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SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF SAN FRANCISCO

Dewayne Johnson Plaintiff, vs. Monsanto Company Defendant	Case No. CGC-16-550128 **PLAINTIFF'S OPPOSITION TO MONSANTO COMPANY'S MOTION FOR JUDGMENT NOTWITHSTANDING THE VERDICT** Hon. Judge Suzanne R. Bolanos Hearing Date: October 10, 2018 Time: 2:00 p.m. Department: 504 Trial Date: June 18, 2018

TABLE OF CONTENTS

I. INTRODUCTION 1

II. LEGAL STANDARD FOR JUDGMENT NOTWITHSTANDING THE VERDICT 3

III. PLAINTIFF OFFERED SUFFICIENT EVIDENCE TO SUPPORT A FINDING THAT HIS EXPOSURE TO RANGER PRO AND ROUNDUP PRO CAUSED HIS NHL. 3

A. Epidemiology Supports The Conclusion That GBHs Cause NHL 5

B. The Animal Carcinogenicity and Genotoxicity Studies Support Causation 7

C. California Does Not Require a Relative Risk of 2.0 to Prove Causation 8

D. Dr. Nabhan Properly Performed a Differential Diagnosis and Determined That Mr. Johnson's Exposure to Ranger Pro and Roundup Pro Was a Substantial Contributing Factor to His Development of NHL 10

E. Plaintiff's Experts Properly Considered The IARC Monograph in Support of Their Causation Opinions 13

F. There is Sufficient Evidence That Mr. Johnson's Exposure to GBHs Caused His Cancer In 2.25 Years 14

G. Dr. Sawyer's Testimony Supports a Finding that the GBHs Were a Substantial Cause of Plaintiff's NHL 15

IV. PLAINTIFF'S EVIDENCE WAS SUFFICIENT TO SUPPORT THE JURY VERDICT ON THE DESIGN DEFECT CLAIM UNDER THE CONSUMER EXPECTATION TEST 16

V. PLAINTIFF PRESENTED SUFFICIENT EVIDENCE TO SUPPORT THE JURY'S VERDICT ON THE FAILURE TO WARN CLAIMS 19

A. Plaintiff Does Not Need To Introduce Expert Testimony on the Standard of Care of a Reasonable Manufacturer 20

B. There is Sufficient Evidence that Monsanto's Failure to Warn Caused Plaintiff's Injury 21

VI. PUNITIVE DAMAGES ARE APPROPRIATE WHERE, AS HERE, A MANUFACTURER FAILED TO WARN OR TAKE CORRECTIVE ACTION DESPITE KNOWLEDGE OF A DANGER OR SERIOUS INJURY 22

A. The Evidence Demonstrates that Monsanto Acted With a Conscious Disregard for Human Life 24

1. Monsanto's Scientists Protect Sales, They Do Not Evaluate the Safety of Glyphosate 24

2. Monsanto Refuses to Conduct Studies Recommended By Its Own Consultants 25

3. Monsanto's Engages in Unethical Ghostwriting to Influence Regulators and Mislead the Public Regarding the Safety Profile of GBHs 26

a. Monsanto Continues its Unethical Ghostwriting as it Proves a Winning Strategy 27

b. Monsanto's Ghostwriting Was Specifically Targeted to Combat Repeated Studies Showing that Glyphosate is Genotoxic 28

4. Monsanto Fails to Test Its Glyphosate Formulations Despite Knowledge that the Surfactants Were Hazardous and Capable of Promoting Tumors 29

5. Monsanto Devotes Enormous Resources to Attacking IARC's Conclusions Instead of Warning The Public of The Cancer Risk 30

6. Monsanto Works with EPA to Kill ATSDR Review of the Risks of Glyphosate. 31

B. Monsanto's Actions Were Despicable And Support an Award of Punitive Damages 32

C. There is Clear and Convincing Evidence That Managing Agents at Monsanto Acted With Malice and Oppression 33

VII. CONCLUSION 35

TABLE OF AUTHORITIES

Cases

Anderson v. Owens-Corning Fiberglas Corp. (1991) 53 Cal.3d 987 ..... 18, 20

Angie M. v. Superior Court (1995) 37 Cal.App.4th 1217 21

Arnold v. Dow Chem. Co., (2001) 91 Cal. App. 4th 698 18

Berroyer v. Hertz, 672 F.2d 334 (3d Cir. 1982) 23

Boeken v. Philip Morris Inc. (2005) 127 Cal.App.4th 1640 ..... 3, 21, 22, 24

Cooper v. Takeda Pharm. Am., Inc., (2015) 239 Cal. App. 4th 555 ..... 1, 5, 9, 11

Davis v. Honeywell Internat. Inc., (2016) 245 Cal. App. 4th 477 ..... 5, 8

Davis v. Kiewit Pacific Co. (2013) 220 Cal.App.4th 358 33

Egan v. Mutual of Omaha Ins. Co. (1979) 24 Cal.3d 809 33

Firestone Tire & Rubber Co. (1993) 6 Cal.4th 965 22

Grimshaw v. Ford Motor Co. (1981) 119 Cal.App.3d 757 22

Hale v. Farmers Ins. Exch., (1974) 42 Cal. App. 3d 681 32

Hauter v. Zogarts, (1975) 14 Cal. 3d 104 3

Hernandez v. Amcord, Inc., (2013) 215 Cal. App. 4th 659 5

In re Hanford Nuclear Reservation Litig., 292 F.3d 1124 (9th Cir. 2002) 9

In re Johnson & Johnson Talcum Powder Cases, No. BC628228, 2017 WL 4780572, at *14 (Cal. Super. Ct. 2017) 9

In re Roundup Prod. Liab. Litig., No. 16-MD-02741-VC, 2018 WL 3368534, at *33, *36 (N.D. Cal. July 10, 2018) 4

Johnson & Johnson v. Superior Court (2011) 192 Cal.App.4th 757 22

Johnson v. Ford Motor Co. (2005) 35 Cal.4th 1191 22

Karlsson v. Ford Motor Co. (2006) 140 Cal.App.4th 1202 22

Kendall Yacht Corp. v. United California Bank, (1975) 50 Cal. App. 3d 949 23

Knight v. Contracting Engineers Co. (1961) 194 Cal.App.2d 435 3

Major v. Western Home Ins. Co. (2009) 169 Cal.App.4th 1197 21

Ortega v. Kmart Corp., (2001) 26 Cal. 4th 1200 5

Pfeifer v. John Crane, Inc. (2013) 220 Cal.App.4th 1270 ..... 21, 22

Quintal v. Laurel Grove Hospital, (1964) 62 Cal.2d 154 3
Ramirez v. Plough, Inc (1993) 6 Cal.4th 539 20
Roberti v. Andy's Termite & Pest Control, Inc., (2003) 113 Cal. App. 4th 893 ..... 5, 7
Romo v. Ford Motor Co. (2003) 113 Cal.App.4th 738 22
Ruff v. Ensign-Bickford Indus., Inc., 168 F. Supp. 2d 1271, 1281 (D. Utah 2001) 7
Saller v. Crown Cork & Seal Co., (2010) 187 Cal. App. 4th 1220 15
Satcher v. Honda Motor Co.52 F.3d 1311 (5th Cir. 1995) 23
Scott v. C.R. Bard, Inc. (2014) 231 Cal.App.4th 763 20
Scott v. Ford Motor Company (2014) 224 Cal.App.4th 1492 22
Simmons v. Ware, (2013) 213 Cal. App. 4th 1035 3
Stephen v. Ford Motor Co., (2005) 134 Cal. App. 4th 1363 20
Teitel v. First L.A. Bank, (1991) 231 Cal. App. 3d 1593 3
Trejo v. Johnson & Johnson, (2017) 13 Cal. App. 5th 110 17
Waller v. Southern California Gas Co., (1959) 170 Cal. App. 2d 747 3
Wendell v. GlaxoSmithKline, 858 F. 3d 1227 (9th Cir. 2017) 11, 12
West v. Johnson & Johnson Products, Inc. (1985) 174 Cal.App.3d 831 23
White v. Ultramar, Inc. (1999) 21 Cal.4th 563 33

Statutes

Cal. Civ. Proc. Code § 425.16 32
Civil Code section 3294 22

Other Authorities

CACI 430 4
CACI 431 9
Federal Judicial Center's Reference Manual on Scientific Evidence (3rd. Ed.) 1, 13

I. INTRODUCTION

There is no dispute that the jury in this trial was "excellent." It was a jury that was able to "put sympathy aside" and "decide the case fairly" by applying the evidence to the law as instructed by the Court.[1] After doing so, the jury decided unanimously that there was sufficient evidence to find for Plaintiff on each element of every single cause of action.

The unanimous decision from the well-educated, attentive jury was not unreasonable. Indeed, this Court repeatedly held that, based on Plaintiff's evidence as proffered at summary judgment and trial, a reasonable jury could find for Plaintiff on each cause of action. At trial, Mr. Johnson produced the same expert testimony that Judge Karnow considered in rejecting Monsanto's Sargon Motions and substantially more evidence with respect to liability and punitive damages than that considered at the summary judgment stage. Monsanto's current motion is simply a rehash of its failed arguments infused with gross misrepresentations of the record. Accordingly, Monsanto's motion for judgment notwithstanding the verdict (JNOV) should likewise be denied.

With respect to causation, Monsanto's motion inappropriately attacks the *admissibility* of Plaintiff's experts and not whether their actual opinions are sufficient to support a jury verdict. There is no dispute that Plaintiff's experts are eminently qualified to offer causation opinions and did in fact opine that glyphosate-based herbicides, including Ranger Pro and Roundup Pro (hereinafter "GBHs") can cause non-Hodgkin Lymphoma (NHL) generally and did cause Mr. Johnson's NHL. 5/17/2018 Order re: Sargon and Summary Judgment, (SJ Order) at 7. ("credentials of the expert[s] are unassailable").

It is essential that the "body of studies be considered as a whole." *Cooper v. Takeda Pharm. Am., Inc.*, (2015) 239 Cal. App. 4th 555, 589–90. Unlike Monsanto's witnesses, Plaintiff's experts considered the totality of the scientific data in reaching their opinions that GBHs cause NHL as required by California law. In addition to the epidemiology, there is strong biological plausibility of causation. Under such circumstances, the Federal Judicial Center's Reference Manual on Scientific Evidence (3rd. Ed.) (Reference Manual) instructs:

> … In applying the scientific method, scientists do not review each scientific study individually for whether by itself it reliably supports the causal claim being advocated or opposed. Rather, as the Institute of Medicine and

[1] See Tr. 5222:7-21 (Monsanto's closing statement).

> National Research Council noted, "summing, or synthesizing, data addressing different linkages [between kinds of data] forms a more complete causal evidence model and can provide the biological plausibility needed to establish the association" being advocated or opposed.

at 20.

Additionally, the evidence presented at trial is more than sufficient to support an inference that Mr. Johnson's NHL was caused by his exposure to GBHs. Mr. Johnson was diagnosed with NHL after more than two years of spraying dangerously high levels of GBHs. Mr. Johnson's use of a hydraulic nozzle created "a dangerous aerosol" causing his face and clothing to be soaked with the carcinogenic formulation. Tr. at 3694:20-22. This substantial exposure was not Mr. Johnson's fault. Tr. at 3695:2 (Mr. Lombardi stating "I'm not blaming Mr. Johnson"). Defendant agrees that Mr. Johnson "went well beyond what the label requires" in trying to minimize his exposure. Tr. at 1502:15-16. As a safety conscious employee, Mr. Johnson relied on the product label and safety data sheets as provided by Monsanto. Tr. at 3230:14-16. Unfortunately, Monsanto not only failed to warn about the risk of NHL, but was grossly inadequate in instructing users about how to minimize exposure to its product. Unfortunately, Mr. Johnson "didn't know any better" because Monsanto never bothered to tell him. *Id.* at 3695:1.

