

FILED
12-10-2021
CLERK OF WISCONSIN
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STATE OF WISCONSIN
COURT OF APPEALS
DISTRICT 2

Appeal No. 2020AP001052

EDWARD A. VANDERVENTER, JR. and SUSAN J. VANDERVENTER,
Plaintiffs-Respondents,

v.

HYUNDAI MOTOR AMERICA and HYUNDAI MOTOR COMPANY,
Defendants-Appellants,

KAYLA M. SCHWARTZ and COMMON GROUND HEALTHCARE
COOPERATIVE,
Defendants.

RESPONDENTS' BRIEF

APPEAL FROM THE CIRCUIT COURT OF RACINE COUNTY,
CASE NO. 2016CV001096
Honorable Eugene A. Gasiorkiewicz, Presiding

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TABLE OF CONTENTS

	Page
TABLE OF AUTHORITIES	4
SUMMARY OF THE ARGUMENT	8
STATEMENT ON ORAL ARGUMENT AND PUBLICATION	10
STATEMENT OF FACTS	11
A. Vanderventer should have been protected in this moderate crash.....	11
B. The undisputed physical evidence showed that the head restraint posts acted as the injurious fulcrum	13
C. The defectively designed “weak hollow tube” allowed the posts to deform toward Vanderventer’s spine, causing his paralysis.....	18
ARGUMENT	22
I. “ERRONEOUS EXERCISE OF DISCRETION” IS THE CORRECT STANDARD OF REVIEW FOR ALL ISSUES	22
II. THE CIRCUIT COURT PROPERLY FULFILLED ITS GATEKEEPING FUNCTION	23
A. <i>Daubert</i> is flexible, affording the circuit court “tremendous discretion” in assessing reliability	23
B. The circuit court applied the correct legal standard when analyzing Saczsalski’s testimony	25
C. The court properly exercised its discretion in finding that Saczsalski’s testimony was reliable	26
D. Hyundai’s other arguments relating to Saczsalski are meritless	31
E. Hyundai’s misleading argument that Kurpad gave unreliable “biomechanical” opinions was appropriately rejected	33
1. The circuit court unquestionably applied the correct legal standard while evaluating Kurpad’s testimony	34

2. The circuit court properly exercised its discretion finding Kurpad's causation testimony reliable.....	36
a. Kurpad was uniquely qualified	36
b. Kurpad's medical causation opinions had a reliable basis.....	38
c. Ruling out DISH was reliable	40
d. Kurpad was not required to test the injury	42
3. Hyundai was not unfairly prejudiced.....	42
F. Saczalski's causation testimony was properly admitted.....	43
III. THE CIRCUIT COURT PROPERLY EXERCISED ITS DISCRETION IN ADMITTING EVIDENCE.....	45
A. Recall Evidence Was Proper Rebuttal	45
1. Hyundai forfeited its recall argument	45
2. Recall evidence was properly admitted	46
3. The circuit court properly exercised its discretion in admitting this limited evidence for a limited purpose.....	48
B. The court did not err in admitting the AD seat design.....	49
1. The court did not err in allowing evidence of the AD design under §895.047(4).....	49
2. The AD design was also admissible under §904.07	51
3. Hyundai used the AD seat to promote its safety practices, which Vanderverter was entitled to rebut	53
4. No prejudice could have resulted from admission of the AD seat ...	55
C. Hyundai was not unfairly surprised by Saczalski	55
CONCLUSION.....	57
CERTIFICATION AS TO FORM, LENGTH, AND APPENDIX	59

