THE SUPREME COURT

OF THE STATE OF NEVADA

FORD MOTOR COMPANY, Appellant, v. THERESA GARCIA TREJO AS THE SUCCESSOR-IN-INTEREST AND SURVIVING SPOUSE OF RAFAEL TREJO, DECEASED, Respondent.	**Supreme Court Case No. 67843**

APPEAL FROM THE EIGHTH JUDICIAL DISTRICT, COUNTY OF CLARK
THE HONORABLE VALERIE ADAIR, DISTRICT JUDGE
DISTRICT COURT CASE NO. A-11-641059-C

APPELLANT'S OPENING BRIEF

HORVITZ & LEVY LLP
LISA PERROCHET (*PRO HAC VICE*)
EMILY V. CUATTO (*PRO HAC VICE*)
15760 VENTURA BOULEVARD, 18TH FLOOR
ENCINO, CALIFORNIA 91436-3000
(818) 995-0800 • FAX: (818) 995-3157
lperrochet@horvitzlevy.com
ecuatto@horvitzlevy.com

SNELL & WILMER L.L.P.
VAUGHN A. CRAWFORD (SBN 7665)
JAY J. SCHUTTERT (SBN 8656)
MORGAN T. PETRELLI (SBN 13221)
3883 HOWARD HUGHES PARKWAY,
SUITE 1100
LAS VEGAS, NEVADA 89169
(702) 784-5200 • FAX: (702) 784-5252
vcrawford@swlaw.com
jschuttert@swlaw.com
mpetrelli@swlaw.com

THOMPSON COE COUSINS & IRONS, L.L.P.
MICHAEL W. EADY (*PRO HAC VICE*)
701 BRAZOS STREET, 15TH FLOOR
AUSTIN, TEXAS 78701
(512) 708-8200 • FAX: (512) 708-8777
meady@thompsoncoe.com

ATTORNEYS FOR APPELLANT
FORD MOTOR COMPANY

DISCLOSURE STATEMENT (NRAP 26.1)

Defendant Ford Motor Company has no parent corporation. State Street Corporation, a publicly traded company whose subsidiary State Street Bank and Trust Company is the trustee for Ford common stock in the Ford defined contribution plans master trust, has disclosed in filings with the U.S. Securities and Exchange Commission that as of

December 31, 2014, it holds 10% or more of Ford's common stock, including 5.9% of such stock beneficially owned by the master trust.

Dated: November 9, 2015

HORVITZ & LEVY LLP
LISA PERROCHET (*Pro Hac Vice*)
EMILY V. CUATTO (*Pro Hac Vice*)
SNELL & WILMER L.L.P.
VAUGHN A. CRAWFORD (SBN 7665)
JAY J. SCHUTTERT (SBN 8656)
MORGAN T. PETRELLI (SBN 13221)

By: s/Emily V. Cuatto
Emily V. Cuatto
Horvitz & Levy LLP
15760 Ventura Blvd., 18th Floor
Encino, California 91436

By: s/Jay J. Schuttert
Jay J. Schuttert
Snell & Wilmer L.L.P.
3883 Howard Hughes Parkway, Suite 1100
Las Vegas, Nevada 89169

Attorneys for Appellant
FORD MOTOR COMPANY

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JURISDICTIONAL STATEMENT

Defendant Ford Motor Company properly appeals from a final judgment on a jury verdict, an order denying Ford's motion for a new trial, and a post-judgment order awarding plaintiff costs of suit. NRAP 3A(b)(1), (2), (8).

This appeal is timely. Plaintiff's counsel served notice of entry of judgment on the jury's verdict on October 8, 2014. (15 JA 3398-3402.) Ford timely filed a renewed motion for judgment as a matter of law or, in the alternative, a motion for new trial on October 21, 2014. (15 JA 3533-67); NRCP 6(e), 50(b). Notice of entry of the district court's order denying those motions was served on March 19, 2015. (15 JA 3676-82.) Ford appealed within 30 days, on April 16, 2015. (15 JA 3683-84); NRAP 4(a)(1).

ROUTING STATEMENT

In this strict products liability action, the jury applied the "consumer expectations" test to find that the roof of a 2000 Ford Excursion was defectively designed. The Supreme Court should retain

this appeal for two reasons. First, it concerns a sizeable verdict of $4.5 million. Second, it presents a question of first impression and statewide importance: whether the risk vs. benefit test, rather than the consumer expectations test, should govern complex product design cases where ordinary consumers cannot reasonably evaluate a product's expected performance in unfamiliar circumstances. NRAP 17(a)(13), (14).

STATEMENT OF THE ISSUES

1. Is Ford entitled to judgment, or at least a new trial, because plaintiff offered no competent evidence that a design defect caused the decedent's injuries?

2. Is Ford entitled to judgment because the court incorrectly instructed the jury on a consumer expectations test in a case in which the design issues were outside the ordinary consumer's experience and the risk vs. benefit test was required instead?

STATEMENT OF THE CASE

In this strict products liability action arising from the death of Plaintiff Theresa Garcia Trejo's husband in a rollover accident, Ford appeals from a judgment finding that the accident vehicle—a Ford Excursion—had a defectively designed roof. There was no claim at trial that the Excursion's design was responsible for the rollover itself—the plaintiff's loss of control of the vehicle caused that. Instead, this case is solely about whether plaintiff's husband, Rafael Trejo, died because the Excursion's roof was not crashworthy as designed, having deformed up to eleven inches when the Excursion rolled over at least twice. On that question, Ford is entitled to judgment for two independent reasons.

First, plaintiff presented no competent evidence that the Excursion's roof design caused her husband's injuries. Plaintiff's causation expert simply assumed that the roof deformed all at once, pinning Mr. Trejo in a fixed position during the first time the car rolled over. Plaintiff's own roof design expert explained, however, that the roof deformation occurred cumulatively over the course of multiple rolls, making the pinning scenario impossible. The causation expert's opinion thus lacked any competent factual foundation. The trial court

erroneously permitted the medical examiner to bolster plaintiff's causation theory with post-treatment opinions. When the medical examiner's improper opinions are properly excluded, Ford is entitled to judgment, or at least a new trial.

Second, in a case involving the design of complex products for performance in circumstances unfamiliar to the ordinary consumer, the proper test for defect is the risk vs. benefit test. That test asks the jury to decide, based on expert testimony, whether there was a reasonable alternative design the defendant should have adopted to avoid the foreseeable risks of injury, considering the risks and benefits of both designs. Only a risk vs. benefit instruction was capable of directing the jury to consider the parties' expert evidence concerning the *overall* risks (and lack of benefits) of strengthening a roof as plaintiff's expert had proposed.

Plaintiff opposed Ford's request to instruct the jury under the risk vs. benefit test, choosing instead to proceed under the consumer expectations test. That test instructs a jury to find a defect whenever the product did not perform as an ordinary consumer reasonably would have expected. But ordinary consumers have no "reasonable

expectations" about how vehicle roofs are designed to operate in rollover crashes, and cannot know whether a different roof design would be safer overall. The consumer expectations instruction thus improperly allowed the jury to accept plaintiff's argument that it could find for plaintiff simply because Mr. Trejo was unexpectedly injured. That is not the law. Manufacturers are responsible for designing products that are reasonably safe, not insuring against all injuries.

Because the consumer expectations test was the wrong test for this case—and because plaintiff's evidence could never have satisfied the applicable risk vs. benefit test—judgment for Ford is required.

STATEMENT OF FACTS

A. Plaintiff loses control of the Excursion, causing a single-vehicle rollover accident in which her husband is fatally injured.

In December 2009, plaintiff Theresa Garcia Trejo, her husband Rafael Trejo, and her brother were traveling from their home in Las Vegas to Mexico. (9 JA 2070–72, 2075-77.) They hitched a homemade trailer to a Ford Excursion that plaintiff's brother had purchased a

couple of days earlier, and loaded that trailer with basically all of their household possessions, including large appliances. (9 JA 2076-77, 2089-91.)

While driving on a highway through New Mexico, the Trejos were in a catastrophic accident. (16 JA 3700-17, 3730.) Plaintiff, who had never before driven an Excursion or towed a loaded trailer, was driving. (9 JA 2076, 2090-91.) Mr. Trejo was in the front passenger seat, and plaintiff's brother was in the back. (16 JA 3730.) Plaintiff veered to avoid a truck merging onto the highway and lost control of the Excursion and trailer. (9 JA 2078-79.) The Excursion flipped onto its roof at least twice, coming to rest upside-down. (9 JA 2079.)

