive damages have been upheld where a defendant has failed to conduct adequate testing on a product." (6 AA 6151, citing *West v. Johnson & Johnson Products, Inc.* (1985) 174 Cal.App.3d 831, 869 (*West*).) Second, the trial court made the equally generic point that punitive damages have been upheld where " 'there was

a "reasonable disagreement" among experts.' " (6 RT 6151.) And third, the trial court concluded that malice can be found for marketing a product with even a "*possible* link with NHL." (6 RT 6150, emphasis added.) None of these points withstand scrutiny. In any event, if a showing on any of these factors was sufficient to impose liability for punitive damages, punitive damages would be recoverable in every products liability case.

Purported Failure to Adequately Test. As an initial matter, the trial court's "failure to test" theory was based on a 1985 decision—*West*, *supra*, 174 Cal.App.3d 831—which predates the 1987 amendments to the statutory definition of malice. Under the amendments, but not the law when *West* was decided, malice requires " 'despicable conduct' " with a " 'willful' " and " 'conscious' " disregard of the rights and safety of others. (See *PG&E*, *supra*, 24 Cal.App.5th at p. 1161.) Even before those amendments, "mere negligence in investigation of the facts, in the sense of oversight or unintentional error, [was] not alone enough to constitute malice." (*Roemer v. Retail Credit Co.* (1970) 3 Cal.App.3d 368, 372.) After the 1987 amendments, it is especially clear that punitive damages cannot be based on a failure to "adequately" test a product, unless there is evidence that the defendant despicably refused to act in the face of *actual knowledge* of its product's dangers. (See, e.g., *PG&E*, at pp. 1172-1173; *Cruz v. HomeBase* (2000) 83 Cal.App.4th 160, 168 [information that "might have provided the occasion for further investigation, possibly leading to discovery of employee misconduct, is not enough" to warrant punitive damages]; *In re*

First Alliance Mortg. Co. (9th Cir. 2006) 471 F.3d 977, 999 [under California law, the fact a defendant "came upon red flags which were seemingly ignored" is not sufficient to warrant imposition of punitive damages].)

More fundamentally, the trial court did not explain how the record could support a "failure to adequately test" theory, much less one that demonstrates despicable conduct and conscious disregard. In *West*, evidence established that there had been numerous complaints that the defendant's tampons were causing infections, and had the defendant done adequate testing, it "would have revealed an association between tampon use and vaginal infection." (*West*, *supra*, 174 Cal.App.3d at p. 869.) This case could not be more different. There was plainly no shortage of testing for a substance that "has developed one of the largest bodies of scientific data of any substance in the world." (6 AA 6146.) And just as plainly, it is speculative (at best) to say that further testing "would have revealed an association" between glyphosate and cancer. (*West*, at p. 869.) After all, "regulatory and public health agencies worldwide have reviewed and rejected claims about the carcinogenicity of [glyphosate-based herbicides]." (6 AA 6146; see *ante*, pp. 19-21, 24-27.)

Moreover, the record is replete with examples of extensive testing done by Monsanto on its products, including studies on the surfactants used in the herbicides and animal toxicity studies. (5 AA 5551-5552, 5583-5586, 5704, 5710-5711, 5843, 5863, 5866; 22B RT 3962:21-23 [approximately 120 different studies are required to register a herbicide].) Plaintiff has

complained that Monsanto purportedly failed to conduct various mechanistic tests proposed by Dr. Parry to ensure that the interaction of the chemicals used in Monsanto's herbicides were safe. (See 6 AA 6070-6071.) But as the trial court acknowledged in its tentative ruling—and did not contradict in its final order—"[t]he record shows Monsanto ultimately conducted all but one of those tests and publicly released the results." (6 AA 6141; see also 5 AA 5842-5843, 5863-5864.) And after Monsanto performed those tests, Dr. Parry concluded that glyphosate is not genotoxic, and changed his opinion about the need for some of the studies he initially proposed. (5 AA 5865-5866.)