Plaintiff's expert Dr. Chadi Nabhan considered this evidence of Mr. Johnson's exposure and properly conducted a "differential diagnosis" to "rule in" and "rule out" other possible causes of NHL. After considering all of the evidence, Dr. Nabhan and Dr. William Sawyer were able to conclude that GBHs were a substantial cause of Mr. Johnson's NHL.

Mr. Johnson testified, without equivocation, that had Monsanto informed him that GBH's cause cancer, he would not have sprayed the product. Mr. Johnson stated "It's just unethical. It's not what you would do. It's wrong. I have children that go to school, and I've been in schools, and people just don't deserve that. They deserve better." Tr. at 3235:2-5. Mr. Johnson twice called Monsanto asking if the Ranger Pro was causing his cancer and Monsanto never called him back. P-Exhs. 332, 334. Fearing that Ranger Pro might be a cause of Mr. Johnson's NHL, Mr. Johnson's treater, Dr. Ofodile, wrote a letter in March 2015, to the school board asking that Mr. Johnson not be required to spray Ranger Pro at work. *Id.* at 3154:6-16. That letter did not have the desired effect and in 2016, Mr. Johnson ultimately had to simply refuse to continue spraying. *Id.* at 3236:4-13.

Finally, punitive damages are appropriate in this case. In California, it has been held that intentionally marketing a defective product knowing that it might cause injury and death is "highly reprehensible." *Boeken v. Philip Morris*, Inc., (2005) 127 Cal. App. 4th 1640, 1690. Mr. Johnson's story is tragic and could have been prevented if Monsanto actually showed a modicum of care about human safety. The evidence supports the conclusion that "Monsanto has long been aware of the risk that its GBHs are carcinogenic, and more dangerous than glyphosate in isolation, but has continuously sought to influence the scientific literature to prevent its internal concerns from reaching the public sphere and to bolster its defenses in products liability actions." SJ Order at 45.

II. LEGAL STANDARD FOR JUDGMENT NOTWITHSTANDING THE VERDICT

The "trial court's discretion in granting a motion for judgment notwithstanding the verdict is severely limited." *Teitel v. First L.A. Bank*, (1991) 231 Cal. App. 3d 1593. The trial judge must not invade the province of the jury and reweigh the evidence. *Quintal v. Laurel Grove Hospital,* (1964) 62 Cal.2d 154, 159; *Simmons v. Ware*, (2013) 213 Cal. App. 4th 1035, 1047. Neither should the trial judge disturb the jury's determination on the credibility of witnesses. *Knight v. Contracting Engineers Co.* (1961) 194 Cal.App.2d 435; *Simmons,* (2013) 213 Cal. App. 4th at 1047. On considering a motion for JNOV, "[i]f the evidence is conflicting or if several reasonable inferences may be drawn, the motion for judgment notwithstanding the verdict should be denied." *Hauter v. Zogarts*, (1975) 14 Cal. 3d 104, 110

When considering a motion for JNOV the Court, "must take the record as we find it. We cannot strike or disregard any evidence favorable to the prevailing party merely because it was erroneously received." *Waller v. Southern California Gas Co.,* (1959) 170 Cal. App. 2d 747.emphasis added). *See also Nonrefillable Bottle Co. v. Robertson* (1908) 8 Cal.App. 103, 104; *O'Connor v. Hooper*, (1894) 102 Cal. 528, 529; *Wright v. Roseberry,* (1889) 81 Cal. 87, 91; *Gregg v. Western Pac. R.R. Co.*, (1924) 193 Cal. 212, 216; *Estate of Callahan*, (1967) 67 Cal. 2d 609.

III. PLAINTIFF OFFERED SUFFICIENT EVIDENCE TO SUPPORT A FINDING THAT HIS EXPOSURE TO RANGER PRO AND ROUNDUP PRO CAUSED HIS NHL.

This Court has already rejected each argument offered by Monsanto with respect to causation. Indeed, the issues raised by Monsanto are all foundational issues with respect to the admissibility of the experts' opinions and should not be raised in the context of challenging the sufficiency of the evidence.

Once the expert opinion is deemed admissible and presented to the jury, the jury determines the credibility of the expert opinion and not the basis for its admissibility. Here, four highly-qualified experts offered admissible opinions that GBHs cause NHL, and two of those experts specifically looked at Mr. Johnson's case and determined that his exposure to GBHs caused his NHL.

The opinions of Plaintiff's experts are more than sufficient to support a finding of general and specific causation. See SJ Order at 38 (holding "most of the opinions of Johnson's causation experts are admissible. These suffice as evidence of both general and specific causation."). Monsanto goes to great lengths to avoid citing California law, Judge Karnow's order, or this Court's orders denying their previous motions based on the same arguments. Instead, defendant misleadingly cites Judge Chabbria's opinion[2], applying federal law, by omitting the conclusion that "the plaintiffs have presented evidence from which a reasonable jury could conclude that glyphosate can cause NHL at human-relevant doses. Monsanto's motion for summary judgment is denied." *In re Roundup Prod. Liab. Litig*., No. 16-MD-02741-VC, 2018 WL 3368534, at *33, *36 (N.D. Cal. July 10, 2018).

To meet their burden on cancer causation, "[t]he plaintiff must offer an expert opinion that contains a reasoned explanation illuminating why the facts have convinced the expert…that it is more probable than not the negligent act was a cause-in-fact of the plaintiff's injury." *Cooper*, 239 Cal. App. 4th at 578. Furthermore "[u]nder the applicable substantial factor test, it is not necessary for a plaintiff to establish the negligence of the defendant as the proximate cause of injury with absolute certainty so as to exclude every other possible cause of a plaintiff's illness, even if the expert's opinion was reached by performance of a differential diagnosis." *Id.* at 578.

Under California law, causation is not segregated into concepts of "general" and "specific" causation, as Monsanto suggests. Rather, the only causation element that a plaintiff must show is that the defendant's conduct or product was a "substantial factor" in causing the plaintiff's harm. See CACI 430 ("A substantial factor in causing harm is a factor that a reasonable person would consider to have contributed to the harm. It must be more than a remote or trivial factor. It does not have to be the only

[2] Judge Chhabria's ruling under federal law is of limited relevance to this case which requires the application of California law. This is particularly true where Judge Karnow considered the same arguments of Monsanto and the same testimony of the experts. Plaintiff does not agree with several aspects of Judge Chhabria's ruling particularly where it deviates from Judge Karnow's opinion.

cause of the harm."). The substantial factor standard "is a relatively broad one, requiring only that the contribution to the individual cause be more than negligible or theoretical." *Hernandez v. Amcord, Inc.*, (2013) 215 Cal. App. 4th 659, 673. Causation involves "factual questions for the jury to decide, except in cases in which the facts as to causation are undisputed." *Ortega v. Kmart Corp.*, (2001) 26 Cal. 4th 1200, 1205.

Monsanto's arguments relating to causation are premised entirely on misrepresentations, an utter disregard of the opinions of Plaintiff's experts, and the misapplication of the JNOV standard. Plaintiff's evidence is more than sufficient to establish that his NHL was caused by his exposure to GBHs.

A. Epidemiology Supports The Conclusion That GBHs Cause NHL.

In finding that "Johnson's epidemiology experts should not be excluded" this Court already rejected Monsanto's arguments attacking the epidemiological studies. SJ Order at 12. Judge Karnow correctly applied California law which holds that it "is generally correct that in many (or even most) instances epidemiological studies provide the best evidence of causation." *Davis v. Honeywell Internat. Inc.*, (2016) 245 Cal. App. 4th 477, 491. However, it is also proper for experts to rely on "other tools to determine causation" in cases of rare cancer. *Id.; Roberti v. Andy's Termite & Pest Control, Inc.*, (2003) 113 Cal. App. 4th 893, 901 (opinion admissible where expert relied upon animal studies with pesticide and examination of plaintiff). Where the "validity of these studies, and both their strengths and their weaknesses, are subject to considerable scientific interpretation and debate" it is not the court's role to resolve these debates. *Cooper*, 239 Cal. App. 4th at 589–90.

Defendant claims that epidemiology alone must be sufficient to establish causation and that experts cannot rely on toxicological data. There is simply no basis for this claim. In fact, it would be entirely improper to view the epidemiological evidence in isolation. When asked whether it would be scientifically appropriate to just look at the epidemiology and ignore the animal studies and the mechanistic data, Dr. Portier explained that: "[u]nder no condition would it be… it's never good to look at just one set of data" and that its "common practice… it's good practice" to look at all the data. Tr. at 1965:11-1966:7. Dr. Neugut concurs. *Id*. at 2736:25-2737:17.

Nonetheless, Dr. Portier concluded, based on epidemiology alone, that that "there's a demonstrated association" and that "causality is reasonable here." Tr. at 1964:1-17. However, when

all of the data was considered, including animal studies, genotoxicity studies, and mechanistic data, Dr. Portier firmly concluded that "glyphosate is carcinogenic, causing NHL in humans." *Id*. at 1994:19-21. Dr. Neugut agrees, stating that after applying the Bradford-Hill criteria and factoring in all of the evidence that "there is indeed a causal association between glyphosate and NHL." *Id*. at 2646:16-23. In summarizing the epidemiology, Dr. Neugut explains:

> And if you look, all of them are above 1. All of them. That's a phenomenon referred to in causal epidemiology as consistency. They're consistently elevated above 1. Whatever flaws, problems, issues we're all going to raise about these studies, one or the other, no studies are perfect, whatever things each study does, no study is identical. . .But all of them are consistently above 1, and that's none random.

Id. at 2612:3-18. Plaintiff's experts also considered the strengths and the weaknesses of the epidemiological studies including the risk of confounders. As Judge Karnow noted,

> Johnson's experts appreciated the risk the confounders could create an unreliable association between glyphosate exposure and NHL but believed, in light of the studies they reviewed and the other information that they considered, that potential confounders were not the cause of the association. And Monsanto has not identified any pesticides that may, in fact, have confounded the data.

SJ Order at 12-13 (internal citations omitted). Dr. Neugut further explained at trial that most errors in epidemiology studies push the relative risk down closer to one meaning that the relative risks reported in the studies are actually underestimates of the true relative risk. Tr. at 2584:21-2589:14. Dr. Neugut also explained that these errors pushing down the true relative risk are much more of a concern than any potential confounding. *Id.; see also* Tr. at 1965:3-5 (Portier) ("And whereas most of them did a pretty good job with cofounders, some maybe didn't, but I don't think confounders are a big problem in this set of data.");

As required, Plaintiff's experts thoroughly considered the Agricultural Health Study ("AHS") in reaching their conclusions about epidemiology and causation. *See* SJ Order at 13. Dr. Neugut persuasively explained why exposure misclassification, loss to follow-up and the exponential increase in GBHs during the enrollment period made the results of the AHS study (with respect to GBHs) unreliable. Tr. at 2618:18-2626:13, 2635:8-2640:18; *id*. at 1954:3-1959:17 (Portier) ("very serious

flaws associated" with the AHS study). As noted by this Court, "The absence of dose response in AHS does not foreclose the existence of other data supporting· a positive dose response finding." SJ Order at 22.

Finally, the North American Pooled Project (NAPP) study actually supports Plaintiff's experts.[3] The authors of the NAPP, which Monsanto claims does not support IARC, say the exact opposite:

> Our results are also aligned with findings from epidemiological studies of our populations that found an elevated risk of NHL for glyphosate exposure and with a greater number of days per year of glyphosate use. As well as a meta-analysis of glyphosate use and NHL risk. From an epidemiological perspective our results were supportive of the IARC evaluation of glyphosate as a probable Group 2A carcinogen for NHL.