Mr. Trejo fractured his spine and was pronounced dead at the scene. (16 JA 3719, 3721, 3737.)

B. Plaintiff sues Ford for her husband's death, alleging that the Excursion was not crashworthy.

1. Plaintiff contends roof crush caused her husband to hyperflex his neck and asphyxiate.

By the time the case went to the jury, plaintiff advanced only a single claim of strict liability. (10 JA 2397-98; 14 JA 3387-88.) In support of that claim, she maintained that the Excursion's roof was defective in design because it partially caved in during the rollover. (*See* 4 JA 911.)

To support her theory that roof crush caused her husband's death, plaintiff relied on biomechanical causation expert Joseph Peles. Deferring to other experts for information about the structural impact of the crash on the Excursion, Peles assumed that the roof had deformed at least ten inches during the *first* impact with the ground. (8 JA 1734–35, 1876-80; *see also* 1 JA 39-40.) Specifically, his biomechanics analysis assumed deformation of one inch to compress the seat, four or five inches to close the gap between Mr. Trejo's head and

the roof, and another six inches to push Mr. Trejo's head down into a bent, pinned, position. (8 JA 1879–80.)

Using his assumption, Peles opined that roof crush pinned Mr. Trejo against his seat cushion and caused his neck to hyperflex—to be pushed forward farther than the body can withstand—fracturing his neck and blocking his airway. (8 JA 1787.) Peles concluded that Mr. Trejo's body stayed pinned in that position throughout the roll sequence and "as he sat there after the accident," resulting in asphyxiation. (8 JA 1734-35, 1738, 1746, 1787, 1852-53.) Without hyperflexion, Peles believed Mr. Trejo would not have died. (8 JA 1870.)

Plaintiff also offered testimony of the medical examiner who had conducted Mr. Trejo's autopsy, Dr. Ross Zumwalt. (8 JA 1937, 1940.) In the official autopsy records, Dr. Zumwalt recorded "evidence of a blunt trauma to the head with an impact to the top and back of the head, which resulted in a fracture of the lower cervical spine." (8 JA 1946; 9 JA 1978, 1980; 16 JA 3724, 3737.) According to the records, death occurred in "seconds." (9 JA 1978; 16 JA 3737.)

At trial, and over Ford's objection (2 JA 244–66; 8 JA 1917–34), Dr. Zumwalt gave a new opinion, theorizing that the "most likely" cause

of Mr. Trejo's spinal fracture was hyperflexion, and that Mr. Trejo's death could have had an asphyxia component (8 JA 1953-56; 9 JA 1963, 1981–82, 1998). Dr. Zumwalt admitted that he had not included positional asphyxia in his autopsy report. He admitted, too, that asphyxia takes "minutes" (not "seconds"). (9 JA 1981.) And he admitted that he could *not* say that the criteria for listing positional asphyxia as the cause of death were satisfied in this case. (9 JA 1976, 1981–82.) Having no engineering or biomechanic expertise, Dr. Zumwalt offered no opinion on how hyperflexion or asphyxia could have been caused by the roof design.

2. Plaintiff contends the roof should have deformed less during the rollover.

On the issue of the roof's crashworthiness, plaintiff's sole witness was mechanical engineer Brian Herbst, who testified about how the roof performed and how that performance related to Mr. Trejo's injuries. (5 JA 1161-62, 1165.)

As to how the roof performed in the accident, Herbst explained that the roof above Mr. Trejo deformed inwards a total of about ten and

one-half inches over the course of the rollover sequence. (6 JA 1377.) He opined that more than fifty percent of the total crush occurred during the roof's impact with the ground on the first roll, but he could not be more specific. (6 JA 1359.) There was "certainly" "additional crush" that occurred as the car began to roll a second time and came to rest on its roof. (*Id.*) Herbst also noted that Ford had advertised "safety cell" construction in the Excursion (5 JA 1180-81; 17 JA 4025), and implied that, from his perspective, the roof did not meet consumer expectations arising from a such a construction.

As to how the roof should have performed differently, over Ford's objections (*see* 1 JA 68–75, 94–105; 5 JA 1011–22, 1050), Herbst described "drop tests" he performed (*see* 17 JA 4087-4175; 18 JA 4176-4304). When Herbst dropped an ordinary production version of the Excursion upside down on the corner of the roof from one foot high, it experienced approximately the same vertical crush as the Trejo Excursion's roof had experienced during two impacts with the ground as it rolled. (6 JA 1263-70; 16 JA 3174-75; 17 JA 4161-71.) Herbst ran the same test on an Excursion he had reinforced with steel and foam, adding 150 pounds of weight to the vehicle. (6 JA 1303-10, 1382–83.)

The heavily reinforced roof experienced little deformation. (6 JA 1314–16; 18 JA 4237–66.)

Based on these tests, Herbst opined that the Trejo's multiple-rollover accident was not very severe, equating it to a "fender bender." (6 JA 1272.) He also testified that, had Ford built a more rigid roof, the *roof* would have fared much better in the accident. (5 JA 1201.)

Although the trial court had admitted Herbst's opinions on the assumption Herbst would establish that the forces in his drop tests were similar to the accident forces (5 JA 1021-22), Herbst conceded at trial that his drop tests did *not* replicate the forces present in the actual rollover (6 JA 1362). Herbst also admitted he did not use crash-test dummies—one of the standard tools used to examine the relationship between roof crush and injuries in rollovers—in his drop tests. (6 JA 1385.) Although he had used dummies during testing in other cases (2 JA 292–93), he did not use them here because, he believes, they are not sufficiently human-like to test for neck injuries (6 JA 1408-10; *see also* 8 JA 1800–01). In fact, Herbst did not do any testing, or even calculations, as to what the forces would be on the occupants throughout the accident. Instead, he relied on the assumption that less

deformation was necessarily better for the occupants in every case. (*See* 6 JA 1331.)

Notwithstanding his stronger-is-better assumption, Herbst admitted that a *non*-defective roof could crush as much as the Excursion's did, and that serious injuries can occur in a rollover accident no matter how rigid the roof. (6 JA 1234, 1351.)

C. Plaintiff successfully objects to instructing the jury on the risk vs. benefit test and elects to rely only on the consumer expectations test.

When it came time for the case to go to the jury, Ford requested the court to instruct the jury that:

> A product is defective in design when the foreseeable risks of harm posed by the product could have been reduced or avoided by the adoption of a *reasonable alternative design* and the omission of the alternative design renders the product not reasonably safe.

(14 JA 3206 (emphasis added); *see also* 14 JA 3205); and that:

> Whether a defect in a product's design causes the product to be not "reasonably safe" is determined through a process of *balancing the risks and utility* of the product as designed.

(14 JA 3207 (listing factors; emphasis added); *see* 13 JA 3175-76.) These instructions were based on the Restatement (Third) of Torts: Products Liability § 2 (Am. Law Inst. 1998), and state what is known as the "risk-utility" or "risk vs. benefit" test.

The court refused these instructions, and instructed the jury only on plaintiff's theory of the case under Restatement (Second) of Torts, as embodied in Nevada Pattern Jury Instruction 7PL4. (13 JA 3176.) According to those instructions:

> A product is defective in design if, as a result of its design, the product is unreasonably dangerous.

(14 JA 3372), and

> A product is unreasonably dangerous if it *failed to perform in the manner reasonably to be expected* in light of its nature and intended function, and was *more dangerous than would be contemplated by the ordinary user* having the ordinary knowledge available in the community.

(14 JA 3373 (emphases added)). This instruction describes the "consumer expectations" test.

Given that the case was going to the jury under the consumer expectations test, Ford proposed as a fallback that the court give two instructions to clarify plaintiff's burden: (1) that "[a] manufacturer is

not required to produce the safest possible design" (14 JA 3210) and (2) that "[t]he manufacturer of an automobile is not a guarantor that no one will get hurt using the automobile. What the manufacturer is required to do is to make a product which is free from defective and unreasonably dangerous conditions" (13 JA 3178; 14 JA 3209).

The district court agreed that Ford's clarifying instructions were correct statements of law, but nevertheless declined to give them. (13 JA 3179.)