Reasonable Disagreement Among Experts. With just as little explanation, the trial court observed that punitive damages "have also been upheld where 'there was a "reasonable disagreement" among experts.' " (6 AA 6151, quoting *Buell-Wilson v. Ford Motor Co.* (2006) 141 Cal.App.4th 525, 559-560 (*Buell-Wilson*), vacated on other grounds in *Ford Motor Co. v. Buell-Wilson* (2007) 550 U.S. 931 [127 S.Ct. 2250, 167 L.Ed.2d 1087], and disapproved of on other grounds in *Kim v. Toyota Motor Corp.* (2018) 6 Cal.5th 21.) In *Buell-Wilson*, the Court of Appeal rejected the contention that a defendant could defeat punitive damages simply by finding its own expert to testify in support of its design decision. (*Buell-Wilson*, at p. 560 ["If such an assertion were true, punitive damages would never be allowed in cases where the defendant simply had an expert that disagreed with the plaintiff's expert"].) This case is the opposite: the overwhelming consensus of independent, expert regulators is

that exposure to glyphosate does not pose a carcinogenic risk to humans. (See *ante*, pp. 19-21, 24-27.) Here it is *Plaintiff*, not Defendant, who found an expert willing to take an outlier position, opining that an array of government agencies are wrong.

More generally, even if a defendant cannot escape punitive damages merely by proffering its own retained expert, when the evidence shows a serious scientific dispute, malice cannot be established simply because the defendant agrees with one side of the debate. (See, e.g., *Kendall Yacht Corp. v. United California Bank* (1975) 50 Cal.App.3d 949, 959 [reversing punitive damages award because it "remains purely speculative as to whether the [defendant] acted with such malice rather than out of a bona fide disagreement over" plaintiff's claims]; *Satcher v. Honda Motor Co.* (5th Cir. 1995) 52 F.3d 1311, 1316-1317 ["genuine dispute" over efficacy of motorcycle leg guards barred punitive damages as a matter of law]; *Berroyer v. Hertz* (3d Cir. 1982) 672 F.2d 334, 342 ["difference of medical opinion on the degree of the cancer risk" among experts is "insufficient support" for punitive damages]; *Mercer v. Pittway Corp.* (Iowa 2000) 616 N.W.2d 602, 618 [where there was reasonable disagreement among experts about adequacy of product design and testing, fact finder could not award punitive damages as a matter of law, even though it could reasonably find liability on the underlying tort claims]; see also *Loitz v. Remington Arms Co., Inc.* (Ill. 1990) 563 N.E.2d 397, 407; *Hillrichs v. Avco Corp.* (Iowa 1994) 514 N.W.2d 94, 100.) Whatever might be said of "reasonable disagreements" generally,

punitive damages cannot be proper when the overwhelming consensus among regulatory agencies around the world is on the same side of the "disagreement" as the defendant.

Mere "Possible" Link. Finally, the trial court concluded that "[t]he jury could find that the decision by Monsanto to continue marketing [glyphosate-based herbicides] notwithstanding a *possible* link with NHL constitutes corporate malice for purposes of punitive damages." (6 AA 6150-6151, emphasis added.) That defies the statutory definition of malice, which requires "willful and conscious disregard of the rights or safety of others." (Civ. Code, § 3294, subd. (c)(1).) Again, a finding of malice requires a showing that the defendant have " '*actual knowledge*' " (*PG&E*, 24 Cal.App.5th at p. 1159, emphasis added) of " '*probable* dangerous consequences' " (*Hoch*, *supra*, 24 Cal.App.4th at p. 61). It would radically change the law to affirm a punitive damages award based on the mere *possibility* of an association.

In sum, nothing in the trial court's order justifies punitive damages. The bottom line, which was the foundation of the trial court's tentative ruling and still acknowledged in the ultimate order, is that there is no evidence that Monsanto had actual knowledge that its glyphosate-based herbicides cause cancer. Nor could there be, when the scientific consensus, consistently accepted by EPA and other regulators around the world, contradicts that conclusion. It was not malicious for the regulators to reach this judgment, and it was not malicious for Monsanto to share their view of the science.

C. Plaintiff's additional arguments in support of punitive damages are meritless.

In opposing the posttrial motions, Plaintiff argued that Monsanto acted despicably because it purportedly prioritized profits over safety, polluted the scientific literature by allegedly ghostwriting articles, maliciously interacted with regulators, and did not return Plaintiff's phone call when he inquired about his cancer diagnosis. (6 AA 6069-6078.) None of these grounds was adopted by the trial court as a basis for upholding punitive damages, and rightly so. The vast majority of these arguments had nothing to do with Plaintiff's injury, and therefore cannot form the basis for punitive damages liability as a matter of law. (*State Farm Mut. Auto. Ins. Co. v. Campbell* (2003) 538 U.S. 408, 422-423 [123 S.Ct. 1513, 155 L.Ed.2d 585]; *Medo v. Superior Court* (1988) 205 Cal.App.3d 64, 68 ["Punitive damages are not simply recoverable in the abstract. They must be tied to oppression, fraud or malice *in the conduct which gave rise to liability in the case*."].)