TABLE OF AUTHORITIES

<u>Cases</u>	<u>Page(s)</u>
<i>5308 FAB Ltd. v. Team Indus.</i> , No. 10-CV-183, 2012 WL 1079886 (E.D.Wis.3/30/12).....	24
<i>A&A Enters. v. City of Milwaukee</i> , 2008 WI App 43, 308 Wis.2d 479, 747 N.W.2d 751	22
<i>Astra Aktiebolag v. Andrx Pharmaceuticals</i> , 222 F.Supp.2d 423	30
<i>Bayer ex rel. Petrucelli v. Dobbins</i> , 2016 WI App 65, 371 Wis.2d 428, 885 N.W.2d 173	42
<i>Bizzle v. McKesson</i> , 961 F.2d 719 (8th Cir.1992)	48
<i>Brown v. Burlington N. Santa Fe Ry. Co.</i> , 765 F.3d 765 (7th Cir. 2014).....	40
<i>Buel v. LaCrosse Transit</i> , 77 Wis.2d 480, 253 N.W.2d 232 (1977).....	58
<i>Bullock v. Daimler Trucks N. Am., LLC</i> , No. 08-CV-00491-PAB, 2010 WL 4530417 (D.Colo.9/30/10).....	23
<i>Burkes v. Hales</i> , 165 Wis.2d 585, 478 N.W.2d 37 (Ct.App.1991).....	25
<i>Caldwell v. Piggly-Wiggly</i> , 32 Wis.2d 447, 145 N.W.2d 745 (1966)	22
<i>Correa v. Cruisers</i> , 298 F.3d 13 (1st Cir.2002).....	27, 32
<i>Crosby v. Cooper Tire & Rubber</i> , 524 S.E.2d 313 (Ga.App.1999), <i>rev'd on other grounds</i> , 543 S.E.2d 21 (2001), <i>vacated in part</i> , 548 S.E.2d 30 (2001)	47
<i>D.L. by Friederichs v. Huebner</i> , 110 Wis.2d 581, 329 N.W.2d 890 (1983)	52
<i>Daubert v. Merrill Dow Pharmaceuticals</i> , 509 U.S. 570 (1993).....	10, 22-26, 29, 32, 35-37, 56
<i>Dhillon v. Crown Controls Corp.</i> , 269 F.3d 865 (7th Cir.2001)	42
<i>Dottai v. Altenbach</i> , 19 Wis.2d 373, 120 N.W.2d 41 (1963)	35
<i>Dura Automotive Sys. Of Ind., v. CTS Corp.</i> , 285 F.3d 609 (7th Cir.2002)	30
<i>Falconer v. Penn Maritime</i> , 232 F.R.D. 37 (D.Maine2005)	29

<i>Fredrickson v. Louisville Ladder Co.</i> , 52 Wis.2d 776, 191 N.W.2d 193 (1971) ...	57
<i>Gamboa v. Centrifugal Casting Mach. Co.</i> , No.CV-H-14-1273, 2015 WL 9948807 (S.D.Tex.5/15/15)	29
<i>Gass v. Marriott Hotel Servs.</i> , 558 F.3d 419 (6th Cir.2009)	37
<i>In re Commitment of Jones</i> , 2018 WI 44, 381 Wis.2d 284, 911 N.W.2d 97	10, 25, 37
<i>In re Deannia D.</i> , 2005 WI App 264, 288 Wis.2d 485, 709 N.W.2d 879	57
<i>Kalb v. Luce</i> , 239 Wis. 256, 1 N.W.2d 176 (1941)	22
<i>Kilty v. Weyerhaeuser Co.</i> , No. 16-CV-515-WMC, 2018 WL 2464470 (W.D.Wis.6/1/18)	48
<i>Lapsley v. Xtek, Inc.</i> , 689 F3d 802 (7th Cir.2012)	31, 42
<i>Larson v. Wisconsin Cent. Ltd.</i> , No. 10-C-446, 2012 WL 359665 (E.D.Wis.2/2/12)	24
<i>Lewy v. Remington Arms.</i> , 836 F.2d 1104 (8th Cir.1988)	48
<i>Magyar v. WHCLIP</i> , 211 Wis.2d 296, 564 N.W.2d 766 (1997)	57
<i>Malcolm v. Evenflo</i> , 217 P.3d 514 (Mont.2009)	48
<i>Manieri v. Volkswagenwerk A.G.</i> , 376 A.2d 1317 (N.J.App.Div.1977)	46, 47
<i>Martindale v. Ripp</i> , 2001 WI 113, 246 Wis.2d 67, 629 N.W.2d 698 ...	22, 37, 43, 44
<i>McKeon v. City of Morris</i> , 14-CV-2084, 2016 WL 5373068 (N.D.Ill.9/26/16)	43
<i>Muniga v. Gen. Motors</i> , 302 N.W.2d 565 (Mich.App.1980)	48
<i>Nelson v. Tennessee Gas Pipeline Co.</i> , 243 F.3d 244 (6th Cir.2001)	26
<i>Olivarez v. Unitrin Prop. & Cas.</i> , 2006 WI App 189, 296 Wis.2d 337, 723 N.W.2d 131	22
<i>Peebles v. Sargent</i> , 77 Wis.2d 612, 253 N.W.2d 459 (1977)	48
<i>Phillips v. Raymond Corp.</i> , 364 F.Supp.2d 730 (N.D.Ill.2005)	26, 44