D. Ford objects on misconduct grounds to plaintiff's counsel's misleading closing argument.

Plaintiff's counsel seized on the lack of clarity in what it means for the design of a complex product like a vehicle's roof to be "unreasonably dangerous" and thus "defective" under the consumer expectations test. Counsel argued to the jury that "If you think that a 5-foot-4 man should be able to walk away from a 27-mile-an-hour crash, you will return a verdict for Ms. Trejo." (14 JA 3348.) He also advanced other improper arguments, including:

- "If you think that a manufacturer should test its products before it sells them to the public, you will return a verdict . . . for Ms. Trejo." (*Id.*)
- "If you believe that rare is not an excuse and is not a good excuse to protect against known dangers, I believe that you will return a verdict for Ms. Trejo." (14 JA 3349.)
- "Now is your time to tell us what you think about the way Ford engineered this vehicle. Now is your time to make a difference. . . . America gets better because people stand up, and people speak for those that cannot speak for themselves." (14 JA 3350-51.)

Ford objected to these arguments as contrary to law because (a) Ford is not required to design a product that will protect against all injuries; (b) the issue of whether Ford was *negligent* in failing to test the Excursion was irrelevant to whether the Excursion was defective for strict liability purposes—the only liability theory going to the jury; and (c) jury nullification arguments are prohibited. (14 JA 3348–49, 3351); *Lioce v. Cohen*, 124 Nev. 1, 21, 174 P.3d 970, 983 (2008) (asking "the jury to 'send a message' about frivolous lawsuits" "was a clear attempt

at jury nullification"); *id.* ("Golden rule arguments [which ask jurors to place themselves in the position of one of the parties] are improper because they infect the jury's objectivity."). Each time, the court sustained the objection and admonished the jury to follow the instructions. (14 JA 3348-49, 3351.)

Undeterred, plaintiff's counsel closed with a final improper plea: "Ladies and gentlemen, you know what your job is. I have the utmost confidence that you will do it. I make no apologies for what I do. I stand up, and I speak . . . for those who cannot speak for themselves." (14 JA 3351.) Ford objected to this improper personal belief argument, and the objection was again sustained. (*Id.*); *see Lioce*, at 21-22, 174 P.3d at 983. The jury then went out to deliberate. (14 JA 3351-52.)

E. The jury awards plaintiff $4.5 million for Mr. Trejo's death. Ford appeals.

The jury returned its 7-1 verdict in favor of plaintiff, awarding her $4.5 million, to which the district court added $356,703.51 in costs. (14 JA 3387-88, 3392-93; 15 JA 3673.)

Ford sought post-trial relief. (15 JA 3533-67.) The district court agreed that plaintiff's theory of causation was nonsensical:

> [I am] inclined to agree, frankly, with the defense [be]cause it didn't make a lot of sense to me the theory that the roof crushed and then the deceased . . . was pinned and had that type of an injury because to me the force in order to crush that roof would cause the movement of the body. So the whole theory didn't make a lot of sense to me.

(15 JA 3629.) The court nonetheless denied Ford's motion. (15 JA 3673.) Ford appeals. (15 JA 3683-84.)

SUMMARY OF THE ARGUMENT

1. Ford is entitled to judgment because plaintiff presented no competent evidence that roof crush caused her husband's injuries. Plaintiff's hyperflexion and asphyxia causation theory rested on Peles's opinion, which assumed the entire roof deformation occurred during the *first* roll. But plaintiff's design expert, Herbst, defeated the foundation for that assumption, opining that at least some—and up to half—of the roof crush occurred as the Excursion rolled the *second* time. Peles's theory was thus physically impossible.

Plaintiff attempted to bridge the causation gap by relying on medical examiner Dr. Zumwalt's testimony that Mr. Trejo could have died from hyperflexion and asphyxia. But that testimony did nothing to explain how *roof deformation*, rather than the forces in the accident, could have caused such injuries. And Dr. Zumwalt's hyperflexion testimony never should have been admitted in the first place. A treating physician like Dr. Zumwalt may testify only to opinions formed *during treatment*. By revising the opinions he originally formed during treatment to support plaintiff's theory of the case, Dr. Zumwalt crossed the line from a treating physician to a retained expert. Because neither he nor his opinions were disclosed as required under the Nevada rules, his newly formed opinions should have been excluded.

2. Judgment for Ford is also warranted because plaintiff did not, and could not, obtain a finding of design defect under correct legal principles. The consumer expectations test on which plaintiff rested her claims applies where a product fails to live up to minimal safety expectations in situations familiar to an ordinary consumer. In those situations, a lay juror can readily understand the problems with the product. In this case, by contrast, the plaintiff claims a complex

machine that performed as intended in a situation unfamiliar to most consumers should have been designed differently. The appropriate test in such circumstances is risk vs. benefit, which requires the plaintiff to establish a reasonable alternative design that would avoid or reduce the *foreseeable* risks of injuries, considering the product's *overall* risks and utilities. Plaintiff pleaded this theory, but abandoned it at trial—and understandably so. Plaintiff's evidence could not satisfy that test. Her only design expert should never have been permitted to testify in the first place because his opinions were irrelevant and unreliable. And even if considered, his opinions did not establish a reasonable alternative design.

ARGUMENT

I. FORD IS ENTITLED TO JUDGMENT, OR AT LEAST A NEW TRIAL, BECAUSE PLAINTIFF FAILED TO PRESENT COMPETENT EVIDENCE THAT THE ROOF DESIGN CAUSED HER HUSBAND'S INJURIES.

A. Plaintiff's biomechanical expert's theory of causation lacked any factual foundation.

To prevail on a strict liability design defect claim, a plaintiff must prove "that his injury was *caused* by a defect in the product." *Shoshone Coca-Cola Bottling Co. v. Dolinski*, 82 Nev. 439, 443, 420 P.2d 855, 857-58 (1966) (emphasis in original); *id.* ("The concept of strict liability does not prove causation, nor does it trace cause to the defendant.") This Court reviews the jury's factual findings for substantial evidence. *Mackintosh v. California Fed. Sav. & Loan Ass'n*, 113 Nev. 393, 401, 935 P.2d 1154, 1159-60 (1997).

Peles, plaintiff's biomechanical expert, testified that Mr. Trejo's injury was caused by the roof partially caving in during the rollover, pinning him between the seat and the roof, and pushing his head down and forwards ("hyperflexing") until his neck broke and he asphyxiated.

(8 JA 1787.) Peles admitted that his theory depended on two assumptions: first, that the roof caved in a *minimum* of ten or eleven inches (8 JA 1879-80), and second, that all of that crush occurred during the *first* roll (8 JA 1734–35, 1876-78; *see also* 1 JA 39-40). Indeed, he admitted his theory depended on Mr. Trejo being "pinned" (unable to move), and acknowledged that an occupant's body would move and not "stay perfectly lined up" during a rollover because of the dynamic forces involved. (8 JA 1735, 1829–30.) Accordingly, if some of the crush happened after the first roll—as it indisputably did—Peles could not (and did not) explain how Mr. Trejo would have remained in the same position throughout the vehicle's rolling sequence. (*See* 8 JA 1883 (stating that he did not believe the hyperflexion happened during the second roll).)

Peles's first assumption was supported by the evidence: approximately ten and one-half inches of roof crush occurred above Mr. Trejo's head. (6 JA 1377.) But Peles's second assumption that the crush occurred all at once so as to set up a "pinning" scenario was disproven at trial by plaintiff's own design expert. Peles himself had no expertise that would allow him to express an opinion as to *when* the roof

crush occurred. That was Herbst's job. Herbst testified that the roof crush occurred during the course of at least *two* roof-to-ground contacts, with as much as half occurring on the second roll. (*See* 6 JA 1359.)

Thus, even considering plaintiff's evidence in its most favorable light, Mr. Trejo could not have sustained injury in the manner that Peles hypothesized. It is basic logic: for Peles's hyperflexion theory to work based on the occupant kinematics as he described them (8 JA 1734–35), a minimum of ten or eleven inches of crush was needed *during the first roll*. But it is undisputed that *some* of the ten or eleven inches of crush happened during the *second* roll. (*See* 6 JA 1359.) Even the district court commented that the hyperflexion theory made no sense. (15 JA 3629.) Peles's hyperflexion theory lacks foundation, and Ford is entitled to judgment because plaintiff's causation theory fails as a matter of law.