Id. at 4415:10-18. The NAPP study authors reported that the risk of NHL for people who use glyphosate greater than two days per year doubled after adjusting for other pesticides and proxy respondents. 4410:22 -4411:14.

B. The Animal Carcinogenicity and Genotoxicity Studies Support Causation.

Plaintiff's experts' properly relied on animal studies, genotoxicity studies and mechanistic data in reaching their opinions that GBHs cause cancer. This Court allowed Dr. Portier's opinions on animal studies because "he concludes the fact that, according to his analysis, glyphosate causes cancer in mammals (i.e., rodents) renders it biologically plausible, under the Bradford Hill rubric, that glyphosate could cause a specific form of cancer, NHL, in humans." *Id.* at 15; *Roberti*, 113 Cal. App. 4th at 901 (opinion admissible where expert relied upon animal studies); *Ruff v. Ensign-Bickford Indus., Inc*., 168 F. Supp. 2d 1271, 1281 (D. Utah 2001); Tr. at 2002:10-2003:10 (Portier explaining that mechanistic and animal studies support positive epidemiological findings); Tr. at 2445:6-15 (Neugut explaining that toxicology studies in animals are applicable to biological plausibility in Bradford-Hill analysis).

It is entirely misleading to suggest that animal studies are not relevant to humans because they use a higher dose. Dr. Portier explained the reason why high doses are appropriate in animal studies:

> [t]he reason you do that is because -- what you're interested in, of course, in human populations is much lower exposures. But you're also interested in human risk in the range of 1 in a million to 1 in 100,000 to 1 in 10,000. And we can't use that many animals to get at that type of risk. And so you don't

[3] Using good scientific principles, Plaintiff's experts did not rely on NAPP as it consisted of non-peer-reviewed data even though this evidence supported their opinions.

> do studies at human exposure levels. You extrapolate them. You take what you see in high doses, and you draw a line or some other technique to get you into the low region.[4] That's how you estimate human risk.

Tr. at 1806:22-1807:7.

Here, the animal and mechanistic studies strongly support causation with respect to the biological plausibility and coherence among the different lines of evidence. Dr. Portier explained that the fact you see lymphomas in every mouse study lends strong support for causality in humans. *Id*. at 1834:18-1837:14. Evidence that: (1) GBHs are genotoxic in blood cells and lymphocytes of humans who are sprayed with GBHs (Tr. at 1973:16-1979:22); (2) glyphosate and GBHs have been shown to cause oxidative stress which can operate to promote tumors; (Tr. at 1990:10-1992); and (3) GBHs have been shown to promote skin tumors in mice. (Tr. at 1857:22-1860:13) also lends support for a causation opinion.

Finally, the jury was certainly entitled to find that IARC's interpretation of the animal data was far superior to that of the regulatory agencies. Dr. Portier thoroughly explained how the EPA and EFSA failed to follow established guidelines in evaluating this data and was joined by 94 other scientists in a published commentary supporting IARC's conclusions. Tr. at 2010:16-2021:2. As Dr. Ross from IARC testified: "The mechanistic evidence that was deemed strong was the genotoxicity and the oxidative stress classification . . . .. The important thing, in terms of operable in humans, is the fact that exposed humans showed evidence of genotoxicity, and cultured cells of human origin showed evidence of genotoxicity. Those were -- those then showed that this mechanism may operate in humans." Ross Dep., 104:7-105:10.

C. California Does Not Require a Relative Risk of 2.0 to Prove Causation.

Defendants claim "none of the studies show a statistically significant risk ratio that is above 2.0

[4] Dr. Portier is referencing the Cancer Slope Factor, which Dr. Sawyer did calculate and came to the conclusion that Johnson's exposure levels were with the range of the exposure levels causing cancer in animals. In exchange for not referencing the Cancer Slope Factor at trial, the parties agreed not to "reference, argue or offer testimony that Mr. Johnson's dose/exposure is below or above any threshold reference dose derived from animal studies." July 24, 2018 Email from Sandra Edwards to Department 504. Defendant's argument that "the level of exposure to glyphosate in the real world is 'very low' is actually about even more than 10 million times lower than the quantities that in one day we had to use in animals in order . . . to assess possible carcinogenicity" violates this agreement. Dr. Sawyer would have refuted the defendant's claims by opining that the Cancer Slope Factor demonstrates that the mouse studies, particularly the lymphoma findings, are relevant to Mr. Johnson's exposure levels. (Sawyer Report) Plt.Ex 750 at 145-152.

as required by California law." This is not true, as several studies show statistically significant doubling of the risk with respect to glyphosate and NHL. Furthermore, as this Court has already explained, California law clearly does not require a risk ratio above 2.0, holding "Johnson's experts discuss epidemiological studies just as one factor in their opinion that glyphosate-based herbicides cause NHL…*Cooper* does not mandate exclusion of these opinions for this purpose even if none of the studies shows a relative risk of greater than 2.0." SJ Order at 10. Judge Karnow appropriately applied controlling law which holds that "[t]here is no such requirement [for a relative risk of 2.0] in California." *Davis v. Honeywell Internat. Inc.,* (2016) 245 Cal. App. 4th 477, 493.[5]

In *Cooper v. Takeda Pharm. Am., Inc.,* (2015) 239 Cal. App. 4th 555, the issue was not whether epidemiology studies showing a doubling of the risk were required to prove specific causation, but rather whether those studies could be used to prove specific causation in the absence of a thorough differential diagnosis; a plausible mechanism of action; and animal carcinogenicity studies.[6] The Court determined that a study reporting an odds ratio of 2.0 could be used as evidence of specific causation in the absence of other evidence. *Id.* at 593. The epidemiology in *Cooper* involved a pharmaceutical drug Actos® where there were randomized control trials, and there were no issues with respect to exposure assessment. The study investigators could count the actual number of pills each participant was prescribed. The overall odds ratio was about 1.5 in the meta-analysis of ever-never use in *Cooper*, but the Court held that studies which looked at dose-response and found a greater than 2.0 odds ratio in the dose group to which the Plaintiff belonged were admissible for specific causation. *Id.* at 594.

Defendant cites a Los Angeles Superior Court opinion as authority in violation of California citation rules and that cite should be stricken. *See* Cal. Rules of Court, 8.1115. To the extent the court considers the Talcum Powder case which is currently on appeal, the basis of the ruling was that "[t]he undisputed evidence was ***that epidemiology was the only basis*** that [Plaintiff's expert] could and did "rule in" talc as a disease agent." *In re Johnson & Johnson Talcum Powder Cases*, No. BC628228,

[5] Judge Chhabria also rejected Defendant's arguments holding "Monsanto argues that the plaintiffs must be able to show a statistically significant odds ratio of greater than 2.0 to survive summary judgment at the general causation stage. Controlling case law does not support that proposition." *In re Roundup Prod. Liab. Litig.*, No. 16-MD-02741-VC, 2018 WL 3368534, at *20 (N.D. Cal. July 10, 2018).

[6] The Miller Firm was also lead counsel in the *Cooper v. Takeda* appeal.

2017 WL 4780572, at *14 (Cal. Super. Ct. 2017) (italics added and bolded)[7]. Here, in contrast, Mr. Johnson relies also on strong animal carcinogenicity data, exposure data, and mechanism of action data. Epidemiology is only one part of the causation analysis.

A relative risk of 2.0 is only necessary when epidemiology is being offered as the ***only evidence*** used for specific causation in the absence of toxicological evidence of carcinogenicity. *Cooper,* 239 Cal. App. 4th 555, 593 ("So the question is what, in addition to these studies, is Dr. Smith basing his differential diagnosis on."); *In re Hanford Nuclear Reservation Litig.,* 292 F.3d 1124, 1136 (9th Cir. 2002) (Relative risk of 2.0 only applicable where "there was no scientific evidence of capacity to cause the plaintiffs' injuries.).

In any event, there are several studies showing an odds ratio over 2.0, including De Roos (2003). While Dr. Neugut testified that the odds ratio for ever using GBHs from all of the studies combined was about 1.5, he further explained that "if you start to look at dose response of people who are really significantly exposed to glyphosate, got exposed in a more dramatic way, for longer periods of time, for higher doses, they're going to have a significantly higher risk." Tr. at 2617:21-2618-4, 2644:21-2645:1. Dr. Nabhan also reached the same conclusion after his review of the epidemiological studies. *Id*. at 2825:9-18; *Id.* at 2827:15-2830:5 (explaining that Eriksson and McDuffie showed a dose-response); *id*. at 1880:3-1884:24, 1894:13-1898:3 (Dr. Portier explaining the dose-response relationship in McDuffie and Eriksson showed over a doubling of the risk for use greater than 2 days per year (McDuffie) and 10 days per year (Eriksson).

D. Dr. Nabhan Properly Performed a Differential Diagnosis and Determined That Mr. Johnson's Exposure to Ranger Pro and Roundup Pro Was a Substantial Contributing Factor to His Development of NHL.

Dr. Nabhan conducted a proper differential diagnosis. SJ Order at 25. Dr. Nabhan is a board-certified oncologist specializing in the diagnosis and treatment of NHL. Tr. at 2773:10-21; 2776:22-24; 2779:6-12. He has authored over 300 journal articles, abstracts and book chapters relating to cancer

[7] To the extent the Court relies on this unpublished opinion, Plaintiff would point out that this case also stated that if a defendant points to unknown causes as the cause of Plaintiff's cancer then the Court is required to give the CACI 431 concurrent causes instruction. *Id.* at * 21. ("Nonetheless, given defendants' arguments that alternate unknown causes were possible causes of Echeverria's cancer, the Court is bound by Cooper and denies the motion on the basis of improper instruction…")

with the substantial majority dealing with NHL. *Id*. at 2785:13-2786:4. Dr. Nabhan testified that mycosis fungoides is simply a form of NHL. *Id*. at 2780:7-17. As such, it is appropriate to rely upon scientific literature related to NHL generally in reaching causation opinions. Dr. Nabhan explained that NHL is a "large umbrella" and due to the changing nature of classifications and the difficulty in specifically testing each particular subtype, physicians must apply causation evidence to every subtype including mycosis fungoides. *Id*. at 2900.

In reaching his specific causation opinions in this case, Dr. Nabhan reviewed epidemiology, animal studies, toxicology studies, thousands of pages of Mr. Johnson's medical records, correspondence from Mr. Johnson's employer, and relevant deposition transcripts. *Id*. at 2789-2795. Dr. Nabhan also personally met and examined Mr. Johnson. Dr. Nabhan considered the amount and duration of exposure as well as the number of reported times that the GBHs would have contacted his skin. *Id*. at 2831, 2834-2836.

Next, Dr. Nabhan employed a differential diagnosis in which he considered every possible or plausible cause of Mr. Johnson's NHL. *Id*. at 2841-2842. He considered the known risk factors and causes of NHL including age, race, immunosuppressant therapies, autoimmune diseases, skin conditions, occupation, occupational exposures and viruses. *Id*. at 2842-2852. Dr. Nabhan explained that sun exposure, tobacco, and alcohol are not known causes of NHL and could therefore be excluded. *Id*. at 2852-2853. After properly conducting a differential diagnosis, Dr. Nabhan concluded that Mr. Johnson's only known risk factors were his race (African American) and Roundup exposure. Dr. Nabhan therefore concluded that Roundup was the most substantial contributing factor to Mr. Johnson's NHL. *Id*. at 2853:24-2854:2.