More fundamentally, and once again, all of these purportedly despicable actions could give rise to a finding of malice only if Monsanto had *actual knowledge* that its herbicides caused cancer, and ignored that knowledge. (*PG&E, supra,* 24 Cal.App.5th at p. 1159; see *Hoch*, *supra*, 24 Cal.App.4th at p. 61.) Plaintiff cannot establish that Monsanto acted despicably simply because it advocated its firmly-held and well-supported belief that its products were safe—a view confirmed by the

overwhelming consensus of worldwide international agencies at the time plaintiff was exposed to Monsanto's products, and reaffirmed by numerous scientific and regulatory bodies even after the IARC Monograph was published. (See *ante*, pp. 19-21, 24-27.)

Indeed, Monsanto had a constitutional right to advocate its position to regulatory bodies. Under the *Noerr-Pennington* doctrine, which is derived from the First Amendment, civil liability may not rest on advocacy or lobbying efforts conducted before governmental bodies. (See *United Mine Workers of America v. Pennington* (1965) 381 U.S. 657, 670 [85 S.Ct. 1585, 14 L.Ed.2d 626]; *Ludwig v. Superior Court* (1995) 37 Cal.App.4th 8, 21 [" 'Those who petition the government are generally immune from . . . liability' "]; accord, Cal. Const., art. I, § 3, subd. (a) ["The people have the right to instruct their representatives, petition government for redress of grievances, and assemble freely to consult for the common good"].) The punitive damages award cannot rest on Monsanto's lawful and legitimate interactions with the EPA.

Even taking the individual allegations of purported despicable conduct at face value, they do not establish a basis for a finding of malice. As the trial court noted in its tentative ruling, the allegation that "Monsanto tried to 'pollute' the scientific literature by 'ghostwriting' articles" is belied by the fact that in both the Williams (2000) and Kier & Kirkland (2013) articles cited by Plaintiff, "Monsanto's employees are listed as contributors to those articles and there is no evidence those

articles contain material scientific misstatements." (6 AA 6141-6142.)

Finally, Plaintiff asserted that a doctor employed by Monsanto failed to return the phone call Plaintiff placed after he was diagnosed with cancer. (6 AA 6075-6076, 6077-6078.) Just like the fully disclosed involvement in articles that Plaintiff impugns as "ghostwriting," an unreturned phone call would be a remarkably thin reed on which to base punitive damages. The trial court correctly noted in her tentative ruling that "[e]ven if that assertion were true, not returning a phone call does not rise to the level of despicable conduct." (6 AA 6142.) In addition, the evidence is undisputed that the doctor believed that Monsanto's herbicides did not cause Plaintiff's illness and would have shared this view with Plaintiff had they spoken. (*Ibid.*; see 5 AA 5624.)

There is a simple reason why, in its final order denying JNOV, the trial court identified no facts demonstrating despicable conduct: there is no evidence of such conduct in the record. And there is certainly no such evidence capable of meeting the strict clear and convincing evidence standard. Accordingly, the award of punitive damages must be reversed.

VI. A new trial or remittitur is required because the jury's award of future noneconomic damages is excessive.

The sheer magnitude of the jury's verdict shows that something went deeply awry at this trial. The record reveals that

counsel for Plaintiff repeatedly made improper arguments, inflaming the passions of the jury and urging it to make findings contrary to both the evidence and the law. The result was a verdict beyond the bounds of proportion and reason, which demands a new trial or a remittitur.

A. The future noneconomic damages are not supported by the evidence of Plaintiff's life expectancy.

A jury may award future noneconomic damages only for pain and suffering that a plaintiff is reasonably certain to experience based on his "projected life span at the time of trial." (*Buell-Wilson*, *supra*, 141 Cal.App.4th at p. 550 & fn. 8; see also 29A RT 5049:21-25 [CACI No. 3905A: a plaintiff may recover future noneconomic damages that are "reasonably certain" to occur]; see also 2 Stein, Stein on Personal Injury Damages (3d ed. 2019) § 8:25 ["[D]amages for future pain and suffering are based upon plaintiff's probable life expectancy in his or her injured condition. . . . [C]ompensation for pain and suffering is recompense for pain and suffering actually experienced, and to the extent that premature death terminates the pain and suffering, compensation should be terminated." (Footnote omitted)].) An award is excessive if it "suggest[s] the jury was influenced by improper considerations." (*Bigler-Engler v. Breg, Inc.* (2017) 7 Cal.App.5th 276, 301 (*Bigler-Engler*).)