<i>Pike v. Premier Transp. & Warehousing</i> , No.13-CV-8835, 2016 WL 6599940 (N.D.Ill.11/8/16)	31, 43-44
<i>Pineda v. Ford Motor Co.</i> , 520 F.3d 237 (3d Cir.2008).....	23-24
<i>Schmude v. Tricam Indus.</i> , 550 F.Supp.2d 846 (E.D.Wis.2008); <i>aff'd</i> , 556 F.3d 624, 626 (7th Cir.2009)	42, 56
<i>Seifert v. Balink</i> , 2017 WI 2, 372 Wis.2d 525, 888 N.W.2d 816....	22, 24, 34, 36, 44
<i>Sievert v. Am. Fam. Mut. Ins.</i> , 180 Wis.2d 426, 509 N.W.2d 75 (Ct.App.1993), <i>aff'd</i> , 190 Wis. 2d 623 (1995)	58
<i>State v. Albright</i> , 98 Wis.2d 663, 298 N.W.2d 196 (Ct.App.1980).....	23
<i>State v. Cadden</i> , 56 Wis.2d 320, 201 N.W.2d 773 (1972)	35
<i>State v. Cameron</i> , 2016 WI App 54, 370 Wis.2d 661, 885 N.W.2d 611	29
<i>State v. Eugenio</i> , 219 Wis.2d 391, 579 N.W.2d 642 (1998).....	53
<i>State v. Giese</i> , 2014 WI App 92, 356 Wis.2d 796, 854 N.W.2d 687	22, 23
<i>State v. Hoffman</i> , 106 Wis.2d 185, 316 N.W.2d 143 (Ct.App.1982)	46
<i>State v. Johnson</i> , 184 Wis.2d 324, 516 N.W.2d 463 (Ct.App.1994).....	42, 48
<i>State v. Swope</i> , 2008 WI App 175, 315 Wis.2d 120, 762 N.W.2d 725	43
<i>Tanner v. Shoupe</i> , 228 Wis.2d 357, 596 N.W.2d 805 (Ct.App.1999).....	44
<i>Transcon. Gas Pipeline Corp. v. Societe d'Exploitation du Solitaire</i> , No.CIV.A.05-1295, 2007 WL 2712936 (E.D.La.9/13/07).....	29
<i>U.S. v. Parra</i> , 402 F.3d 752, (7th Cir.2005)	44
<i>United States v. Morrow</i> , 374 F.Supp.2d 51 (D.D.C.2005).....	23, 32
<i>United States v. Rosby</i> , 454 F.3d 670 (7th Cir.2006)	48
<i>Zartner v. Scopp</i> , 28 Wis.2d 205, 137 N.W.2d 107 (1965)	8, 22
 <u>Statutes</u>	
Wis. Stat. §802.10	56
Wis. Stat. §809.22	10-11

Wis. Stat. §809.23	10-11
Wis. Stat. §895.047	28, 46-47, 49
Wis. Stat. §901.03	36
Wis. Stat. §901.06	45
Wis. Stat. §903.01	46-47
Wis. Stat. §904.01	47
Wis. Stat. §904.03	47
Wis. Stat. §904.07	48, 51, 53
Wis. Stat. §906.09	48
Wis. Stat. §907.02	23, 34
Wis. Stat. §907.03	35

Other Authorities

<i>Reference Manual on Scientific Evidence</i> (Federal Judicial Center, 3d ed. 2011)	26, 27, 29, 43-45
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SUMMARY OF THE ARGUMENT

Summary affirmance is the appropriate result. Hyundai Motor Company and Hyundai Motor America¹ raise only mine-run evidentiary issues which are eviscerated by simply reviewing the record. All were extensively briefed and argued before, during, and after trial. Each time, the circuit court properly exercised its discretion, applying the correct legal standards to the facts.