Despite Monsanto's argument to the contrary, Dr. Nabhan did consider whether Mr. Johnson's NHL was idiopathic. Dr. Nabhan testified that because Mr. Johnson was far younger than the typical mycosis fungoides patient this would constitute a "red flag" suggesting to him that there was something behind the NHL. *Id*. at 2843:2-2844:19. In other words, Mr. Johnson's cancer was not idiopathic. *Id*. at 2997. Dr. Nabhan is "very certain" that if Mr. Johnson had not been exposed to Roundup he would not have developed mycosis fungoides. *Id*. at 2849:9-21.

Furthermore, under the applicable substantial factor test, "it is not necessary for a plaintiff to

establish the negligence of the defendant as the proximate cause of injury with absolute certainty *so as to exclude every other possible cause of a plaintiff's illness,* even if the expert's opinion was reached by performance of a differential diagnosis." *Cooper,* 239 Cal. App. 4th at 578. In reaching a specific causation opinion, clearly a medical expert "need not exclude all other possibilities before he or she can express an opinion that the defendant's conduct or product caused the plaintiff's harm." *Cooper,* 239 Cal. App. 4th at 580. It is defendant's burden to proffer "the existence of an alternative explanation, supported by substantial evidence and not mere speculation..." to defeat Plaintiff's claims as a matter of law. *Id.* Judge Karnow agreed that Dr. Nabhan was not required to rule out every other possible cause to render a causation opinion. SJ Order at 25.

Under *Wendell v. GlaxoSmithKline,* 858 F. 3d 1227 (9th Cir. 2017), it is not even necessary for an expert to "rely on animal or epidemiological studies" for a differential diagnosis to be "found reliable and admissible" particularly in case of rare cancers where it would be difficult to conduct studies powerful enough to create statistically significant results. *Id.* 858 F.3d at 1235. In conducting a differential diagnosis one "[a]ssumes the pertinence of all potential causes, then rules out the ones as to which there is no plausible evidence of causation, and then determines the most likely cause among those that cannot be excluded." *Id. Wendell* concluded that "[w]ere, as here, two doctors who stand at or near the top of their field and have extensive clinical experience with the rare disease or class of disease at issue, are prepared to give expert opinions supporting causation, we conclude that *Daubert* poses no bar based on their principles and methodology." *Id.*

Defendant's argument that because Dr. Nabhan can't identify the cause of NHL in most of his patients then he shouldn't be able to identify the cause of NHL in Mr. Johnson has been squarely rejected in California. In *Cooper,* it was an abuse of discretion for the trial court to exclude expert testimony on the basis that "[plaintiff's expert] says that he has a lot of patients in this age group who have bladder cancer, and he can find no cause." 239 Cal. App. 4th at 593. The recent case of *Wendell v. GlaxoSmithKline*, (cited with approval by Judge Karnow, SJ Order at 24) applying California substantive law, is particularly relevant because it involves a rare subtype of t-cell lymphoma. 858 F.3d 1227, 1230, 1236 (9th Cir. 2017). *Wendell* held that:

> The district court erred when it excluded Plaintiffs' experts' opinion

> testimony because of the high rate of idiopathic [unknown] HSTCL and the alleged inability of the experts to rule out an idiopathic origin or IBD itself. We do not require experts to eliminate all other possible causes of a condition for the expert's testimony to be reliable. It is enough that the proposed cause 'be a substantial causative factor." This is true in patients with multiple risk factors, and analogously, in cases where there is a high rate of idiopathy.

Id. at 1237 (internal citations omitted).

E. Plaintiff's Experts Properly Considered The IARC Monograph in Support of Their Causation Opinions

Dr. Neugut, an oncologist and epidemiologist with forty years of experience, testified that "I would say that within the scientific and academic cancer community, IARC is recognized as the main arbiter of -- the prime arbiter of what constitutes a carcinogen or a cancer-causing agent. …I would have trouble naming a second choice." Tr. at 2550:12-17. Dr. Portier also described the IARC process in great detail and explained how it supports a general causation opinion. Tr. at 1718:4-1760:12. Dr. Portier rejected Monsanto's arguments that IARC does not consider real world exposure, testifying "Well, of course they do. That's what this chapter is on, and in -- all of the human epidemiology studies are based upon human exposures, which means they're in the real world." *Id.* at 1741:21-24. Dr. Neugut concurs stating "[o]f course it's a real-world carcinogen -- obviously, the epidemiologic studies are relying on how people are really exposed in day-to-day life." *Id*. at 2600:8-2601:21.

In fact, the very safety data sheets relied upon by Mr. Johnson require the inclusion of IARC's assessment. (Unfortunately, Monsanto did not include that information while Mr. Johnson was spraying RangerPro.) As explained by Dr. Sawyer "All MSDSes -- that stands for Material Safety Data Sheet -- are required to provide the IARC classification of carcinogenicity, as IARC has been for many years the key agency internationally that determines whether or not a chemical is carcinogenic…" Tr. 3637:2-6. *See also* 29 C.F.R. § 1910.1200, Appendix A. IARC is one "of the most well-respected and prestigious scientific bodies," whose assessments of carcinogenicity of chemicals "are generally recognized as authoritative..." Reference Manual at 20, 56.

Furthermore, neither Dr. Neugut nor Dr. Nabhan "mimicked" IARC. Tr. at 2654:2-19). Both experts reached their opinions following a review of the relevant scientific data and studies. (Dr. Neugut reviewed all of the studies in depth after reviewing the IARC monograph); *id*. at 2789:7-2790:18 (Dr.

Nabhan conducted comprehensive review of the literature.)

F. There is Sufficient Evidence That Mr. Johnson's Exposure to GBHs Caused His Cancer In 2.25 Years

Latency is measured from the time of first exposure until the time of diagnosis. Tr. at 3677:4-12. Both Dr. Sawyer and Dr. Nabhan agree that the latency for NHL can be much shorter than two years and can vary based on the individual. *Id*. at 3781; July 20 Tr. at 2857-2858. Plaintiff's experts both provided numerous examples of short latency periods which confirmed their understanding that NHL can be diagnosed within a year of exposure to a carcinogen or other offending hazard. *Id*. at 2855-2859, 3676-3677. For example, the United States Center for Disease Control (CDC) issued a finding with respect to first responders at the World Trade Center that NHL can develop in 0.4 years after first exposure. *Id*. at 2858:4-2859:13, 3777:21-3779:16.

Mr. Johnson's latency would be far shorter than the median as he received a very high dosage of GBHs in a short period of time. *Id*. at 3678-3679. The fact that Mr. Johnson's cancer behaved so aggressively would also suggest that you would expect a shorter latency. Tr. at 3050.[8] It is undisputed that Mr. Johnson's first exposure to GBHs was in June 2012 and he was diagnosed with mycosis fungoides in August 2014. Therefore, the latency for Mr. Johnson's cancer is 2.25 years. *Id*. at 3676:8-3677:16. Where the CDC has determined that the minimum latency for NHL is 0.4 years, it cannot be said that the jury is "obviously and clearly wrong." Monsanto ignores the high intensity of exposure Mr. Johnson endured every time he sprayed and wants to limit the analysis to two incidents. However, Plaintiff's expert's based their opinions on the entirety of Mr. Johnson's exposure history. *Id*. at 3601:9-13; 3606, 2799:4-11, 2867. The jury carefully considered Mr. Johnson's exposure, even requesting to be read back Dr. Nabhan's testimony on the timing of Mr. Johnson's symptoms and his accidents. *Id*. at 5279:2-11.

Dr. Nabhan and Dr. Sawyer both discussed the "bell curve" associated with latency periods and both concluded that Mr. Johnson's NHL was caused by his exposure to GBHs. Monsanto cannot cite to any evidence to the contrary. Instead, Monsanto makes the conclusory statement that "Plaintiff

[8] Judge Karnow actually excluded the latency opinion of a Monsanto's Expert, Dr. Kuzel, because his opinion that Mr. Johnson's latency was too short was speculative. SJ Order at 36.

introduced no competent evidence on latency" and then proceeds to ignore Plaintiff's evidence on latency. Even if Monsanto disagrees with the opinions of Plaintiff's experts, at this state, "evidence most favorable to the plaintiff must be accepted as true and conflicting evidence must be disregarded." *Miller v. Los Angles County Flood Control Dist*., (1973) 8 Cal.3d 689, 700.

G. Dr. Sawyer's Testimony Supports a Finding that the GBHs Were a Substantial Cause of Plaintiff's NHL.

Dr. William Sawyer, a forensic toxicologist, undertook his review of the case in order to specifically determine whether Mr. Johnson's exposure was substantial enough to have caused his NHL. Tr. at 3601:20-3602:8. In reaching his opinions, Dr. Sawyer spoke with Mr. Johnson by telephone and reviewed pertinent medical records, deposition transcripts, published studies, animal studies, and internal Monsanto documents. *Id.* at 3587-3598. As a result of his education, experience and document review, Dr. Sawyer concluded that Mr. Johnson's NHL was caused by his exposure to GBHs. *Id*. at 3601:9-13; 3781:18-21.

Despite Monsanto's claims to the contrary, Dr. Sawyer did compute Mr. Johnson's dose using the available literature and the dermal absorption rate of 10 percent. *Id*. at 3746:7-19. Dr. Sawyer calculated Mr. Johnson's dose based on days of exposure and milligrams per kilogram per day using a tested model. *Id*. at 3747:2-16. By using this model, Dr. Sawyer was able to specifically compute Mr. Johnson's exposure based on the protective gear he was wearing. *Id*. at 13-19. Dr. Sawyer testified that Mr. Johnson's total exposure was sufficient to have caused his NHL. *Id*. at 3747:13-19; 3791:12-25.

Monsanto's claim that Dr. Sawyer testified that Plaintiff's dose was "less than the average in the peer-reviewed epidemiology studies" is simply not true. After calculating the total exposure levels, Dr. Sawyer opined that Mr. Johnson was "beyond the worst case that I've found in the literature which I used as my basis of calculations." *Id*. at 3674; see also 3596-3597 (testifying that Mr. Johnson was "heavily exposed" at a rate far higher than the individuals in scientific studies). Dr. Sawyer further explained that Mr. Johnson's "Tyvek" suit would have done "very little" in protecting him from exposure to GBHs. Furthermore, Mr. Johnson's sweat would have actually created an "immediate diffusion pathway to the skin." *Id*. at 3673:2-11.

When asked whether Mr. Johnson's exposure combined with the 10 percent dermal absorption rate was enough to have caused a carcinogenic response resulting in his NHL, Dr. Sawyer opined: "Yes, absolutely. He is – I can say that emphatically, and base it on the peer-reviewed literature, in that his exposure – his levels of exposure were far higher than that in the literature . . ." *Id*. at 3673:25-3674:16. Dr. Sawyer's testimony is more than sufficient for the jury to find for plaintiff on causation. *See Sparks v. Owens-Illinois, In*c., (1995) 32 Cal.App.4th 461, 477 (finding that testimony from a medical expert that plaintiff's exposure to a carcinogen is "almost certainly sufficient" to have caused cancer is sufficient as a matter of law).

IV. PLAINTIFF'S EVIDENCE WAS SUFFICIENT TO SUPPORT THE JURY VERDICT ON THE DESIGN DEFECT CLAIM UNDER THE CONSUMER EXPECTATION TEST

Plaintiff offered sufficient foundational evidence to warrant an instruction on the consumer expectation test for his design defect claim. *See* May 17 Order on Jury Instructions at 5-6. The necessary foundational evidence needed to apply the consumer expectation test is detailed in *Saller v. Crown Cork & Seal Co*., (2010) 187 Cal. App. 4th 1220:

> In addition, Saller presented evidence concerning his exposure to the product (in frequent and close proximately to those workers actually using it); the circumstances surrounding his injury (use of asbestos insulation, an apparently innocuous product, frequently produced significant amounts of asbestos-containing dust that he inhaled); and the objective features of the product relevant to an evaluation of its safety (the product was always cut or sawed when used, always produced dust, and was frequently used). Given these circumstances and the widespread use of asbestos in refineries and other industries, the jury could infer that the ordinary consumer of the product, namely refinery workers, would assume that the use of the product was safe, notwithstanding the amount of dust produced.