At closing argument, Plaintiff's counsel ignored these principles. He implored the jury to award $1 million per year for both past and future noneconomic damages, and asserted that

Plaintiff "will live between 2 more to 33 years." (29A RT 5110:11-15.) In so doing, Plaintiff's counsel urged the jury to disregard the evidence presented through his medical expert, Dr. Nabhan, that Plaintiff would not live past December 2019, or roughly one and a half years after trial. (17B RT 2886:20-2887:12; see also 17A RT 2794:21-22.) He then asked for $33 million in future noneconomic damages: "[I]f he lives for only two years, then *the remaining years that he doesn't get to live is also a million dollars*. [¶] *So it doesn't matter if he dies in two years or dies in 20*. . . . [*H*]*e deserves that money*." (29A RT 5110:16-20, emphasis added; see 29A RT 5124:11-13 [asking jury to award $33 million in future noneconomic damages based on Plaintiff's "potential life expectancy *over the years he won't live*" (emphasis added)].) And the jury awarded Plaintiff exactly what his lawyer requested: $33 million in future noneconomic damages. (5 AA 5502.)

Counsel's argument played on understandable sympathies, but it is inconsistent with the law. (See *ante*, p. 87.) The trial court appeared to recognize as much in its tentative ruling on the posttrial motions. The court posed two questions for the parties to address at argument: "Is the $33 million award for future non-economic damages based on Plaintiff's argument to award $1 million for each year of lost life expectancy? If so, is this award improper as a matter of law?" (6 AA 6143.) Yet the trial court declined to follow this line of inquiry to its inevitable conclusion.

Plaintiff argued below that the jury could have relied on testimony of Monsanto's medical expert, Dr. Kuzel, to award future noneconomic damages based on Plaintiff's pre-injury 33-

year life expectancy. (6 AA 6021.) Not so. Dr. Kuzel testified that patients with *early stage* MF may have a natural life expectancy, unlike patients who present with more extensive disease. (27A RT 4759:3-8, 4783:24-4784:3.) Here, it was undisputed that Plaintiff has more extensive disease. (17A RT 2806:13-2807:11; 17B RT 2882:23-2883:21, 2886:4-2887:3, 3007:14-20, 3050:10-13; 27A RT 4760:12-13; 27B RT 4853:4-19, 4854:4-5.) Dr. Kuzel also suggested that Plaintiff "could be cured of this disease and live his normal life expectancy." (27B RT 4854:6-10.) But even under this hypothetical (which Dr. Kuzel did not opine on to a reasonable degree of medical probability), the jury had no basis to award damages for pain and suffering occurring *after Plaintiff was cured*. (See *Bigler-Engler*, *supra*, 7 Cal.App.5th at p. 302 [$2.1 million award of future noneconomic damages was excessive where evidence showed that the plaintiff "was doing well physically and mentally" at time of trial].)

In sum, the court should reverse the award of future noneconomic damages because that award is not supported by the evidence of Plaintiff's projected life expectancy at the time of trial.

B. The jury's verdict on its face reveals passion and prejudice.

When the amount of a damages award is "so excessive as to raise a presumption that it was the result of passion or prejudice," "there is a duty upon the reviewing court to act." (*California Shoppers, Inc. v. Royal Globe Ins. Co.* (1985) 175

Cal.App.3d 1, 68.) Here, the $39 million compensatory damages award was so large it prompted the trial court to acknowledge that "there is a punitive element to the compensatory damages award." (6 AA 6153.) That recognition alone is tantamount to a decision that the jury was improperly inflamed, because "[t]he only permissible purpose for awarding compensatory damages is compensation, not punishment." (*California Shoppers*, at pp. 67-68.)

There are several indicia that the jury was not confining itself to compensation, but was instead inflamed by passion or prejudice to punish. First, of course, is the imposition of the massive $250 million punitive damages award itself, which the trial court recognized could not stand undisturbed. Second, the huge disparity between the jury's awards of future economic and noneconomic damages likewise reflected this improper impulse. "In determining whether the noneconomic damages award is excessive, we compare the amount of that award to the economic damages award, to see if there is a reasonable relationship between the two." (*Major v. Western Home Ins. Co.* (2009) 169 Cal.App.4th 1197, 1216; see also *Buell-Wilson*, *supra*, 141 Cal.App.4th at pp. 554-555 [remitting excessive noneconomic damages to amount "proportionate to the economic damages award"].) A modest single-digit ratio between noneconomic and economic damages is reasonable. (See *Buell-Wilson*, at p. 570; *Bihun v. AT&T Information Systems, Inc.* (1993) 13 Cal.App.4th 976, 996 & fn. 8, 997, disapproved of on other grounds in *Lakin v. Watkins Associated Industries* (1993) 6 Cal.4th 644.) Here, the