B. The medical examiner's undisclosed expert opinions did not fill the gap in plaintiff's causation evidence, and in any event, should have been excluded.

In denying Ford's post-trial motions, the district court apparently believed—incorrectly—that the jury could have relied on the testimony

of the medical examiner, Dr. Zumwalt, to fill the evidentiary gap in Peles's causation theory. (15 JA 3629-39.) Dr. Zumwalt's post-autopsy hyperflexion opinion does not establish causation, and the district court erred in even allowing the jury to consider it.

Plaintiff placed great weight on Dr. Zumwalt, emphasizing at opening and closing that he was an independent witness. (5 JA 1103 (he "doesn't get paid by anybody to come here and tell you his opinions"); 8 JA 1940 (Zumwalt is a "truth seeker"); 14 JA 3339-40 (Dr. Zumwalt is an unpaid witness).) Plaintiff told the jury that Dr. Zumwalt would, and did, make the causal link. (5 JA 1103 (opening: Zumwalt "will tell you that Mr. Rafael Trejo's neck was . . . bent and pinned by the roof crush"); 14 JA 3261 (closing: "Zumwalt told you that the spinal cord was stretched out and that it was an isolated single level neck injury consistent with bending from roof crush, not a diving theory."), 3280-81, 3339-40 (Zumwalt "definitely believes, clearly, unequivocally that this is a bending injury, not a compression or diving injury").)

But Dr. Zumwalt had no expertise in, or understanding of, roof deformation dynamics relevant to the *cause* of Mr. Trejo's injury.

Having said only that Mr. Trejo's injury was consistent with hyperflexion, Dr. Zumwalt did not distinguish between hyperflexion from the *roof design* as opposed to, for instance, the neck bending due to its inability to withstand the weight of Mr. Trejo's body as he dove head-first into the ground at the beginning of the first roll and came to rest in that position after the second roll.

Dr. Zumwalt's hyperflexion testimony fails to bridge plaintiff's causation gap for a second reason: the jury never should have heard it. "Nevada Rule of Civil Procedure (NRCP) 16.1(a)(2) requires each party to provide a written disclosure of their experts *and* the contents of those experts' testimonies, including the information each expert considered in forming an opinion, well in advance of trial." *Sanders v. Sears–Page*, 131 Nev. Adv. Op. 50, 354 P.3d 201, 212 (Nev. App. 2015). This rule applies to retained medical experts and "prevent[s] physicians from offering undisclosed opinions based upon evidence that had not been duly admitted or disclosed." *Id.* (citing *FCH1, LLC v. Rodriguez*, 130 Nev. Adv. Op. 46, 335 P.3d 183, 189 (2014).) When a treating physician's opinion exceeds the scope of the opinions formed during the course of treatment, that physician is testifying as a retained expert.

The proponent of those opinions must then comply with Rule 16.1(a)(2). *FCH1*, 130 Nev. Adv. Op. at __, 335 P.3d at 189.

Here, Dr. Zumwalt's 2009 autopsy records contain two critical opinions. First, Dr. Zumwalt opined that "there was evidence of a blunt trauma to the head with an impact to the top and back of the head, which resulted in a fracture of the lower cervical spine." (8 JA 1946; 9 JA 1978, 1980; 16 JA 3724, 3737.) Second, he opined that death occurred in "seconds." (9 JA 1978; 16 JA 3737.)

Five years after performing Mr. Trejo's autopsy—and after a meeting with plaintiff's counsel—Dr. Zumwalt revised both opinions. (2 JA 265-66.) At trial, he opined that Mr. Trejo could have suffered a hyperflexion injury and died from complications including asphyxia, even though asphyxiation takes "minutes." (8 JA 1953-57, 9 JA 1963-64, 1981, 1998.)

The district court did not offer a consistent view as to why this testimony was admissible. The district court initially permitted Dr. Zumwalt to testify because it found him credible in his belief that his opinions had not changed since the autopsy. (8 JA 1932.) But later the court found the opposite—that Dr. Zumwalt's asphyxiation opinions did

seem to post-date the autopsy. (*See* 9 JA 2061; *see also* 9 JA 1963-64 (Dr. Zumwalt explaining he did not recall precisely what he was thinking during the original autopsy).)

By offering new (and inconsistent) opinions formed after the autopsy, Dr. Zumwalt was transformed from a fact witness into a retained forensic pathology expert. Plaintiff was required to disclose Dr. Zumwalt under Nevada Rule of Civil Procedure 16.1(a)(2), but did not. (*See* 1 JA 30-34, 60-61.) The district court abused its discretion in permitting Dr. Zumwalt to offer undisclosed expert opinions about hyperflexion and asphyxia that post-dated and could not be reconciled with the opinions he had reached during treatment, as set forth in his official autopsy records. *FCH1,* 130 Nev. Adv. Op. at __, 335 P.3d at 190. The district court also should not have considered Dr. Zumwalt's hyperflexion and asphyxia opinions to buttress plaintiff's biomechanic's unsupported opinions. In evaluating the sufficiency of plaintiff's causation evidence, this Court should disregard Dr. Zumwalt's inadmissible trial opinions and instead consider the opinions he formed during the autopsy—that Mr. Trejo died in "seconds" from a cervical facture following a blunt force trauma to the head.

Those opinions were consistent with the medical and scientific evidence presented by Ford, which proved that occupants in rollovers experience "diving" forces that cause blunt-force neck injury, before and irrespective of, any roof deformation.[1] (*See* 10 JA 2400–02, 2424, 2428, 2439–41, 2452; 11 JA 2575, 2590–92, 2618–19; 12 JA 2741, 2755; 13 JA 2988, 3000, 3005, 3011–22, 3085–87.)

In light of the evidence *properly* before the district court, the evidence is insufficient as a matter of law to establish the roof caused Mr. Trejo's death. This Court should reverse and hold that Ford is entitled to judgment.

At the very least, the Court should order a new trial. As evidenced by the district court's reliance on Dr. Zumwalt's testimony to deny Ford's post-trial motion, the erroneous admission of Dr. Zumwalt's undisclosed hyperflexion and asphyxia opinions was prejudicial. *See Hallmark v. Eldridge*, 124 Nev. 492, 505, 189 P.3d 646, 655 (2008).

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[1] Even properly working seatbelts cannot prevent the body from diving into the roof as a vehicle inverts—which happens regardless of roof crush. (12 JA 2857, 2910.) Restraint systems designed to inflexibly anchor a person to the seat would be fatal in front-end collisions. (12 JA 2945.) Plaintiff did not allege here that Mr. Trejo's seatbelt was defective or that it caused his injuries.

Absent Dr. Zumwalt's revised trial testimony, the jury might have concluded that Mr. Trejo suffered a diving injury that had nothing to do with roof deformation.

II. FORD IS ENTITLED TO JUDGMENT FOR THE INDEPENDENT REASON THAT THE CONSUMER EXPECTATIONS TEST IS INAPPLICABLE AS A MATTER OF LAW.

A. The correct test for "defect" in this case is the risk vs. benefit test.

A strict products liability claim requires proof of a defect that rendered the product unreasonably dangerous. *Ginnis v. Mapes Hotel Corp.*, 86 Nev. 408, 413, 470 P.2d 135, 138 (1970). This case presents an unanswered question of law concerning the correct test for defect in cases in which a plaintiff claims a complex product *that operated as designed* is nonetheless defective because of the omission of an alternative design. Ford argued a risk vs. benefit analysis is required in such cases. Under that analysis, as explained in the Restatement (Third) of Torts: Products Liability § 2, a product is defective in design "if the foreseeable risks of harm presented by the product could have been reduced by the adoption of a reasonable, safer design." *Id.*; (*see* 14

JA 3205-06). The reasonability of an alternative design is determined by evaluating the risks and benefits of the design.

Plaintiff, on the other hand, invoked the "consumer expectations" test embodied in Nevada Jury Instruction 7PL4 and this Court's decision in *Ginnis*, 86 Nev. at 413, 470 P.2d at 138. Under that test, a product is defective if it "failed to perform in the manner reasonably to be expected in light of its nature and intended function, and was more dangerous than would be contemplated by the ordinary user having the ordinary knowledge available in the community." (14 JA 3373.) The district court agreed with plaintiff that the pattern instruction on the consumer expectations test properly set forth the law for the jury. (14 JA 3373.)