Saller v. Crown Cork & Seal Co., (2010) 187 Cal. App. 4th 1220, 1236.

Mr. Johnson easily meets these standards. Here, Mr. Johnson gave testimony about his use and exposure to Ranger Pro. Tr. at 3254:13-3258:24 (detailing how often and how much he sprayed); *id*. at 3263:10-11 (explaining he got Ranger Pro on his face everyday); 3259:6-3262:21 (detailing accidental exposure incident when hose detached). Mr. Johnson explained the objective features relative to the safety of Ranger Pro. *Id.* at 3229:9-3230:4. He was specifically told by the Ranger Pro sales representative that it was "safe enough to drink" and that "you don't have to worry too much about it."

Id. He was of course never told that Ranger Pro could cause cancer. *Id.* Monsanto's own expert testified that Mr. Johnson "did a good job" following the label and reducing his exposure. Tr. at 4903:3-8. Therefore, the jury could infer that the ordinary consumer of Ranger Pro would assume that Ranger Pro was safe notwithstanding the amount of drift created or total exposure to the skin.

Defendant also argues that Plaintiff was not an ordinary consumer because he was a "certified applicator." This fact is completely irrelevant as Mr. Johnson was not required to have a certificate in order to spray GBHs. *See* Tr. 3224:6-17, 3303:15-18 (Johnson testifying that "you don't need a license to spray Ranger Pro or Roundup." Dr. Sawyer further confirmed that the Ranger Pro used by Mr. Johnson has the same ingredients; same concentrations; and same mixing requirements as the Roundup Super Concentrate sold at Home Depot or Lowes. *Id*. at 3607:23-3608:8. The mere fact that he was spraying the product in relation to his employment has no effect on the application of the consumer expectation test.

As discussed below, Plaintiff has presented more than sufficient evidence of the fact that he did not expect Roundup to cause cancer and Monsanto admitted it did not warn of such a danger. *Id*. at 3234:21-25, 3279:1-12 ("Q. Had you seen something, that Ranger Pro could cause non-Hodgkin's lymphoma or cancer, would you have sprayed this product? A. I would never have sprayed that product on school grounds or around any people if I knew it would cause them harm..."). Mr. Johnson also testified that he read the label every time he used the formulation. *Id*. at 3231:3-24. The jury certainly has enough evidence to "use its own sense of whether the product meets ordinary expectations as to its safety under the circumstances presented by the evidence" and whether Monsanto failed to warn. *Arena* 63 Cal.App.4th at 1186 (quoting *Soule* 8 Cal 4th at 567, 607).

Trejo v. Johnson & Johnson is not applicable to this case. 13 Cal. App. 5th 110, 159, (Ct. App. 2017). *Trejo* involved a pain reliever which warned about severe allergic reactions, but did not specify the idiosyncratic allergic reaction suffered by Plaintiff (Steven Johnson Syndrome (SJS)). *Id.* at 119. The issue in *Trejo* resolved around the complexity of what a consumer should reasonably expect with respect to safety and not around the complexity of causation generally, holding "[t]hat causation for a plaintiff's injuries was proved through expert testimony does not mean that an ordinary consumer would be unable to form assumptions about the product's safety." *Id.* at 160. The Court noted that "allegations

of allergic and/or idiosyncratic reactions" warrant special consideration because of deeply technical issues in the design of the product with respect to allergies. *Id.* at 158. As such, the *Trejo* holding is limited to cases where a consumer suffers an individual, rare, idiosyncratic reaction to a particular product.

Precluding the application of the consumer expectations test in cases involving unusually rare idiosyncratic reactions reflects an understanding that the injured party typically cannot show that his or her injury was sufficiently common to render the injury causing product dangerous to an extent beyond that which the ordinary consumer would contemplate. Thus, the plaintiff with a specific allergic reaction would be required to offer technical details regarding the effect of the product upon [the] individual plaintiff's health." *Trejo,* 13 Cal.App.5th at 160. In other words, the design defect is not common to all consumers, but rather, is highly specific to the plaintiff based on their "unusual reaction" to the product.

Here, NHL is not an idiosyncratic and/or allergic reaction. The carcinogenicity of a product is an issue where an ordinary consumer can make assumptions about the products' safety, and in fact the carcinogenicity of pesticides is typically included on product labels. There are even animal studies designed to specifically look at the carcinogenicity of a product. Every consumer who uses glyphosate sufficiently is at an increased risk of NHL and there are currently thousands of individuals alleging that they developed NHL as a result of using glyphosate.

As explained in *Arnold v. Dow Chem. Co*., injuries from pesticides do not require an overly technical or complex review of the manufacturing process that would make the consumer expectation test inapplicable:

> This case is more like *Sparks v. Owens-Illinois, Inc*., in which the First District determined that the product at issue, asbestos-containing block insulation, was within the ordinary experience and understanding of a consumer. . .."The consumer expectations test is not foreclosed simply because expert testimony may be necessary to explain the nature of the alleged defect or the mechanism of the product's failure." (Ibid.)

(2001) 91 Cal. App. 4th 698, 727 (internal citations omitted). The court therefore rejected the very arguments made by Defendant here and determined that injuries arising from pesticides should use the same consumer expectation test espoused in *Sparks* with respect to asbestos. Thus, Monsanto's Motion for JNOV must be denied.

V. PLAINTIFF PRESENTED SUFFICIENT EVIDENCE TO SUPPORT THE JURY'S VERDICT ON THE FAILURE TO WARN CLAIMS.

The California Supreme Court has traditionally imposed strict liability for failure to warn of either known or *reasonably scientifically knowable "potential risks"* of a product. *Anderson v. Owens-Corning Fiberglas Corp.* 53 Cal.3d at 991, 1000, 1002. It is well-settled that "reasonably scientifically knowable…refers to knowledge obtainable 'by the application of reasonable, developed human skill and foresight….[t]he actual knowledge of the individual manufacturer, even if reasonably prudent, is not the issue….the manufacturer is held to the knowledge and skill of an expert in the field; it is ***obliged to keep abreast of any scientific discoveries and is presumed to know the results of all such advances***. *Carlin* 13 Cal.4th at 1113, fn. 3 (emphasis added) (quoting Anderson, *supra*, 53 Cal.3d at 1002, fn. 13).

In its motion, Monsanto again argues for federal preemption, essentially stating that if a warning is not required by a regulatory body, they cannot be liable. That is not the standard. The key question for the jury is what Monsanto knew or should have known about the risk using the "best scientific" knowledge. There is simply not a global consensus that glyphosate does not cause cancer in humans. Furthermore, the EPA and European regulators never conducted an assessment as to whether the formulated products cause cancer and the JMPR limited its analysis to whether pure glyphosate was carcinogenic through dietary exposure from crop residues. Tnrs. at 2235:1-3.

As Dr. Portier correctly pointed out, one does not look to the conclusion of regulatory bodies to determine good science; one looks to the methodology, stating "I'm not challenging the glyphosate decision. I am challenging the way in which they reached that decision, the science that they used and the way they approached that science." 2071:21-24. The jury clearly did not view the EPA or any European political agency as using the "best scientific" knowledge as it was clear they failed to follow the established guidelines reflecting the "best scientific" knowledge.

Monsanto certainly did not have to wait until the IARC review to warn about the potential for GBHs to cause NHL. Of the 269 studies cited by IARC in Monograph 112, approximately 77% of them were published before 2013. Ex. 784. All of the core epidemiology studies were published before 2008. *Id.* All of the long-term animal carcinogenicity studies were completed before 2009. *Id.* The two key studies demonstrating that GBHs caused genotoxicity in the blood of South Americans who were exposed to aerial spraying of glyphosate were published before 2009. *Id.*

Monsanto was well aware of all of the peer-reviewed studies being published over the last few decades and relied upon by IARC. P-Ex. 316 at 1-2 (email regarding "awareness files" sent to Dr. Goldstein and Dr. Farmer, attaching the Eriksson (2008) paper at the time of its publication; the study showed an association between Roundup exposure and NHL.") Because of Monsanto's awareness of all the peer-reviewed studies, Monsanto knew that IARC would find glyphosate to be either a possible or probable carcinogen. Ex. 292. In fact Dr. Heydens stated, in 2014, prior to the IARC meeting, that "we have vulnerability in the area of epidemiology, we also have potential vulnerabilities in the other areas that IARC will consider, namely, exposure, genetox, and mode of action." Ex. 294.

Plaintiff's experts applied the Bradford-Hill criteria using data that was available for years before Mr. Johnson developed NHL. Neugut, Tr. at 2614: 17-21, 2617:21-25; Portier, *id*. at 1897 (discussing doubling of the risk in epidemiological studies from 2001 and 2008); *id*. at 1965:9-11 (Dr. Portier's review of the epidemiological literature preceding the IARC decision led him to conclude that a casual association is credible); *id*. at 1981:14-22 (concluding that Roundup is genotoxic after reviewing over 100 mechanistic studies going back to the 1990s).

A. Plaintiff Does Not Need To Introduce Expert Testimony on the Standard of Care of a Reasonable Manufacturer.

Monsanto also argues that Plaintiff has not presented evidence regarding the applicable standard of care. However, this is a misstatement of what is required under the law. General negligence, unlike the medical standard of care, does not require the applicable standard of care to be established by competent expert testimony. *Scott v. C.R. Bard, Inc.* (2014) 231 Cal.App.4th 763, 787. The *Anderson Court* made it clear that the applicable standard of care is simply what a reasonably prudent manufacturer would have known and warned about." *Anderson,* 53 Cal.3d at 1002. "The formulation of the standard of care is a question of law for the court. Once the court has formulated the standard, its application to the facts of the case is a task for the trier of fact if reasonable minds might differ as to whether a party's conduct has conformed to the standard." *Ramirez v. Plough, Inc* (1993) 6 Cal.4th 539, 546. Monsanto's citation to *Stephen v. Ford Motor Co.*, (2005) 134 Cal. App. 4th 1363, 1367 (2005) is misguided. *Stephen* is not authority for the proposition that a negligent failure to warn case requires expert testimony regarding the applicable standard of care. Instead, the *Stephen* court

found that plaintiff's case failed because there was no "expert testimony establishing causation" *Id.* at 1376. Based on its finding that GBHs cause NHL, the jury certainly does not need expert testimony to come to the conclusion that defendant's failure to warn of cancer, while representing it as safe, was unreasonable under the circumstances.

B. There is Sufficient Evidence that Monsanto's Failure to Warn Caused Plaintiff's Injury

On the stand, Mr. Johnson testified clearly and unequivocally that he would never have used Roundup had he known it would cause his NHL. Tr. at 3234:21-25, 3279:1-12 ("Q. Had you seen something, that Ranger Pro could cause non-Hodgkin's lymphoma or cancer, would you have sprayed this product? A. I would never have sprayed that product on school grounds or around any people if I knew it would cause them harm… Q. And if Monsanto had told you at that time that Ranger Pro could have caused cancer, would you have kept spraying their product? A. Absolutely not… Q. Even if Monsanto had said, 'Mr. Johnson, we're not entirely sure, but your cancer might be related to your Ranger Pro exposure," would you have continued to spray the product? A. If they said it might be? Q. Even if they said "We're not entirely, but it might be," would you keep spraying? A. No."). Mr. Johnson also testified that he read the label *every time* he used the formulation. *Id*. at 3231:3-24.