award of $33 million in future noneconomic damages is *more than 23 times greater* than the $1,433,327 award of future economic damages, a disparity that further demonstrates the excessiveness of the $33 million award. (See *Buell-Wilson*, at pp. 552-555 [reducing noneconomic damages from 14 to 4 times the economic damages].)

Passion and prejudice is also confirmed by comparing the amount the jury awarded in this case to the significantly lower amounts awarded in published appellate cases involving similar injuries. In evaluating excessiveness, "the appellate court should consider the amounts awarded in prior cases for similar injuries . . . ." (*Seffert v. Los Angeles Transit Lines* (1961) 56 Cal.2d 498, 508; see also *Maede v. Oakland High School Dist. of Alameda County* (1931) 212 Cal. 419, 425.) The *future* noneconomic damages awarded here alone are far greater than the *total* noneconomic damages that juries have awarded patients with mesothelioma, a painful and terminal cancer. A search of published appellate decisions since 2000 in mesothelioma cases filed in San Francisco Superior Court reveals total noneconomic damages awards of $500,000 (*Garza v. Asbestos Corp., Ltd.* (2008) 161 Cal.App.4th 651, 654), $750,000 (*Garcia v. Duro Dyne Corp.* (2007) 156 Cal.App.4th 92, 95), $1.79 million (*Taylor v. John Crane, Inc.* (2003) 113 Cal.App.4th 1063, 1066), $2 million (*Hackett v. John Crane, Inc.* (2002) 98 Cal.App.4th 1233, 1238), $3 million (*Wilson v. John Crane, Inc.* (2000) 81 Cal.App.4th 847, 851), and $4 million (*Cadlo v. Metalclad Insulation Corp.* (2007) 151 Cal.App.4th 1311, 1317). Plaintiff's award of *future*

noneconomic damages is more than eight times higher than the next highest award of *total* noneconomic damages ($4 million), and more than 16 times higher than the average of these awards ($2,006,667).[22]

It is thus apparent that most of the "future noneconomic damages" award was just more punitive damages in disguise—a point the trial court recognized. (6 AA 6153.) Such an award reflects passion and prejudice and requires a new trial.

C. The record confirms that the jury was inflamed by other improper arguments by counsel.

Although the sheer magnitude of the verdict is proof alone of passion and prejudice, the record here makes it clear that the passions of the jury were deliberately inflamed by counsel. At closing argument, Plaintiff's counsel implored the jury to "change[ ] the world" and become a "part of history" in returning

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[22] At trial, Plaintiff presented the following evidence of his injuries. He and his wife discussed the pain and embarrassment he felt from his illness. (18A RT 3182:3-14; 18B RT 3284:2-3287:12, 3289:12-3290:25, 3295:8-3296:25.) He complained of neuropathy (18B RT 3288:14-15) and was initially depressed (18A RT 3174:25-3175:14, 3179:14-17; 18B RT 3290:20-3291:13). He has had radiation and chemotherapy, which were painful. (18B RT 3285:21-3286:2, 3287:6-25, 3289:20-3290:4, 3294:10-12.) He lost weight (18B RT 3297:16-17) and he believes his memory was affected (18B RT 3204:11-19; see 18A RT 3178:9-16). He was frustrated that he could not work and provide for his family or engage in certain activities. (18A RT 3174:6-8, 3190:18-22, 3194:13-20; 18B RT 3288:6-14, 3291:25-3292:10.) Although these injuries are significant, they are not materially worse than injuries suffered by mesothelioma patients.

its verdict. (29A RT 5058:1-5.) Counsel also speculated that Monsanto executives were "waiting for the phone to ring" in a headquarters conference room, and "[b]ehind them is a bunch of champagne on ice." (29A RT 5117:2-7.) After the trial court sustained an objection to these comments, Plaintiff's counsel went on and urged the jury to "tell[ ] those people . . . they have to put the phone down, look at each other, and say, 'We have to change what we're doing' " because if the damages are "not significant enough, champagne corks will pop" and " 'Attaboys' " will be "everywhere." (29A RT 5117:8-19.) Other improper arguments further inflamed the passions of the jury. (See *ante*, pp. 72-73; 6 AA 5942-5948.)