Though the evidence must be viewed in the light most favorable to the verdict, *Zartner v. Scopp*, 28 Wis.2d 205, 209, 137 N.W.2d 107 (1965), Hyundai improperly omits the ample evidence supporting Edward and Susan Vanderventer's² arguments and the verdict.

Hyundai also misrepresents Vanderventer's contentions. The circuit court explained: "We're talking about a seat design...that everyone agrees is to dissipate energy away from the occupant and to reduce the risk of harm as well as to prevent invasion of seat parts into the occupant's body." (R1778:77-78;R.App.27-28.) Vanderventer proved that Hyundai's defective weak hollow tube upper seat frame deformed during the crash, allowing the posts and guides³ of the head restraint to rotate, like a lever, toward Vanderventer's back. The deformation disrupted the uniform support the seat was undisputedly required to provide, creating a "fulcrum." That fulcrum caused multiple injuries at the same horizontal level in Vanderventer's back, including the vertebral fracture that compressed his spinal cord and paralyzed him.

The core scientific facts underpinning this contention were undisputed:

[A]lthough this was a four-week trial...this is actually a relatively simple case in the Court's perspective. . The physics is simple. The science is quite simple.... *These are not complicated concepts.*

¹ Collectively, "Hyundai."

² Hereafter, "Vanderventer" means Edward Vanderventer.

³ The head restraint posts slide into "guides" welded to the seat frame.(**Fig.2.**) Vanderventer calls them "posts;" Hyundai uses "prongs."

(R1778:77-78;R.App.27-28.)(emphasis added.)

Eviscerating Hyundai's argument that Vanderventer's theory was "novel," Hyundai's lead seat designer *identified this exact defect and mechanism of injury* in an engineering drawing before this vehicle was manufactured:

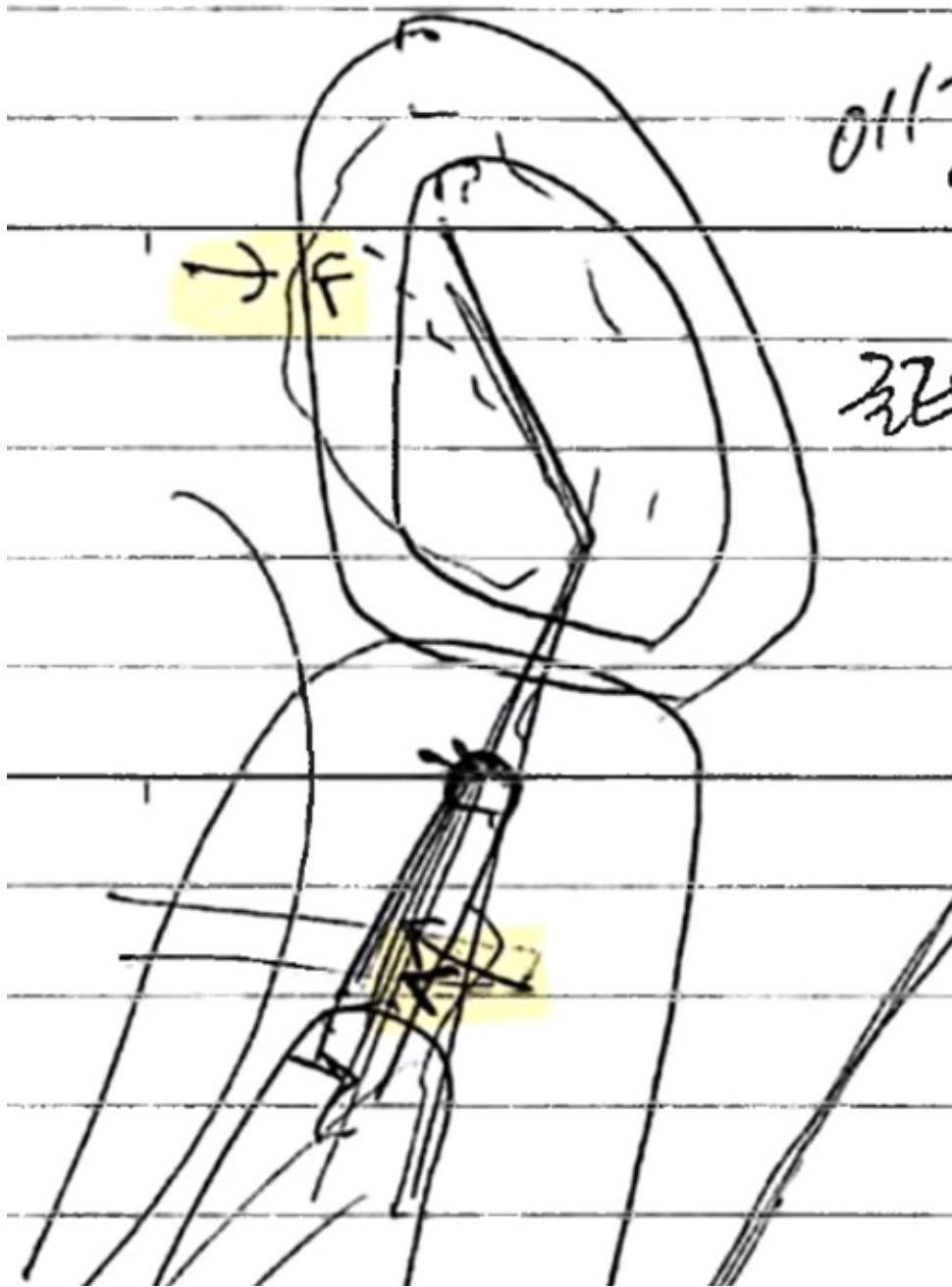


Fig. 1(R847)(Note arrows depicting force and rotation.)

This drawing shows Hyundai knew, before the seat was manufactured, that force (“F”) on the head restraint would cause the posts to rotate toward an occupant’s spine. (R1763:167-168;R.App.159-160.)

The physical evidence and admissions made by Hyundai’s witnesses substantiated the reliability of Vanderventer’s proof. Removing the seat cover and padding (“de-trimming”) revealed the changed angle of the posts—now pointing toward Vanderventer—as Fig. 1 predicted—and permanent damage to the seat foam, proving that the posts created the injurious fulcrum. (R1763:133-38;R.App.134-139.)

The circuit court properly rejected Hyundai’s ill-founded *Daubert*⁴ arguments. *Daubert*’s reliability standard is not “exceedingly high.” *In re Commitment of Jones*, 2018 WI 44, ¶33, 381 Wis.2d 284, 911 N.W.2d 97. The circuit court applied the correct legal standard to these facts. The record reveals careful consideration of all of Hyundai’s arguments, application of the correct legal standards, and a well-supported rationale for each ruling.

No error occurred, much less a prejudicial one, as the court found Hyundai’s claimed errors harmless. (R1778:177-178;R.App.48-49.) Hyundai’s complaints are baseless. The court was thorough and even-handed in adjudicating the evidentiary issues. Affirmance is required.

STATEMENT ON ORAL ARGUMENT AND PUBLICATION

Although this trial was lengthy and the verdict commensurate with the Vanderventers’ catastrophic injuries, neither is a criterion for oral argument or publication. Wis. Stat. §§809.22, 809.23(1)(a).⁵

This case falls within §809.22(2)(a) and warrants submission on briefs. Reviewing the circuit court’s decisions on motions after verdict⁶ (which Hyundai

⁴ *Daubert v. Merrill Dow Pharmaceuticals*, 509 U.S. 570 (1993).

⁵ All statutory references are to Wis.Stats.

⁶ (R.1778;R.App.25-49.)

curiously omitted from its 47-part appendix) reveals that Hyundai's arguments are meritless; the circuit court's rulings are clear and well-reasoned. Moreover, the briefs sufficiently present the issues such that the cost of oral argument would not be justified for either the court or parties. §809.22(2)(b). That said, Hyundai's citations to the record are frequently incorrect, rendering meaningful analysis and response difficult at best, further reason that neither oral argument nor publication is warranted.⁷

Further, this case falls directly within §809.23(1)(b), which bars publication where the issue is the sufficiency of the evidence to support the verdict. This appeal involves mine-run discretionary evidentiary decisions, all of which are well-supported by the record each of the many times the circuit court considered them. Publication of this decision would add nothing to Wisconsin jurisprudence, particularly given the ordinary nature of the issues Hyundai raises and Hyundai's failure to address all of the evidence in the context of the standard of review.