Mr. Johnson's conduct and state of mind *after* his diagnosis are simply irrelevant and cannot be used by Monsanto to claim that a warning would not have been heeded. In fact, when Mr. Johnson was asked by his employer *after diagnosis* whether Mr. Johnson knew that Roundup may be carcinogenic, Mr. Johnson responded: "No, I didn't know that." *Id*. at 3235:21. Similarly, Dr. Ofodile's (Mr. Johnson's treating physician) letter to the school board requesting that Mr. Johnson not be exposed occurred after Mr. Johnson's diagnosis, when the opportunity to heed a warning was long moot. *Id*. at 3154:8-13. Importantly, the letter from Dr. Ofodile was in part prompted by the cautionary principle of preventing further exposure to substances that may have contributed to an existing cancer. *See id*. at 3155:17-25 (recommending that Mr. Johnson avoid further exposure to GBHs).

Monsanto also suggests that Mr. Johnson's concern for his health after his back-pack leaked, soaking him in Roundup, somehow indicates that a warning would not have been heeded. Monsanto Brief at 20. This makes little sense given that Mr. Johnson would not have even used Roundup, much less been exposed to substantial amounts, if Monsanto had properly warned. Moreover, Mr. Johnson's

general health concerns following exposure to a chemical are materially different to knowledge that the product causes a specific type of cancer. For the same reasons, Mr. Johnson's decision to use protective clothing is irrelevant to whether he knew that Roundup could cause NHL.

VI. PUNITIVE DAMAGES ARE APPROPRIATE WHERE, AS HERE, A MANUFACTURER FAILED TO WARN OR TAKE CORRECTIVE ACTION DESPITE KNOWLEDGE OF A DANGER OR SERIOUS INJURY

"In order for a jury to award punitive damages, it need only find that the defendant acted with malice, oppression or fraud." (Civ.Code, § 3294, subd. (a)." *Major v. Western Home Ins. Co.* (2009) 169 Cal.App.4th 1197, 1225–26. "Under the statute, "malice does not require actual intent to harm. Conscious disregard for the safety of another may be sufficient where the defendant is aware of the probable dangerous consequences of his or her conduct and he or she willfully fails to avoid such consequences. Malice may be proved either expressly through direct evidence or by implication through indirect evidence from which the jury draws inferences." *Pfeifer v. John Crane, Inc.* (2013) 220 Cal.App.4th 1270, 1299, quoting *Angie M. v. Superior Court* (1995) 37 Cal.App.4th 1217, 1228.

"The purpose of punitive damages is to punish wrongdoers and thereby deter the commission of wrongful acts."*Boeken v. Philip Morris Inc.* (2005) 127 Cal.App.4th 1640, 1689. California law is clear that "the underlying facts supporting a punitive damages award are for the jury to decide."*Romo v. Ford Motor Co.* (2003) 113 Cal.App.4th 738, 754; *Johnson & Johnson v. Superior Court* (2011) 192 Cal.App.4th 757, 760–61 (triable issue of material fact existed as to whether petitioners' failure to provide adequate warnings on over the counter medication of risk of rare and skin condition constituted malice so as to justify punitive damages, and rejecting argument that "has at all times marketed and sold Motrin with a label approved by the [FDA] and consistent with the FDA's standards for OTC medications.")

California law has long endorsed the use of punitive damages to deter continuation or imitation of a corporation's course of wrongful conduct. *Johnson v. Ford Motor Co.* (2005) 35 Cal.4th 1191, 1207; *Scott v. Ford Motor Company* (2014) 224 Cal.App.4th 1492, 1504. Under Civil Code section 3294, punitive damages "may be assessed in unintentional tort actions." *Potter v. Firestone Tire & Rubber Co.* (1993) 6 Cal.4th 965, 1004, citing *Grimshaw v. Ford Motor Co.* (1981) 119 Cal.App.3d 757, 811. "Marketing a product that is known to be defective and dangerous to consumers supports an inference of

malice for purposes of punitive damages." *Karlsson v. Ford Motor Co.* (2006) 140 Cal.App.4th 1202, 1230. Likewise, a manufacturer's failure to warn of the dangers associated with its products may be "sufficient to show malice so as to support punitive damages." *Johnson & Johnson v. Superior Court, supra,* 192 Cal.App.4th at 768.

California case law is replete with cases where punitive damages awards have been affirmed against manufacturers who have acted in conscious disregard for the safety of consumers by failing to warn or take corrective action despite knowing of a risk of harm in the use of their products. Moreover, the cases illustrate that even where the risk of harm is relatively slight, and grave injury may only occur to a small fraction of the product's users, punitive damages are nevertheless warranted due to the gravity of the potential harm resulting from a product which is used by thousands of consumers. *See e.g. Boeken v. Philip Morris Inc.* (2005) 127 Cal.App.4th 1640, 1690. "In California, it has been held that intentionally marketing a defective product knowing that it ***might cause injury and death*** is 'highly reprehensible.' " (italics added and bolded.) The jury is free to reject a defendant's claim that it "believed" its product was safe, and "the existence of governmental safety regulations does not bar an award of punitive damages for egregious misconduct that they are ineffective in preventing." *Pfeifer v. John Crane, Inc*., 220 Cal. App. 4th 1270, 1301, *as modified on denial of reh'g* (Nov. 27, 2013).

Furthermore, courts have long recognized that punitive damages are warranted when circumstantial evidence supports an inference that a manufacturer puts its own interests ahead of the safety of consumers. *See Grimshaw v. Ford Motor Company* (1981) 119 Cal.App.3d 757, 813,814 ("While much of the evidence was necessarily circumstantial, there was substantial evidence from which the jury could reasonably find corporate malice where the company proceeded with production of a product with knowledge of negative test results"); *West v. Johnson & Johnson Products, Inc*. (1985) 174 Cal.App.3d 831, 869 *supra,* (affirming award of punitive damages where evidence showed that adequate testing would have revealed an association between tampon use and toxic shock, that the manufacturer's testing was inadequate, and that the manufacturer decided not to do any further testing even when faced with consumer complaints).

Monsanto claims that a "bona fide disagreement" regarding the science absolves them of their conscious disregard of human safety in refusing to warn consumers about the findings of cancer risks

with glyphosate. This is not true, and the cases cited by Monsanto in support of this unfounded notion are misplaced. *Kendall Yacht Corp. v. United California Bank* involved a bona fide disagreement over the terms of a contract for yachts, not health and human safety. 50 Cal. App. 3d 949, 952. (Ct. App. 1975). In, *Satcher v. Honda Motor Co*., the Court applied Mississippi law which only allows punitive damages in "extreme" cases and there were no outside scientists supporting Plaintiff. 52 F.3d 1311, 1316 (5th Cir. 1995). Here, some of the top independent scientists in the world all support Plaintiff's case. *Berroyer v. Hertz*, is likewise irrelevant to this case. 672 F.2d 334, 337 (3d Cir. 1982). *Berroyer* involved a plaintiff with a tooth infection bringing an informed consent case against a dentist who had her wisdom teeth removed because her dentists warned her of the risk of cancer from an impacted teeth.

A. The Evidence Demonstrates that Monsanto Acted With a Conscious Disregard for Human Life.

The evidence in this case is more than sufficient to support the jury's award of punitive damages based on Monsanto's conscious disregard of the rights and safety of consumers, including Plaintiff Dewayne Johnson. Monsanto seeks to divert the Court's attention from the actual evidence in this case and instead urges the Court to accept its own self-serving interpretation of the evidence that its scientists believed that GBHs do not cause cancer. Such a finding would require the court to view the evidence in the light most favorable to Monsanto.

At trial, Plaintiff offered evidence demonstrating that Monsanto: (1) continued to market and sell GBHs while failing to warn consumers of a known risk of NHL; (2) did not conduct studies recommended by its own consultants, (3) did not evaluate its GBH formulations to determine the risks associated with surfactants; (4) elected to continue to market products with a POEA surfactant despite knowledge of safer alternatives; and (5) ghostwrote articles in order to publish positive safety data. Based on this evidence, the evidence supported the jury's finding that Monsanto exhibited a conscious and callous disregard of public safety in order to maximize corporate profits. *Boeken* 127 Cal.App.4th at 1690.

1. Monsanto's Scientists Protect Sales, They Do Not Evaluate the Safety of Glyphosate.

The evidence supports a finding that Monsanto prioritized money over human safety. On March 13, 1985, nine days after the EPA proposed to classify glyphosate as a Class C [possible] oncogene, Monsanto's concern was not about the safety of its customers, but rather that "the initiation of formal

regulatory action would have serious negative economic repercussions." Tr. at 3851:20-22, 3996:11-13. The EPA eventually reversed that decision after pressure from Monsanto. Monsanto has payed lip service to "product safety" and had a "Product Safety Center" headed by Donna Farmer. Ex. 536. However, as demonstrated by the evidence, the main priority of Monsanto's Product Safety Center was to "Secure the Base," "Defend and maintain the global glyphosate businesses" and "Create Future Growth: Pipeline, Regulatory Approval, Commercial Launch, and Market Expansion." *Id.* at 2. As the lead for the "Product Safety Center" Donna Farmer and her colleagues were instrumental in efforts "to influence the scientific literature to prevent its internal concerns from reaching the public sphere and to bolster its defenses in products liability actions." *Johnson* Sargon Order at 45-46.

The evidence further establishes that, as far back 1999, Monsanto was operating behind the scenes to influence the science to bolster the safety profile of GBHs. In a May 26, 1999 email from Dr. Heydens describing Monsanto's scientific outreach planning, which involves maintaining a cohort of "outside scientific experts who are influential at driving science, regulators, public opinion, etc. We would have they people directly or indirectly/behind-the-scenes work on our behalf." Exh. 378 at 1. Additionally, this plan includes "[g]et[ing] our data out there so it can be referenced and used to counter-balance the negative stuff. In some cases, we may want to publish specific work in certain world areas to help out in that region. We may use our experts as authors[.]" Id. Dr. Heydens explains that the overall agenda is to "get 'people to get up and shout Glyphosate is Non-toxic[.]'" *Id*.

2. Monsanto Refuses to Conduct Studies Recommended By Its Own Consultants

In the 1990's, several published studies concluded that glyphosate was genotoxic. Monsanto retained Dr. James Parry ("Dr. Parry") "a recognized genotox expert" to review these independent studies and "[b]ased on his critique of the the genotox papers a decision would be made [by Monsanto] as to expanding or terminating his involvement." Exhibit 263 at 2. Before receiving Dr. Parry's report Dr. Farmer conceded that "[t]here is a concern that the papers by Lioi et al, may present an even bigger problem because the studies are with glyphosate and are on [] more standard endpoints." Ex. 216. And yet, in the same email, Dr. Farmer drafts a press release stating that "[s]everal genotoxicity studies have been conducted on glyphosate … None of these studies have shown any adverse findings. Based on all these results, we are confident that glyphosate herbicide products are not genotoxic and therefore to not

present a mutagenic or carcinogenic risk to humans and animals." *Id*. at 1. It is entirely reasonable for the jury to conclude that these actions constitute deliberate deception aimed at misleading the public.

Monsanto's actions after receiving Dr. Parry's conclusions that there was evidence of genotoxicity and recommendations for further testing also support the jury's finding of punitive damages. Monsanto questioned whether Dr. Parry "has ever worked with industry before" (P-Exh. 220, at 37) and confirmed that it was not interested in an independent evaluation of the safety data. (P-Exh. 221). Dr. Heydens further exclaimed that Monsanto simply is not "going to do the tests Parry suggests"[9] and elects not to send samples of surfactants to Dr. Parry to conduct his own testing. P-Exhs 221 and 267. Donna Farmer's testimony confirmed that because Dr. Parry never came around to Monsanto's view of the science, Monsanto would not let him talk to regulators on behalf of the company. Tr. 170:8-170:21. Dr. Mark Martens, who coordinated with Dr. Parry on behalf of Monsanto, confirmed that the company never shared Dr. Parry's report outside of Monsanto. Martens Dep. at 151:6-151:22 ("Q…Monsanto never shared the Parry report with any regulatory agencies, correct? A. That's correct.").