This Court considers "de novo whether a particular instruction . . . comprises a correct statement of the law." *Cortinas v. State*, 124 Nev. 1013, 1019, 195 P.3d 315, 319 (2008). This Court should now hold that in complex design defect cases (especially ones that turn exclusively on expert testimony) like this one, the proper jury instruction is the Third Restatement risk vs. benefit test.

Applying a risk vs. benefit analysis is appropriate because it is an objective inquiry that a manufacturer can actually perform when designing its product. *See Branham v. Ford Motor Co.*, 390 S.C. 203, 222, 701 S.E.2d 5, 15 (2010) ("The risk-utility test provides objective factors for a trier of fact to analyze when presented with a challenge to a manufacturer's design."). Indeed, this Court has recognized that "[a] major policy behind holding manufacturers strictly liable for failing to produce crashworthy vehicles is to encourage them to do all they *reasonably* can do to design a vehicle which will protect a driver in an accident." *See Andrews v. Harley Davidson, Inc.*, 106 Nev. 533, 537, 796 P.2d 1092, 1095 (1990) (emphasis added); *see also Robinson v. G.G.C., Inc.*, 107 Nev. 135, 139, 808 P.2d 522, 524 (1991) (endorsing the "compound goal of encouraging manufacturers to make products safe without unduly burdening them with excessive liability without fault"). That policy goal can be achieved only if automakers are held to an objective standard of designing products to perform safely overall in light of the panoply of foreseeable risks to the general public—as opposed to a subjective, post-hoc standard that would account for one particular plaintiff's injury, but not necessarily the larger safety

concerns of the consuming public. Nevada public policy therefore demands that the standard for strict liability design defect in crashworthiness cases be based on whether, in light of the risks and benefits of the design as revealed by engineering and safety research, the automaker should adopt a different design to improve overall safety—the standard reflected in Ford's proposed risk vs. benefit instructions.

The risk vs. benefit test is particularly required in design defect cases where the pertinent design issues depend on expert testimony about the relative merits of the design, because only the risk vs. benefit test correctly directs the jury *how* to consider and evaluate that expert testimony. Indeed, here, *both* sides relied *extensively* and *exclusively* on expert testimony about whether the roof should have been reinforced as plaintiff's expert proposed. (*See* 15 JA 3586 (plaintiff admitting "[t]his was a highly expert-intensive case").) In other words, this case was tried as a "battle of the experts." To declare the victor, the jury needed to be instructed, as Ford requested, to decide which experts had the better argument on the reasonably safe design. The district court, however, believed it could not depart from Nevada Jury Instruction

7PL4, and thus declined to give Ford's risk vs. benefit instructions. (13 JA 3176.)

This Court should now clarify that Nevada Jury Instruction 7PL4, while applicable in certain cases, should give way to the risk vs. benefit test in complex design defect cases, like this one.

This Court has previously recognized that balancing the risks and benefits of the proposed alternative designs is an analytically necessary component of establishing design defectiveness. *See Robinson*, 107 Nev. at 139, 808 P.2d at 524 (endorsing view that where the alleged defect is the failure to adopt a safety device, "factfinders *must* consider existing technology and commercial feasibility when evaluating whether a product is defective") (emphasis added); *see also id.* at 140, 808 P.2d at 525 ("This court has recognized that alternative safer designs are a factor in determining the existence of a design defect."); *McCourt v. J.C. Penney Co.*, 103 Nev. 103, 104, 734 P.2d 696, 698 (1987) ("Alternative design is one factor for the jury to consider when evaluating whether a

product is unreasonably dangerous.").[2] This Court should now hold that in complex design defect cases, the consumer expectations test fails to properly require the fact finder to consider whether an alternative design would have been safer, and thus that the jury should be instructed based on the risk vs. benefit test as the *controlling* inquiry.

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[2] *See also Eads v. R.D. Werner Co.*, 109 Nev. 113, 115, 847 P.2d 1370, 1372 (1993) (ladder might be defective despite warnings "if there was a commercially feasible design available when it was manufactured"); *Fyssakis v. Knight Equip. Corp.*, 108 Nev. 212, 214, 826 P.2d 570, 572 (1992) ("Under Nevada law, evidence that a product lacked adequate safety features or that a safer alternative design was feasible at the time of manufacturer will support a strict liabilities claim."); *e.g.*, *Price v. Blaine Kern Artista, Inc.*, 111 Nev. 515, 521–22, 893 P.2d 367, 371 (1995) (plaintiff defeated summary judgment by arguing that mask should have included a safety harness); *Jacobson v. Manfredi by Manfredi*, 100 Nev. 226, 231–32, 679 P.2d 251, 254–55 (1984) (failure to use more child-proof bottle); *McCourt*, 103 Nev. at 102-03, 734 P.2d at 698 (failure to use non-flammable fabric); *see generally* Aaron D. Twerski & James A. Henderson, Jr., *Manufacturers' Liability for Defective Product Designs: The Triumph of Risk-Utility*, 74 Brook. L. Rev. 1061, 1094-95 (2009) (explaining that although Nevada cases have said that reasonable alternative design is just one factor to consider, no plaintiff has reached a jury in a design defect case without showing a reasonable alternative design—indeed, as a practical matter, that is the "controlling" consideration); *see also Allison v. Merck & Co.*, 110 Nev. 762, 789, 878 P.2d 948, 965 (1994) (Young, J., and Steffen, J., concurring in part and dissenting in part) ("I believe that a better way is to apply a balancing test weighing the benefits of a particular drug against the risks inherent in use of the drug.").

The risk vs. benefit test that Ford proposed is the approach followed in many other jurisdictions.[3] And the risk vs. benefit test that Ford proposed is consistent with, and would be a sound extension of, this Court's precedent, placing Nevada squarely within the legal mainstream.

B. The consumer expectations test is not appropriate for design defect cases arising out of the performance of complex products in circumstances unfamiliar to ordinary consumers.

Not only does the risk vs. benefit instruction properly direct the jury's inquiry in complex design defect cases like this one, but the

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[3] *See, e.g.*, *Branham*, 390 S.C. at 220, 701 S.E.2d at 14 ("While the consumer expectations test fits well in manufacturing defect cases, we do agree with Ford that the test is ill-suited in design defect cases. We hold today that the exclusive test in a products liability design case is the risk-utility test with its requirement of showing a feasible alternative design."); *Wright v. Brooke Grp. Ltd.*, 652 N.W.2d 159, 169 (Iowa 2002) (adopting Third Restatement risk vs. utility approach for design defect cases); *Rix v. Gen. Motors Corp.*, 222 Mont. 318, 328, 723 P.2d 195, 201 (1986) (adopting risk vs. benefit approach to alternative design product liability cases); *Dart v. Wiebe Mfg., Inc.*, 147 Ariz. 242, 245, 709 P.2d 876, 879 (1985) (risk vs. benefit test is the appropriate test for design defects when consumers would not know what to expect); *Turner v. Gen. Motors Corp.*, 584 S.W.2d 844, 851 (Tex. 1979) (in crashworthiness case, district court was correct to give only a risk vs. benefit instruction).

consumer expectations instructions misdirect the jury's inquiry, and thus should *not* be given.

The consumer expectations test embodied in Nevada Jury Instruction 7PL4 has its origins in section 402A of the Restatement (Second) of Torts (Am. Law Inst. 1965). *See Ginnis*, 86 Nev. at 413, 470 P.2d at 138 (citing *Dunham v. Vaughan & Bushnell Mfg. Co.*, 247 N.E.2d 401, 403, 42 Ill.2d 339, 342–43 (Ill. 1969) (citing Second Restatement)). When section 402A was drafted, products liability was in its infancy, and the reporters were focused on cases involving *manufacturing* defects or other manifest failures of the product to live up to minimal safety expectations held by everybody familiar with the product's function. Douglas A. Kysar, *The Expectations of Consumers*, 103 Colum. L. Rev. 1700, 1712-14 (2003). When this Court adopted the consumer expectations test, it did so in the context of those cases. *See Shoshone*, 82 Nev. 439, 420 P.2d 855 (soda containing mouse parts); *Ginnis*, 86 Nev. at 413, 470 P.2d 138 (malfunctioning elevator door).