STATEMENT OF FACTS

A. Vanderverter should have been protected in this moderate crash.

Vanderverter was paralyzed when his 2013 Hyundai Elantra was rear-ended on July 31, 2015, only months after he and his wife retired from the cleaning business they operated. (R1766:43-44,47,78-79,80-81,100-101.) The paralyzing injury has been "far worse" than expected, as complications, hospitalizations, and surgeries left him unable to bend at the waist and permanently bedridden. (R1766:82-83,89-90,96-97.)

⁷ In addition, several documents in Hyundai's appendix do not match the record; for example, A.App.1103-1345, supposed to be R1763, appears to be a prior version of that same trial day's transcript, which is not identical to R1763. Except for R1787, most other trial transcripts, (R1765-R1776;A.App.1346-3193) also appear to vary from the versions in the record; the typeface is different and in some places hard to read. It is unclear if they are substantively different. Vanderverter has cited to the transcripts in Hyundai's Appendix where it appears the content is the same as the record. However, Vanderverter encourages the Court to use the versions in the record to ensure accuracy.

Hyundai admits that its vehicle design should protect occupants from serious injury with this moderate crash severity. (R1769:51-52;R.1787:213-214,1763:150;A.App.1252,1904-1905,3406-3407.) It did not.

In rear-end accidents, the rear passengers, closer to the impact, are most susceptible to injuries. (R1787:77;A.App. 3270). The rear portion of the Elantra absorbed energy as designed, preventing intrusion into the occupant space. (R1763:43-44;R.1787:185-86,192-94;R.App.126-127;A.App.3378-3379,3385-3387.) All three passengers walked away with minor injuries, but driver Vanderverter was paralyzed. (R1761:143-44,149-150;R1787:188-194;A.App.3381-3387.)

Vanderverter was treated by Dr. Shekar Kurpad, a Medical College of Wisconsin neurosurgeon. (R1787:26;A.App.3219.) In addition to extensive neurosurgical experience, Kurpad is a “prolific researcher and writer” on the causation of spinal injuries, including papers “that explain how certain forces cause spinal trauma and related injuries” in automobile crashes. (R862;R1787:13-27;R1774:53-54;A.App.2822-2833,3206-3220;R.App.50-83.)

While surgically stabilizing Vanderverter’s spine, Kurpad observed “*this was a very rare and unusual fracture*” that initially “lacked an explanation” from a medical perspective. (R1787:72,121;A.App.3265,3314.) Kurpad realized Vanderverter’s back had been subject to a “focal,” or localized, force during the crash because he had multiple injuries at the same level, “T6.” (R1787:27,125-128;A.App.3220,3318-3321.) These included bilateral rib fractures, the vertebral fracture, a “divot” and “compression” of the spinal cord from behind which paralyzed him, bleeding behind the spinal cord, bleeding behind the lungs, and lung injuries—all on the same horizontal plane. (*Id.*)

Hyundai theorized that a common degenerative condition, DISH, caused Vanderverter's spinal fracture. Kurpad rebutted that theory as his surgical findings ruled-out a DISH fracture.⁸ (R1787:111;A.App.3304.)

B. The undisputed physical evidence showed that the head restraint posts acted as the injurious fulcrum.

Ph.D. biomechanical and engineering expert Dr. Kenneth Saczalski spent the bulk of his 50-year career studying crash dynamics and injuries, focusing on the design of automobile seats. (R642;R1787:194-196,203-211;R.App.84-103;A.App.3387-3389,3396-3404.) The injury demonstrated that Vanderverter incurred a "focal load" at level T6 of his thoracic spine, but before de-trimming the seat, the cause was unclear. (R1787:184-94,235-36;A.App.3377-3387,3428-3429.)

The forces in a rear-end crash cause the occupant to move into and load the seatback, making the seat the occupant's primary protection (unlike a frontal crash, where the seatbelt and airbag protect the occupant). (R1787:185-86;A.App.3378-3379.) The seatback must act like a "catcher's mitt," allowing the occupant to pocket within it and providing "uniform support" to the spine. (R1787:185-86,R1763:157-58;R.App.152-153;A.App.3378-3379.)