3. Monsanto's Engages in Unethical Ghostwriting to Influence Regulators and Mislead the Public Regarding the Safety Profile of GBHs.

Evidence of ghostwriting offers strong support for punitive damages because it has the effect of polluting the scientific literature. Monsanto, unhappy with Dr. Parry's report on the genotoxicity of glyphosate, elected to surreptitiously write its own report on the genotoxicity of glyphosate and have "independent scientists" claim authorship. Monsanto consultant, John Acquavella, had to explain the obvious to Monsanto in 2015, "We call that ghost writing and it is unethical." Ex. 261. Dr. Acquavella pointed out the guidelines that "everyone goes by" in determine what is "honest/ethical" in authorship. *Id*. Monsanto repeatedly broke those guidelines.

Instead of publishing the Parry Report, Monsanto ghostwrites Williams (2000). There is no dispute that that ghostwriting is "unethical."[10] In the Williams paper, Monsanto concludes that "under present and expected conditions of use, Roundup herbicide does not pose a health risk to humans." Heydens Dep. at 402:1-4. No Monsanto employee is listed as an author on the paper despite the fact

[9] Monsanto eventually conducts only one of the eight studies suggested by Dr. Parry. Tr. 1997:19-22.
[10] Dr. Heydens spearheaded Monsanto's manipulation of the scientific literature via ghostwriting. P-Exh. 392.

that William Heydens admits that Monsanto did "the writing" and the experts just "edit and sign their names, so to speak." P-Exh. 362, at 2.

The impact of Williams (2000) on the scientific literature cannot be ignored. In a 2010 PowerPoint presentation, Monsanto describes the Williams (2000) as an "invaluable asset for response to agencies [and] regulatory reviews" and that Williams (2000) has "served us well in the past." P-Exh. 373, at 12, 17. Williams (2000) infects the scientific literature. For example, the only biological plausibility that Monsanto's epidemiology expert, Dr. Lorelei Mucci, reviewed in reaching her opinions was the summary of studies contained "in the epidemiologic studies." Tr. at 4318:1-5. This is a problem. In De Roos (2003) which shows a statistically significant doubling of the risk of NHL with glyphosate, the results were muted by citation to the Williams (2000) article as evidence that glyphosate is "non-carcinogenic and non-genotoxic." *Id*. at 1888:7-11.

a. Monsanto Continues its Unethical Ghostwriting as it Proves a Winning Strategy.

In the 2010 PowerPoint describing Williams as an "invaluable asset", Monsanto notes that they are facing "regulatory reviews" with an increased "focus on claims in the peer-reviewed literature." P-Exh. 373 at 17. Monsanto notes that "Williams has served us well in toxicology over the last decade," but they need a "stronger arsenal of robust papers scientific papers." *Id.* Accordingly in November 2010, Monsanto starts ghostwriting sections of the Williams (2012) paper. Donna Farmer confirmed this in an email to a listed author where she states, "Attached is the first 46 pages. I added a section in genotox… am working on a section for gasiner in the mechanistic section…Also we cut and pasted in summaries of the POEA surfactant studies." P-Exh. 258. Donna Farmer confirms that her name was removed from the list of authors before it was published. Farmer Dep. 118:22-119:06.

In 2013, Monsanto ghostwrites another article: Kier & Kirkland (2013). The noted "authors" of the study are Drs. Kier and Kirkland, however, internal documents reveal that David Saltmiras of Monsanto was the original author of the paper. In requesting funding for the manuscript, Saltmiras stated that it "will be a valuable resource in future product defense against claims that glyphosate is mutagenic or genotoxic." P-Exh. at 443. However, after the initial draft Monsanto felt that "the manuscript turned into such a large mess of studies reporting genetoxic effects, that the story as written stretched the limits of credibility among less sophisticated audiences." P-Exh. 445, p. 2. Therefore, it was decided that a

way to "help enhance credibility is to have an additional author on the papers who is a renowned specialist in the area of genotoxicity. Monsanto identified Dr. David Kirkland as the best candidate" and David Saltmiras' name. *Id.*

Due to the "severe stigma" of the IARC classification of glyphosate as a 2A carcinogen, Monsanto decided to ghostwrite a new article to "Provide additional support ('air cover') for future regulatory reviews" and for "litigation support." P-Exh. 391 at 3. Monsanto decided that the "majority of writing can be done by Monsanto." *Id*. at 6. Monsanto's legal department considered this plan "Appealing" and "best if use big names." *Id*. at 11. The ghostwritten article became Williams (2016). In the article, Monsanto lies to the public and regulatory agencies by "claiming that neither any Monsanto Company employees nor any attorneys reviewed any of the expert panel manuscripts prior to submission to the journal." Heydens Dep. at 129:1-130:25. In fact, Monsanto wrote portions of it and had final say on the editing of the paper. *Id.* at 129:1-130:25, 161:3-166:16. Monsanto's extensive involvement in this article is documented in exhibits 363, 366, 368, 369, 371, 373, 394.

b. Monsanto's Ghostwriting Was Specifically Targeted to Combat Repeated Studies Showing that Glyphosate is Genotoxic

On May 12, 2000, Monsanto becomes aware of an Abstract from McDuffie, et al., showing an increased risk of NHL from glyphosate in a Canadian epidemiology study. P-Exh. 309. Monsanto Epidemiologist John Acquavella travels to the conference in August 2000, where he speaks to Dr. McDuffie and gives her a copy of the ghostwritten Williams (2000) (referred to in memo as Cantox glyphosate review). P-Exh. 311. The next year, Donna Farmer congratulates John Acquavella and Dan Goldstein for being able to get the glyphosate results out of the abstract. P-Exh. 312 ("the fact that glyphosate is no longer mentioned in the abstract is a huge step forward – it removes it from being picked up by abstract searches!").

In a June 11, 2002 memorandum, Drs. Farmer, Goldstein, and Acquavella discuss the current state of science and note that: "[a]llegations based on results from epidemiologic studies have begun to affect our freedom to operate … localities have cited epidemiologic findings to ban "non-essential use" of pesticides, usurping federal regulations that are based on toxicologic data. There are now six published studies that arguably associate glyphosate and other pesticides with lymphopoietic cancers[.]" *Id*. at 2 (emphasis added). The memorandum further states, "[n]umerous other studies are ongoing in the U.S.,

Canada, and Europe.. . The stage is set, therefore, for more allegations about human effects associated with glyphosate and other pesticides." *Id.* at 3 (emphasis added).

In 2003, the National Cancer Instute Study (NCI) from DeRoos is published showing a statistically significant doubling of the risk of NHL for Glyphosate. Monsanto's concern is not that its customers may be at risk, but rather that the findings "may add more fuel to the fire for Hardell, et al." P. Exh. 314. Hardell also found an increased risk of NHL with glyphosate. Monsanto states "It looks like NHL and other lymphopoetic cancers continue to the main epidemiology issues both for glyphosate alachlor." *Id.*

In 2008, the Eriksson study was published showing a statistically significant doubling of the risk of NHL for glyphosate users. Monsanto did not try to warn consumers about this result instead Donna Farmer states "[w]e have been aware of this paper for awhile and knew it would only be a matter of time before the activists pick it up." P-Exh. 513. Monsanto was concerned that "activists" based on the Eriksson study were recommending that people "avoid carcinogenic herbicides .. on lawns by using non-toxic land care strategies that rely on soil health, not toxic herbicides." *Id.* Donna Farmer wanted to know "how do we combat this?" *Id.*

4. Monsanto Fails to Test Its Glyphosate Formulations Despite Knowledge that the Surfactants Were Hazardous and Capable of Promoting Tumors.

There are known carcinogens in the formulated Roundup product which are not disclosed in the label. Dr. Sawyer testified to the presence of 1,4-Dioxane and ethylene dioxide "one of the most potent carcinogens known to man" and that the presence of surfactants, such as POEA, increase absorption of Roundup through human skin. Tr. at 3609:21-3610:5, 3633:23-3623:16. In 2002, Mark Martens created a power-point stating "Surfactants are biologically not 'inert', they can be toxic and this must be addressed" P-Exh. 209 at 27. Dr. Marten's stated that the "[t]his in-vivo genotoxicity finding was cause of concern[.]" Exh. 209 at 15; Marten Dep. at 176:13-16 ("So now these are your thoughts that the genotoxicity finding in vivo was of concern, correct? A Yes."). However, Monsanto ignored this recommendation and has not addressed the carcinogenicity of surfactants. It is undisputed that Monsanto has never conducted an animal carcinogenicity study on Roundup. As noted by Donna Farmer in 2009 in an internal communication "you cannot say that Roundup does not cause cancer … we have not done

carcinogenicity studies with 'Roundup.'" P-Exh. 305. No carcinogenicity studies have ever been conducted on surfactants. 3614:11-14 (Sawyer testimony).

In 2008, Europe was beginning to question the safety of tallow amine (the surfactant used in RangerPro). There were internal communications deliberating whether to even defend tallow amine in Europe because "there are non-hazardous formulations, so why sell a hazardous one?" P-exh. 383. Monsanto recognized that tallow amine was facing an "impending demise" in Europe but decided to defend tallow amine anyway due in part to the fear of this issue "coming across the Atlantic" to the "American Hemisphere." Dr. Sawyer confirmed that there are safer alternatives. Trns. at 3626:15-3627:17. Williams Heydens admitted that the "surfactant played a role" in the George (2010) tumor promotion study. P-Exh. 366 at 3.

5. Monsanto Devotes Enormous Resources to Attacking IARC's Conclusions Instead of Warning The Public of The Cancer Risk.

In October 2014, after Monsanto learned that IARC was going to evaluate the carcinogenicity, William Heydens stated that Monsanto had "vulnerabilities" in all the areas considered by IARC, "namely epi, exposure, genotox and mode of action." P-Exh. 294. On November 11, 2014, Mr. Johnson calls Monsanto "…just trying to find out if it [cancer] could all be related to such a large exposure to Ranger Pro since he stated his skin was always perfect until this happened. He is looking for answers." P-Exh. 332. No one from Monsanto ever called Mr. Johnson back.

In February 2015, a month before IARC actually makes a decision on glyphosate, Monsanto starts developing a plan to "orchestrate outcry over IARC decision." P-Exh. 292 at 5. Monsanto developed the plan to "orchestrate outcry" because they assumed that data would support either a 2b (possible human carcinogen) or a 2A (probably human carcinogen). *Id.* at 1. By attacking IARC, Monsanto was trying to protect glyphosate's FTO (freedom to operate). *Id.* at page 5. The "outcry" was intended to reach both "IARC panelists" and "Regulators." *Id.* Part of this plan was to have "Industry conducts robust media/social media outreach." As part of the planned IARC response, Dr. Goldstein was tasked with ghostwriting editorials for "independent" doctors to dispute the IARC findings. 136:13-137:2. Despite IARC's objective analysis, Monsanto proceeded with their plan to orchestrate outcry over IARC.

On March 27, 2015, Mr. Johnson calls Monsanto's hotline again informing the company that "he has recently been diagnosed with cutaneous T cell lymphoma. He has concerns about continuing to use

Roundup as part of his job and questions if Roundup could be a source of his cancer… The caller's level of fear is rising over his continued use of Ranger Pro." P-Exh. 334 at 5. Mr. Johnson is told by the operator that his NHL is not an "expected response from the product." No one from Monsanto calls him back. Even if Dr. Goldstein of Monsanto intended to call him back, the behavior would still be reprehensible because Dr. Goldstein would have told him to keep using RangerPro. Goldstein Dep. at 56:07-57:11.