Nearly all of this Court's cases since then have similarly involved obvious product malfunctions or breaks.[4]

For those kinds of cases, jurors can understand if a product malfunctions in a way that makes it surprisingly and gratuitously dangerous during normal use, and thus the consumer expectations test may be appropriate. *See* Kysar*, supra*, at 1713–14.

But the same is *not* true of cases involving products that the plaintiff alleges are "defective" only in the sense that, even though they performed as they were supposed to, they could have been designed to be even safer. *See* Kysar*, supra*, at 1712-13; Twerski & Henderson, *supra*, at 1062. In contrast to product-malfunction cases, when a plaintiff's theory of design defect is beyond the experience of ordinary

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[4] *See Worrell v. Barnes*, 87 Nev. 204, 484 P.2d 573 (1971) (leaky water heater); *Gen. Elec. Co. v. Bush*, 88 Nev. 360, 498 P.2d 366 (1972) (failing bolt); *Chavez v. Robberson Steel Co.*, 94 Nev. 597, 584 P.2d 159 (1978) (collapsing steel beams); *Stackiewicz v. Nissan Motor Corp.*, 100 Nev. 443, 686 P.2d 925 (1984) (steering wheel that would not turn); *Town & Country Elec. Co. v. Hawke*, 100 Nev. 701, 692 P.2d 490 (1984) (falling light fixture); *Jeep Corp. v. Murray*, 101 Nev. 640, 708 P.2d 297 (1985) (Jeep with propensity to roll over in normal driving conditions); *Van Duzer v. Shoshone Coca Cola Bottling Co.*, 103 Nev. 383, 741 P.2d 811 (1987) (exploding soda bottle); *Andrews*, 106 Nev. 533, 796 P.2d 1092 (detaching gas tank); *Maduike v. Agency Rent–A–Car*, 114 Nev. 1, 953 P.2d 24 (1998) (malfunctioning brakes); *Krause Inc. v. Little*, 117 Nev. 929, 34 P.3d 566 (2001) (collapsing ladder).

consumers and calls for technical expert testimony about the design, the consumer expectations test was never intended to govern. *See Brown v. Raymond Corp.*, 432 F.3d 640, 647 (6th Cir. 2005); *Dart,* 147 Ariz. at 244, 709 P.2d at 878.

In complex design cases like structural crashworthiness cases, there are several reasons the consumer expectations test fails to properly direct the jury's analysis. This case illustrates those reasons.

First, as explained by the reporters of the Third Restatement, consumers do not have ascertainable "expectations" about vehicle performance under unfamiliar circumstances they do not commonly experience. *See* Twerski & Henderson, *supra*, at 1100-02. Thus, ordinary consumers have no basis for forming a conclusion one way or the other about the point at which they will no longer be safe in a serious accident. They cannot know how many rolls they can expect to experience without injury, just as they cannot know at what speed a head-on collision will cause injury.

Second, in design defect cases, the consumer expectations test tends to obscure the important distinction between "defect" and "causation"; "Plaintiffs need only allege disappointment of expectations

and injury" to satisfy the test. Twerski & Henderson, *supra*, at 1100–02. In other words, use of the consumer expectations test in cases where the product functions *as intended* (rather than malfunctions) invites the jury to find for the plaintiff simply because an injury causally linked to use of the product was unexpected.

That is exactly what happened here. Plaintiff's counsel argued in closing, "If you think that a 5-foot-4 man should be able to walk away from a 27-mile-an-hour crash, you will return a verdict for Ms. Trejo." (14 JA 3348.) That is not the law. A manufacturer is not an insurer against all injuries; it has a duty only to make products that are reasonably safe. *See Ward v. Ford Motor Co.*, 99 Nev. 47, 48 n.1, 657 P.2d 95, 95 n.1 (1983); *Weakley v. Fishbach & Moore, Inc.*, 515 F.2d 1260, 1267-68 (5th Cir. 1975); (14 JA 3376 (instructing the jury that "[t]he mere fact that there was an accident and that someone was injured does not of itself prove that the product was unreasonably dangerous")). But guided only by the consumer expectations instruction (especially without Ford's clarifying instructions), the jury accepted that argument.

Third, when a complex machine designed to function in many use modes is involved, the consumer expectations test ignores that "the product as designed may provide greater *overall* safety" than the plaintiff's proposed design that allegedly would have avoided the *particular* plaintiff's injury. Twerski & Henderson, *supra*, at 1100–02. Here again, plaintiff's counsel capitalized on the consumer expectations test to argue in closing that the jury should find for plaintiff if it believed the vehicle could have been made "safer" for *this* "rare" accident. (14 JA 3349.) Again, that is not the law. A manufacturer is not the guarantor of everyone's safety under all circumstances; it must make products that are *reasonably* safe for the consuming public. *See Ward*, 99 Nev. at 48 n.1, 657 P.2d at 95 n.1.

Lewis v. Sea Ray Boats, Inc., 119 Nev. 100, 102, 65 P.3d 245, 246 (2003), illustrates the inadvisability of relying on consumer expectations-type instructions in a case that depends on expert analysis of matters beyond an ordinary consumer's experience. There, the plaintiffs brought a strict liability claim alleging the defendant failed adequately to warn boat users about the risk of carbon monoxide poisoning from the boat's generator. Various other warnings concerning

carbon monoxide poisoning had been given, and the critical issue at trial was whether those warnings were adequate to apprise boat users of the specific danger posed by the generator. *Id.* at 103-04, 108, 65 P.3d at 247, 251. The district court instructed the jury to evaluate the adequacy of the warnings based on a variant of the consumer expectations test, considering "the language used and the impression that such language is calculated to make upon the mind of the average user of the product." *Id.* at 105, 65 P.3d at 248.

This Court held those instructions were erroneous because they "provided very little in the way of guidance," other than to generally direct the jury that it should ascertain "the 'impression' that the warnings language 'is calculated to make upon the mind of the average user of the product,' and that the jury should use its common sense in resolving the issue." *Id.* at 108, 65 P.3d at 250. Such general instructions "*left lay jurors*, persons in much the same position as the users of the product as issue, *to search their imaginations to test the adequacy of the warnings*." *Id.* (emphases added). Further, "*given that experts testified in this case* to the nature and quality of the warnings that were given and their supposed behavioral impact, *the jurors were*

entitled to more specific guidance as to the law governing the duty to warn in connection with consumer products." *Id.* (emphases added).

Here, like the "average person" instruction in *Lewis*, the consumer expectations instructions left the jury with no guidance on what to do with the technically complex expert testimony concerning the relative merits of roof designs. Had the jury been instructed with Ford's proposed risk vs. benefit instructions, it would not have been misled by plaintiff's counsel's argument that Mr. Trejo's injury was all that mattered. Instead, the jury would have been instructed to evaluate the evidence that was actually presented at trial on the question of defect, including Herbst's testimony about his proposed stronger roof design and all of Ford's expert evidence that a *stronger* roof would not have equated to a *safer* roof.

Specifically, Ford presented extensive engineering testimony from Michael Leigh, who has performed crash testing and safety analysis for Ford for twenty years. (11 JA 2702–03, 2708–09; 12 JA 2711-13.) Ford also presented the opinions of Jeffrey Croteau, an independent mechanical engineering expert who helped develop the CRIS test, a

testing apparatus specifically designed to measure occupant kinematics in rollover collisions. (12 JA 2947; 13 JA 2980–86.)

Leigh and Croteau's testimony established the inefficacy of Herbst's proposed alternative design. In answer to Herbst's dummy-less drop tests, for instance, Leigh explained that tests conducted without dummies provide no information about *safety*, which requires analysis of how vehicle damage during an accident is experienced by the vehicle's occupants. (11 JA 2707–08 ("Say you have a production roof versus a roll-cage roof, unless you have a dummy in the vehicle when you run the test, you don't know if the change in the roof strength makes a difference as far as what the dummy experiences."); 12 JA 2732.)

Further, Leigh and Croteau explained that, reinforcing the roof makes no difference. According to decades of automotive safety research and testing designed to measure the relationship between roof crush and injury, cervical injuries like Mr. Trejo's happen when rotational forces cause the occupant to dive head-first into the ground as the vehicle inverts. (*E.g.*, 11 JA 2537-44.) This inversion occurs

before any significant roof crush even happens.[5] Ford's experts further testified that roofs have many functions, and are designed based on numerous factors, including the need to protect against a variety of different possible injuries. (12 JA 2735-37; 13 JA 3136-39.) Indeed, roofs are *designed to deform* in a rollover crash to some degree, to dissipate crash energy. (12 JA 2745; *see also* 13 JA 3044, 3047.)