Any object protruding from the seatback, even slightly, can disrupt "uniform support" and act as a fulcrum (an object around which the spine can bend). (R1763:34-35;R.App.120-121.) The spine is particularly vulnerable in a rear-end crash to an intrusion from behind because the occupant's spine straightens ("extension") while "pocketing" deeply into the seat. (R1772:18-19,R1787:184-93;A.App.3377-3386.) Every technical witness and expert agreed that a "spine in extension meeting up with a fulcrum" is particularly susceptible to fracture. (R1769:13,R1768:103,R1771:211-

⁸ Kurpad and Hyundai's expert agreed that Hyundai's "3-D model" (App.Br.10) did not accurately represent Vanderverter's spine. (R1787:78-79,R1773:131-132;A.App.3271-3272,2670-2671.)

212,R1787:54;A.App.1800,1866,2491-2492,3247.) Hyundai's biomechanical expert authored a paper substantiating this susceptibility. (R.1408;R.App.104-113.)

Any intrusion of even **4-5 millimeters** can cause "devastating injury." (R1787:47,70,234;A.App.3240,3263,3427.) Hyundai agreed it is of paramount importance to design seats to provide "uniform support." (R1771:211,237-238,R1772:71-72,R1773:197-199,1770:36,R.910:16-17;A.App.2072,2381,2517-2518,2736-2738.)

De-trimming Vanderventer's seat revealed that the head restraint posts had disrupted the seat's "uniform support" and become the injury-causing fulcrum. (R1763:134-36,151;R.App.135-137,151.) The posts were permanently deformed 20 degrees forward from their design angle, ***now pointing towards Vanderventer's back, rather than away from it***, just as Fig.1 predicted. (R1763:144-145;R.App.145-146.) In contrast, the front passenger's posts remained pointed rearward, because the lighter passenger did not deform the hollow tube structure as Vanderventer had:



Fig.2(passenger seat in background)(R1504:73,R694:2,R.1763:222,R1787:185-87;RApp.169;A.App.3378-3380).

The posts' permanently-changed angle toward Vanderverter would have been even more severe during the crash; that's basic physics. (R1763:143-145;R.App.144-146.) When an object is forcefully loaded, it distorts, then rebounds once the load is removed. (R1763:141;R.App.142.) Permanent damage prevents it from rebounding completely. (*Id.*) Hyundai did not dispute these basic principles or the physical evidence. (R1406:34,R1403:6-7.)

The underside of the seat foam was permanently damaged, leaving marks and gouges where the foam had been crushed between the posts and Vanderverter's back—indisputable physical evidence that the posts created a fulcrum, disrupting the seat's "uniform support." (R1763:134-37;R.App.135-38.) Hyundai's expert did not dispute that the posts caused permanent gouges in the foam during the crash (R1772:8), or that the posts permanently rotated 20 degrees

forward. (R1771:174,R1773:215-217;A.App.2454,2754-2756.) Saczalski's analysis, *confirmed by Hyundai's surrogate testing*, showed the height of the posts matched the level of Vanderventer's injuries:



Fig 3(R.1415:2,7)(depicts ruler abutting bottom of post and T6.)