Instead of devoting resources to informing people like Mr. Johnson about the risk of NHL with GBHs, Monsanto devoted its vast resources to attacking IARC. In fact, Steve Gould exclaimed that "We are all over it! More resources than I have seen in my career!" P-Exh. at 289. Enormous resources were devoted to fighting IARC in California because in a Sept. 2015 cost-estimate prepared by Monsanto about the impact of IARC on the sale of Roundup products to municipalities and school districts, Monsanto projected large losses to business. P-Exh. 291. at 1. Indeed, Mr. Gould notes that "[c]ustomers that I am aware have already stopped using Glyphosate since the IARC ruling: Irvine Unified School District and several bay area cities and school districts." *Id*. Without any knowledge of the risks of Ranger Pro, Mr. Johnson continued to spray the product while covered in open sores caused by his NHL. These facts further support the jury's award of punitive damages.

6. Monsanto Works with EPA to Kill ATSDR Review of the Risks of Glyphosate.

In evaluating glyphosate the EPA failed to follow its own carcinogenicity guidelines. Trns. 4607:23-4608:13, 4610:1-4, 4620:25- 4611:11 4613:1-3; 4629:15-20, 4631:23-4632:4. One of the reasons the EPA failed to follow guidelines was due to inappropriate relationships between certain EPA employees and Monsanto employees. On April 28, 2015, three months before IARC published the full monograph on IARC, Jess Rowland, head of the Office of Pesticide Programs Cancer Assessment Review Committee told Monsanto's regulatory lead, Dan Jenkins, that he would find that glyphosate was not carcinogenic before he even reviewed the data. P-Exh. 404. Rowland stated that "We have enough to sustain our conclusions. Don't need gene tox or epi …I am the chair of the CARC and my folks are running this process for glyphosate in reg review. I have called a CARC meeting in June" *Id.* at 2 Mr. Rowland further stated that with respect to an ongoing review of glyphosate by the the Agency for Toxic Substances and Disease Registry (ATSDR), "If I can kill this [review] I should get a medal." *Id.* Dan

Jenkins relates to his coworkers that "Jess doing a nice job at EPA." P-Exh. 0401 at 1. When learning that the National Toxicology Program "appear to have accepted IARC's opinion that glyphosate and its formulations display two characteristics of carcinogens: Genotoxicity and oxidative stress that Ivan Rusyn and Christopher Portier worked so hard to create" Dr. Farmer's colleagues noted that they would have to bring in Capitol Hill to address the development. 504:4-501:16. Monsanto also used its political connection influence the findings of the EPA by getting "some key Democrats on the hill to start calling jim [jones, Assistant Administrator]" which "shoots across his bow generally that he's being watched." P-Exh. 184 at 8.

In addition to lobbying the EPA, Monsanto hides essential information from the EPA. For example, as a policy Monsanto does not submit reports of its own employees developing NHL after handling glyphosate. Exh. 326. Monsanto admitted it did not submit the Parry reports to the EPA. Trns. at 1587:15 - 1588:2; Martens Dep. at 151:6-22.

B. Monsanto's Actions Were Despicable And Support an Award of Punitive Damages

For forty years, Monsanto was faced with good science demonstrating that there was a potential risk of cancer with its product. Rather than take these studies seriously, Monsanto actively engaged in a fraudulent campaign to combat this science and try to convince the world its product was non-toxic. Monsanto continues to this day to claim its product does not cause cancer, when, as it clearly knows that you "cannot say that Roundup does not cause cancer'" P-Exh. 305 at 1. This is despicable. Monsanto's actions should not be tolerated by this court.

Monsanto's pressuring of the EPA and other federal agencies is evidence of its conscious disregard of human life and is appropriate evidence to support punitive damages. Monsanto cites no case that would absolve it of punitive damages in a civil trial on this basis. Monsanto is essentially raising an anti-Slapp affirmative defense for the first time after trial. The anti-Slapp statute has specific procedures that Monsanto failed to follow and has thus waived. Cal. Civ. Proc. Code § 425.16. However, this statute applies only to official proceedings and actions conducted for proper purposes. *Id.* Monsanto's contacts with the EPA were done unofficially and violated federal regulations which allow for only official on-the-record meetings. 40 CFR 155.52.

Finally, Dr. Goldstein's failure to call Mr. Johnson back demonstrates a conscious disregard for human life and demonstrates a pattern and practice of Monsanto. It is particularly despicable because

Dr. Goldstein would have told Mr. Johnson to keep using Ranger Pro if he had call him back. Goldstein Dep. at 56:07-57:11. There is evidence that Dr. Goldstein's failure had the potential to worsen and did worsen, Mr. Johnson's cancer.[11]

C. There is Clear and Convincing Evidence That Managing Agents at Monsanto Acted With Malice and Oppression

One simply has to read the emails and it becomes clear that Donna Farmer, Williams Heydens, Daniel Goldstein, and Mark Martens exercised substantial independent authority in corporate decision making. Furthermore, Monsanto's entire defense at trial was based on a ratification of the conduct of these executives. *Hale v. Farmers Ins. Exch.,* (1974) 42 Cal. App. 3d 681, 698, 117 Cal. Rptr. 146, 158 ("[o[ne of the methods of showing a ratification of an agent's unauthorized act is by bringing an action or basing a defense on the unauthorized act.").

California law broadly construes "officers, directors, or managing agents" for the purposes of inferring punitive intent. *See, e.g., Egan v. Mutual of Omaha Ins. Co.* (1979) 24 Cal.3d 809, 822. "Managing agents" are employees who "exercise[] substantial discretionary authority over decisions that ultimately determine corporate policy." *Davis v. Kiewit Pacific Co.* (2013) 220 Cal.App.4th 358, 366 (quoting *White v. Ultramar, Inc.* (1999) 21 Cal.4th 563, 573). "[T]o demonstrate that an employee is a true managing agent … a plaintiff seeking punitive damages would have to show that the employee exercised substantial discretionary authority over significant aspects of a corporation's business." *White*, 21 Cal.4th at 577. "The scope of a corporate employee's discretion and authority under our [managing agent] test is therefore a question of fact for decision on a case-by-case basis." *Id.* at 567. "***If there exists a triable issue of fact regarding whether a corporate employee is a managing agent*** under the *White* test, that factual question must be determined by the trier of fact and not the court[.]" *Davis*, 220 Cal.App.4th at 366 (emphasis added).

Furthermore, there is no requirement that the evidence establish that a particular committee or

[11] Dr. Nabhan testified "If they're being exposed to an agent that may be causing the cancer, you would tell them not to be exposed to this particular agent because it could make the cancer worse..." 2812:21-24. Dr. Ofodile concurs stating for "me and my patient's health, it's not worth the risk." 3156:3-4. Dr. Nabhan explained that he would have told Mr. Johnson to "immediately stop" spraying glyphosate if he was in Dr. Goldstein's shoes. 2868:19-2689:25. Dr. Goldstein never called Mr. Johnson back and Mr. Johnson kept spraying RangerPro. In September 2015 (ten months after Mr. Johnson called Dr. Goldstein, and six months after IARC), Mr. Johnson's cancer transformed from a manageable cancer to a fatal cancer. 2882:4-2884:15.

officer of the corporation acted on a particular date with 'malice.' ***Corporate defendant cannot shield itself from liability through layers of management committees and the sheer size of the management structure***. *Romo v. Ford Motor Co.,* (2002) 99 Cal 1115, 122 Cal.2d 139 (2002) *overruled in part on other grounds* (italics added and bolded).

Here, the evidence of Monsanto's corporate malice was presented through the testimony of five Monsanto-company witnesses: Dr. Donna Farmer, Dr. William Heydens, Dr. Daniel Goldstein, Dr. Mark Martens, and Daniel Jenkins. By all accounts, these employees were "officers, directors, or managing agents" because they possessed considerable discretion in managing the safety, science, and testing of the Roundup (and Ranger Pro) product. Indeed, Monsanto relies on the testimony of these witnesses to prove the company's "state of mind" regarding the state of science and, thus, their state of mind regarding malice must, by definition, also impute to Monsanto.

- Dr. Farmer testified[12] that she has been working at Monsanto for 25 years and has "been one of the spokesperson[s] for the safety of Roundup when it comes to the toxicology." Farmer Tr. 14:11-13; 15:5-7. She explained, "based on that in-depth knowledge for over those many, yes, I was asked to be -- help defend glyphosate." *Id.* at 19:3-8. And, as described in admitted exhibit 536, her job was to "[d]efend and maintain the global glyphosate businesses[.]" Exh. 536;

- Dr. Heydens is Dr. Farmer's boss. Farmer Tr. at 152:16-19. Dr. Heydens testified that he is the "product safety assessment strategy lead" Heydens Tr. at 289:23-290:9. Dr. Heydens is also lead of Monsanto's "product safety center" where he oversaw "the group of scientists … responsible for demonstrating the safety of Monsanto's biotechnology portfolio." *Id.* at 301:13-18;

- Dr. Goldstein testified that he is Monsanto's Director of Medical Toxicology, and that "in terms of, you know, line responsibility for human toxicology issues, that has resided with me for most of the last 19 years." Goldstein Tr. at 297:7-16; 298:15-24. In his senior role at the company, he testified that "I have final sign-off on any materials coming into all of our manufacturing facilities around the globe." *Id.* at 302:9-303:20;

- Dr. Martens testified that he was Monsanto's Director of Toxicology in Europe and Africa starting in 1992 through 2004. Martens Tr. at 18:9-18. Indeed, Dr. Martens confirmed that, within Monsanto, he was at the same level as Dr. Farmer, but in Europe. *Id.* at 35:19-22;

[12] All testimony cited was played to the jury.

- Daniel Jenkins was Monsanto's U.S. Agency Lead in Regulatory Affairs, and represented Monsanto before various federal agencies. Jenkins Tr. at 36:6-10; *see* Exh. 400 at 2. He was responsible for interfacing with regulatory agencies regarding glyphosate data and making strategic decisions about how interact with the EPA and other regulators. *Id.*

Clearly, these five Monsanto witnesses possess sufficient discretion in conducting Monsanto's business and, thus, qualify as "officers, directors, or managers." At the very least, this testimony, when viewed a light most favorable to Plaintiff, support's the jury's unanimous verdict on the facts that Monsanto's conduct was authorized at the higher levels of the company.

VII. CONCLUSION

Monsanto fails to meet its heavy burden of overturning a unanimous jury verdict reached by a panel of highly educated, sophisticated, and impartial jurors. Attacks on the admissibility of Plaintiff's experts cannot challenge the jury's finding of the sufficiency of the evidence based on the competent testimony presented by Plaintiff's experts. Moreover, Monsanto's re-hashed arguments that regulatory approvals of Roundup shield it from liability are still meritless. The jury heard Monsanto's regulatory arguments and unanimously decided that Plaintiff's evidence was much stronger. Lastly, the punitive damages award is supported by the copious evidence marshalled by Plaintiff, as approved by Judge Karnow, in support of the finding that Monsanto's conduct amounted to reckless disregard for human life, specifically Mr. Johnson's life. Judge Karnow was right, it was likely that a jury could find Monsanto liable for punitive damages based on this record. The jury's unanimous verdict is able to withstand Monsanto's old arguments that have failed on numerous times across multiple jurisdictions. It is time for this company to compensate Mr. Johnson for the tragic harms incurred by him. For all of the foregoing reasons, Monsanto's Motion for Directed should be denied.

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Respectfully submitted,

/s/ Curtis G. Hoke

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