With a fully rigidized roof, the forces acting on the vehicle during a rollover will not be absorbed by the roof; but those forces have to go

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[5] Extensive automotive safety research and testing demonstrates cervical injuries like Mr. Trejo's are *not* a function of roof performance and that increasing roof strength does not affect the rollover injuries suffered by vehicle occupants. (12 JA 2740–44, 2750–51, 2754–55, 2822–24, 2832–33; 13 JA 3086–87, 3136; 19 JA 4361–88, 4407–44, 4469.) Research on the Subaru Forester, which has a roof even more rigid than that advocated by Herbst, confirmed that even with an extremely rigid roof, the occupants still experience injurious neck loads almost instantly. (13 JA 2962–63, 3024, 3042, 3047–48, 3086.) Croteau's CRIS testing shows that instrumented dummies measure the same neck loads in accidents involving production roofs as they do in accidents involving roll cages that prevent roof deformation—and with production roofs, they experience those loads *before* any significant roof deformation occurs. (13 JA 2987–89, 3000, 3005, 3009, 3017; *see* 19 JA 4470–77.) Likewise, drop testing of vehicles using instrumented dummies (unlike Herbst's tests) measure the same injurious neck loads in accidents that occur in vehicles with roll cages that prevent roof deformation as those with production roofs. (*See* 12 JA 2740–44, 2822–24, 2833; 13 JA 3000, 3009, 3167.) And those injurious neck loads occur immediately upon roof-to-ground contact, before any roof intrusion happens. (*See* 12 JA 2754–55; 13 JA 2976, 3005, 3017, 3082–87, 3161–62; 19 JA 4361–88, 4407–44, 4470–77.)

somewhere, so they may get transferred to the occupants. (12 JA 2745.) Even if rigidizing the roof might, in retrospect, make it better for one occupant in a particular crash, that might come at the cost of making the vehicle more dangerous for other occupants. (12 JA 2745-46.) Thus, Ford could not reasonably reinforce the roof as Herbst proposed without evaluating the impact of those design changes on the vehicle's *overall* performance. (*See* 13 JA 3139.)

Ford's proposed instructions asking the jury to evaluate whether the roof was unreasonably dangerous due to the omission of a reasonable alternative design, in light of the risks and benefits of the design, were the only mechanism for directing the jury to evaluate the role of these competing design considerations. The consumer expectations test misdirected the jury from that analysis, resulting in a finding that the Excursion's roof was "unreasonably dangerous" despite overwhelming evidence that redesigning the roof as plaintiff proposed would have had zero safety benefits and potential safety drawbacks.

C. Once the proper risk vs. benefit theory is applied, Ford is entitled to judgment.

Plaintiff's only evidence in support of her defect theory came from Herbst. Herbst's testimony should never have been admitted, and without it, a properly instructed jury could never have found in plaintiff's favor.

"This court reviews a district court's decision to allow expert testimony for abuse of discretion." *Hallmark,* 124 Nev. at 498, 189 P.3d at 650. Expert testimony is admissible only if (1) the witness is qualified, (2) the testimony will assist the jury, and (3) the testimony is limited to the scope of the witness's expertise. NRS 50.275; *Brant v. State*, 130 Nev. Adv. Op. 97, 340 P.3d 576, 579 (2014). Testimony meets the "assistance" requirement only if it is relevant and results from reliable methodology. *Brant*, 130 Nev. Adv. Op. at __, 340 P.3d at 579. In the specific context of evaluating the methodology of accident reconstruction experiments, the trial court must consider whether the conditions of the experiment were similar to the accident conditions. *See Hallmark*, 124 Nev. at 501–02, 189 P.3d at 652.

The district court here abused its discretion in admitting Herbst's opinions that the roof was not crashworthy. This opinion was neither relevant nor reliable.

First, Herbst based his opinions on drop test experiments that were not performed under conditions similar to those in the accident. (*See* 1 JA 203; 5 JA 1016-17.) Industry groups and manufacturers no longer use drop tests; the science shows they have no relation to dynamic accident forces. (1 JA 78-79; 6 JA 1386-89); *see Rodriguez v. Hyundai Motor Co.*, 944 S.W.2d 757, 767 (Tex. Ct. App. 1997) (drop test results excluded because of the "obvious discrepancies between the test and the accident"), *rev'd on other grounds*, 995 S.W.2d 661 (Tex. 1999).

When admitting Herbst's testimony, the district court "assume[d] . . .[plaintiff was] going to have the foundation laid and all of that as to why this is similar." (5 JA 1022.) The district court's assumption was not borne out at trial. Herbst admitted that, in a severe accident, a non-defective roof could crush as much as the Excursion's roof did. (6 JA 1234.) Herbst's opinion that the roof performed poorly in the Trejo's accident thus depended on his opinion that the multiple-roll accident was *not* severe. (1 JA 172; 2 JA 296-97.)

But Herbst admitted that the drop tests did not replicate the accident forces. (6 JA 1361-62; *see also* 1 JA 87-88; 2 JA 279, 302 ("It is not important to replicate the accident conditions.").) Indeed, even plaintiff's own biomechanical expert criticized drop test experimentation, explaining that "just dropping it" actually "has nothing to do with what happens in an accident." (8 JA 1799.)

Because Herbst's drop tests did not replicate the accident forces, he could not properly rely on them to determine "the amount of energy that went into crushing the accident vehicle roof *during the accident*." (1 JA 172; 2 JA 296, 299 (emphasis added); 6 JA 1263, 1268–70; *see also* 5 JA 1012-15); *see Hallmark*, 124 Nev. at 501–02, 189 P.3d at 652. His opinion therefore should have been excluded.

Second, even if drop tests could be useful, Herbst's drop tests provided no competent evidence on the benefits on his *actual* proposed alternative design—a design he did not test at all. *See Brant*, 130 Nev. Adv. Op. ___, 340 P.3d at 580 (noting that the reliability inquiry considers whether the proffered opinion is testable and has been tested). Herbst tested a vehicle reinforced with 150 pounds of foam and steel, but opined about a vehicle reinforced with only thirty-five to

seventy pounds of material. (6 JA 1311-13, 1382-85.) His opinion should have been excluded for this reason, as well.

Third, even if the drop test experiments had replicated the accident forces' impact *on the roof*, Herbst failed to account for the impact on *the occupants*. The concepts of "safety" and "crashworthiness" require analysis of the risks of injury to the occupants, not merely the risk of damage to the vehicle. To provide relevant and reliable information about the crashworthiness of the roof during a rollover, then, an expert must look at the relationship between roof crush and injury. (11 JA 2707–08; 12 JA 2732.) Because Herbst conducted his drop tests *without dummies*, he had no basis for his assumption that a roof that deforms less is "safer" for the occupants inside, especially not in a multiple rollover accident like this one. *See Hallmark*, 124 Nev. at 502, 189 P.3d at 652 (expert testimony based on assumption, speculation, or conjecture is incapable of assisting the jury).

Simply put, after a vehicle meets a threshold of structural integrity, "stronger" does not necessarily mean "safer." Herbst provided no scientific evidence to back up his assumption that the two were

synonymous here. Herbst's testimony established that a reinforced roof deforms less in a one-foot drop test. That testimony is useless in answering the only relevant question to which his testimony related: whether the roof as designed was, on balance, unreasonably dangerous to occupants. There being no foundation for Herbst's opinions related to whether the roof was not reasonably safe, the district court abused its discretion in admitting them.

Once Herbst's inadmissible testimony is disregarded, plaintiff has *no* evidence that the roof was defective simply because it deformed in this accident. All the evidence is to the contrary. It is undisputed that the roof here could support 34,000 pounds without deforming more than five or six inches (13 JA 3060; 19 JA 4448) and that even non-defective roofs can deform as much as the Excursion's did in a serious accident (6 JA 1234). The roof here did not simply disintegrate in a minor collision; it deformed ten to eleven inches during a serious accident, over the course of at least *two* impacts. There is no competent evidence that the roof was not reasonably safe as designed.

Moreover, even if Herbst's testimony were admissible, it is insufficient as a matter of law to satisfy the risk vs. benefit test.