D. The court should grant a new trial or order a remittitur.

Where, as here, an excessive award is likely the product of appeals to passion and prejudice, the court should grant a new trial on all issues. (See *Sabella v. Southern Pac. Co.* (1969) 70 Cal.2d 311, 316, fn. 2 [suggesting that "excessive damages resulting from passion or prejudice which might also affect the issue of liability cannot be cured by a remittitur"]; *Zhadan v. Downtown L.A. Motors* (1976) 66 Cal.App.3d 481, 502 [remanding case for new trial on all issues where "punitive damage award is excessive and appears to be the product of the jury's passion or prejudice"].)

Alternatively, the court should remit the award of future noneconomic damages to $1.5 million. Doing so would strip the

award of its punitive element, and would reflect counsel's request for $1 million per year applied to the 1.5 years that Plaintiff and his expert claim is his remaining life expectancy. (See *Bigler-Engler*, *supra*, 7 Cal.App.5th at pp. 305-306 [ordering remittitur]; *Buell-Wilson*, *supra*, 141 Cal.App.4th at pp. 548-549 [same].)

No punitive damages are available because there is no evidence in the record that Monsanto acted with malice or oppression, but at a minimum, the punitive damages should be reduced to the same amount of the remitted compensatory award, in light of the one-to-one ratio determined by the trial court to be the maximum constitutionally permissible ratio. (See 6 AA 6152-6153.) Likewise, if the court orders a new trial limited to noneconomic damages (total or future) and leaves intact the jury's finding of malice or oppression, the court should vacate the punitive damages award with directions to set those damages at the same amount as the compensatory damages awarded in any retrial.

VII. If the court reverses the judgment, the court should also vacate the cost award.

If the court reverses the judgment with directions or remands the case for a new trial, the court should also vacate the $519,772.18 award of costs because "the award of costs necessarily falls with the judgment." (*Harris v. Wachovia Mortgage, FSB* (2010) 185 Cal.App.4th 1018, 1027; see 6 AA 6181-6182.)

CONCLUSION

The court should reverse with directions to enter judgment for Monsanto because there is no substantial evidence to support any theory of liability or causation, and because all liability theories are preempted. Alternatively, the court should reverse and remand for a new trial on all issues because of the erroneous and prejudicial exclusion of evidence and the legally improper and excessive award of future noneconomic damages. If the court declines to order a new trial on excessiveness grounds, the court should reduce the future noneconomic damages to $1.5 million in light of the evidence presented at trial. Finally, the court should strike the punitive damages award because there is no evidence to support the jury's finding of malice or oppression.

April 23, 2019

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CERTIFICATE OF WORD COUNT
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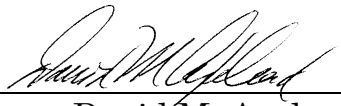
The text of this brief consists of 18,979 words as counted by the Microsoft Word version 2016 word processing program used to generate the brief.

Dated: April 23, 2019



David M. Axelrad

PROOF OF SERVICE

Johnson v. Monsanto Company
Case No. A155940 & A156706

STATE OF CALIFORNIA, COUNTY OF LOS ANGELES

At the time of service, I was over 18 years of age and not a party to this action. I am employed in the County of Los Angeles, State of California. My business address is 3601 West Olive Avenue, 8th Floor, Burbank, CA 91505-4681.

On April 24, 2019, I served true copies of the following document(s) described as **(1) APPELLANT'S OPENING BRIEF AND (2) APPELLANT'S APPENDIX VOLUMES 1 THROUGH 8, PAGES 1 - 8103** on the interested parties in this action as follows:

SEE ATTACHED SERVICE LIST

BY MAIL: I enclosed the document(s) in a sealed envelope or package addressed to the persons at the addresses listed in the Service List and placed the envelope for collection and mailing, following our ordinary business practices. I am readily familiar with Horvitz & Levy LLP's practice for collecting and processing correspondence for mailing. On the same day that correspondence is placed for collection and mailing, it is deposited in the ordinary course of business with the United States Postal Service, in a sealed envelope with postage fully prepaid.

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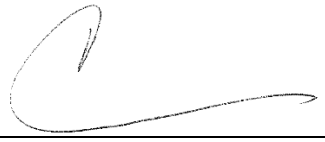
I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on April 24, 2019, at Burbank, California.



Connie Christopher

SERVICE LIST
Johnson v. Monsanto Company
Case No. A155940 & A156706

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