Because Herbst's tests did not replicate the accident forces and Herbst neither tested his proposed alternative nor used dummies to measure the relationship between roof crush and injury, Herbst's opinions were not probative of whether his proposed reinforced roof design would have actually had a safety benefit (i.e., would have reduced the risk of foreseeable injuries in rollover crashes).

Further, Herbst provided no testimony concerning the potential risks of a reinforced roof. The undisputed evidence established that roofs have many different functions, including the need to protect against many possible injuries (13 JA 3136-37), and so a reinforced design would have to be tested in many ways before that design could be reasonably adopted (12 JA 2735-37). Also, making the roof *too* rigid could make the vehicle more dangerous. *See supra* pp. 43-44. Herbst, however, did not analyze how either the fully rigid roof he tested in his drop tests, or the less-reinforced version he opined Ford should have adopted, would have performed in all of the use modes for which Ford needs to test to ensure overall safety. *See Francis v. Clark Equip. Co.*, 993 F.2d 545, 552 (6th Cir. 1993) (plaintiff's prima facie case under risk vs. benefit requires showing the alternative design would be feasible

and safer overall, not just in the one accident at issue); *Owens v. Allis-Chalmers Corp.*, 414 Mich. 413, 430, 326 N.W.2d 372, 379 (1982) (same); *Wilson v. Piper Aircraft Corp.*, 282 Or. 61, 69, 577 P.2d 1322, 1327 (1978) (same).

In light of (a) years of automotive safety testing and research showing a reinforced roof would have had no scientifically demonstrable ability to prevent foreseeable injuries, *see supra* pp. 42-43; and (b) the unknown consequences of Herbst's proposed alternative design in other use modes, Herbst's testimony did *not* establish that the omission of a more rigid roof made the Excursion *unreasonably dangerous*. No reasonable jury, properly instructed to consider the risks and benefits of the competing complex design choices, could find based on Herbst's testimony that plaintiff established a reasonable alternative design.

Ford is therefore entitled to judgment on plaintiff's strict liability design defect claim, with Herbst's testimony or without it. *See Pink v. Busch*, 100 Nev. 684, 691, 691 P.2d 456, 461 (1984) ("Upon reversal, where the material facts have been fully developed at trial and are undisputed such that the issues remaining are legal rather than factual, we will render final judgment or will remand the case to the

lower court with directions to enter judgment in accordance with the opinion or with specific directions.").

In fact, having initially pleaded the elements of a risk vs. benefit theory (*see* 1 JA 10), plaintiff ultimately objected to instructing the jury under that test, choosing to rely only on a consumer expectations theory (*see* 13 JA 3174–75; 15 JA 3589). The judgment cannot be affirmed on a theory that plaintiff disclaimed at trial, and on which plaintiff did not seek or obtain any finding from the jury. *See, e.g., Schuck v. Signature Flight Support of Nev., Inc.*, 126 Nev. Adv. Op. 42, 245 P.3d 542, 545 (2010) (parties may not reinvent their theory on appeal); *Carlton v. Manuel,* 64 Nev. 570, 577, 187 P.2d 558, 561 (1947) (theory abandoned at trial cannot be considered on appeal); *see also Chiarella v. United States*, 445 U.S. 222, 236 (1980) (a court cannot affirm on the basis of a theory not presented to the jury). Having proceeded on a legally inapplicable defect theory (consumer expectations), and affirmatively opposed the proper defect theory (risk vs. benefit), plaintiff should be bound by her trial strategy, and judgment should be entered for Ford.

CONCLUSION

For the foregoing reasons, Ford respectfully requests that this Court reverse the jury's verdict and the judge's costs award, and direct entry of judgment for Ford. Alternatively, at the very least, the Court should order a new trial at which Dr. Zumwalt is permitted only to testify to his opinions formed during the autopsy.

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HORVITZ & LEVY LLP
LISA PERROCHET (*Pro Hac Vice*)
EMILY V. CUATTO (*Pro Hac Vice*)
SNELL & WILMER L.L.P.
VAUGHN A. CRAWFORD (SBN 7665)
JAY J. SCHUTTERT (SBN 8656)
MORGAN T. PETRELLI (SBN 13221)

By: s/Emily V. Cuatto
Emily V. Cuatto
Horvitz & Levy LLP
15760 Ventura Blvd., 18th Floor
Encino, California 91436

By: s/Jay J. Schuttert
Jay J. Schuttert
Snell & Wilmer L.L.P.
3883 Howard Hughes Parkway, Suite 1100
Las Vegas, Nevada 89169

Attorneys for Appellant
FORD MOTOR COMPANY

CERTIFICATE OF COMPLIANCE
(NRAP 28.2)

1. I hereby certify that this brief complies with the formatting requirements of NRAP 32(a)(4), the typeface requirements of NRAP 32(a)(5) and the type style requirements of NRAP 32(a)(6) because:

[×] This brief has been prepared in a proportionally spaced typeface using MS-Word in 14-point Century Schoolbook font type; or

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3. Finally, I hereby certify that I have read this appellate brief, and to the best of my knowledge, information, and belief, it is not frivolous or interposed for any improper purpose. I further certify that this brief complies with all applicable Nevada Rules of Appellate Procedure, in particular NRAP 28(e)(1), which requires every assertion in the brief regarding matters in the record to be supported by a reference to the page and volume number, if any, of the transcript or appendix where the matter relied on is to be found. I understand that I may be subject to sanctions in

the event that the accompanying brief is not in conformity with the requirements of the Nevada Rules of Appellate Procedure.

Dated: November 9, 2015

HORVITZ & LEVY LLP
LISA PERROCHET (*Pro Hac Vice*)
EMILY V. CUATTO (*Pro Hac Vice*)
SNELL & WILMER L.L.P.
VAUGHN A. CRAWFORD (SBN 7665)
JAY J. SCHUTTERT (SBN 8656)
MORGAN T. PETRELLI (SBN 13221)

By: s/Jay J. Schuttert
Jay J. Schuttert
Snell & Wilmer L.L.P.
3883 Howard Hughes Parkway, Suite 1100
Las Vegas, Nevada 89169

Attorneys for Appellant
FORD MOTOR COMPANY

PROOF OF SERVICE

STATE OF CALIFORNIA, COUNTY OF LOS ANGELES

At the time of service, I was over 18 years of age and not a party to this action. I am employed in the County of Los Angeles, State of California. My business address is 15760 Ventura Boulevard, 18th Floor, Encino, California 91436-3000.

On November 9, 2015, I served true copies of the following document(s) described as **APPELLANT'S OPENING BRIEF** on the interested parties in this action as follows:

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

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

Executed on November 9, 2015, at Encino, California.

s/ Robyn Whelan

SERVICE LIST

Trejo v. Ford Motor Company
Nevada Supreme Court No. 67843

Attorneys	Party(s) Represented
Brian D. Nettles William R. Killip, Jr. Nettles Law Firm 1389 Galleria Drive, Suite 200 Henderson, Nevada 89014	Respondent *Theresa Garcia Trejo* **Electronic Copy,** via Nevada Supreme Court's Appellate Case Management System (ACMS)
Ricardo A. Garcia Jody R. Mask Garcia Ochoa Mask 820 South Main Street McAllen, Texas 78501	Respondent *Theresa Garcia Trejo* **Hard copy, via U.S. Mail**
Larry W. Lawrence, Jr. Lawrence Law Firm 3112 Windsor Road, Suite A234 Austin, Texas 78703	Respondent *Theresa Garcia Trejo* **Hard copy, via U.S. Mail**
A. William Maupin, Esq. Naylor & Braster 1050 Indigo Drive, Suite 112 Las Vegas, Nevada 89145	Respondent *Theresa Garcia Trejo* **Electronic Copy,** via Nevada Supreme Court's Appellate Case Management System (ACMS)
David N. Frederick, Esq. 43 Innisbrook Avenue Las Vegas, Nevada 89113	Respondent *Theresa Garcia Trejo* **Electronic Copy** via Nevada Supreme Court's Appellate Case Management System (ACMS)

Beau Sterling Sterling Law, LLC 228 South 4th Street, 1st Floor Las Vegas, Nevada 89101	Respondent *Theresa Garcia Trejo* **Electronic Copy** via Nevada Supreme Court's Appellate Case Management System (ACMS)