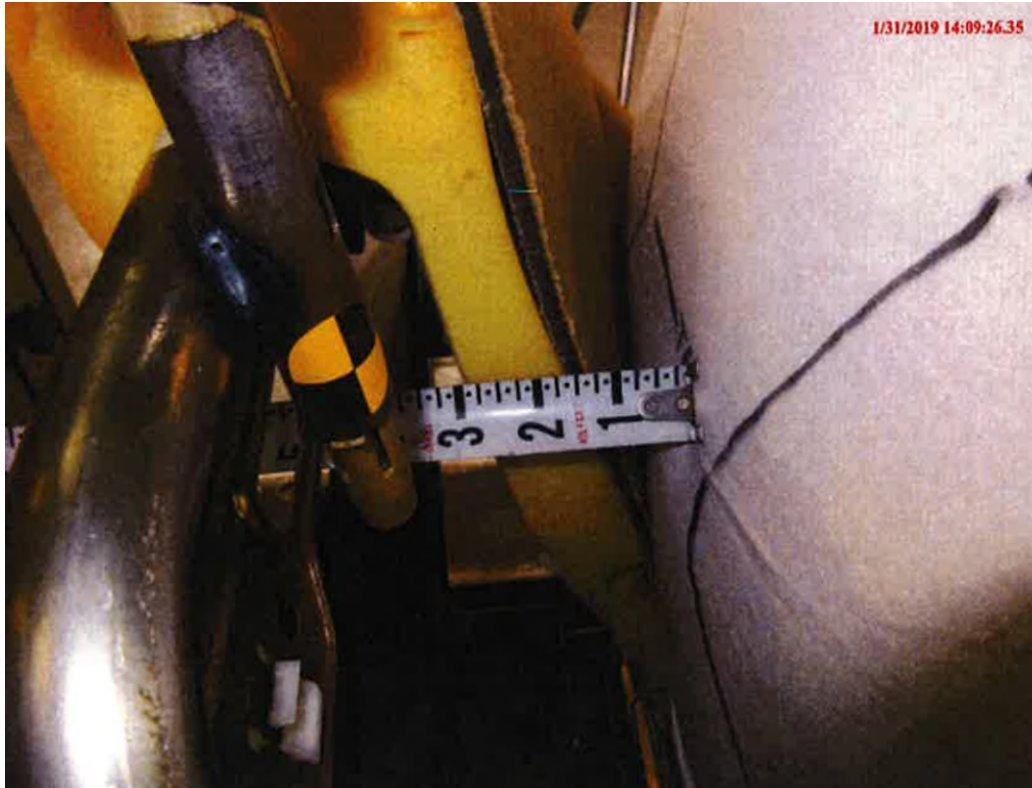


Fig 4(R.1415:2,7)(depicts ruler abutting bottom of post and T6.)

This physical evidence explained why three passengers walked away; they did not have an intruding fulcrum in their backs, while Vanderverter did.

(R1787:237;A.App.3430.)

Saczalski described the thorough process he applied to reach this conclusion, including reviewing documentary evidence, running tests, and inspecting the vehicle. (R1787:185-93,236;A.App.3378-3386,3429.) He opined that the physical evidence and biomechanics showed that the posts formed a fulcrum in Vanderverter's back at level T-6, causing the fractures and other injuries along that same "axial" or horizontal plane. (R1763:35,134-137,151,226-231;R1787:121,234-236;R.App.121,135-138,151,171-174;A.App.3427-349.)

Kurpad, relying on Saczalski's biomechanical analysis, agreed the posts "steadied the spine and the [rib] cage at T6, T7 and below while everything above it moved backward. And therefore, that fulcrum caused not only the thoracic spine fracture, but also caused the rib fractures and [the lung injuries]...all in the same cross

sectional level.” (R1774:38-39,R1787:125;A.App.2807-2808,3318.) Hyundai incorrectly argues that the “prongs” would have punctured Vanderventer’s back, but Kurpad explained it was not “the posts penetrating the skin or contacting the spine or some more localized trauma...” that caused the injuries. (R1787:125;A.App.3318.) Instead, the ribs, which form a rigid cage with the spine, were stopped by the posts at T6, while Vanderventer’s spine above that level continued rearward around the fulcrum. (R1774:38-39,R.1787:125;R1763:226-231;R.App.171-174;A.App.2807-2808,3318.) That caused the fracture, cord compression, and paralysis. (*Id.*)

Five experts testifying for Hyundai raised *only one alternate possibility*: Vanderventer’s spine spontaneously fractured in the crash due to a condition *one-third of adults have*, “DISH.” (R1787:50;A.App.3243). Kurpad ruled-out DISH because (1) anatomically, this was not a DISH fracture, (2) Vanderventer’s spine was “strong” and “healthy,” (3) Vanderventer’s thoracic DISH was “mild to moderate,” and (4) Vanderventer was not “inflexible” from DISH, as Hyundai argued. (R1787:44-46,60-61,67,72-73,102-103,108-112;A.App.3237-3239,3253-3254,3265-3266,3295-3296,3301-3305.) Hyundai’s DISH theory was rejected by the jury. (R1485.)

C. The defectively designed “weak hollow tube” allowed the posts to deform toward Vanderventer’s spine, causing his paralysis.

The defect that allowed the posts to deform toward Vanderventer’s spine, creating a fulcrum, was the weak hollow tube upper seat structure to which the guides attached. (R1763:148;R.App.149.) Hyundai's expert conceded that as Vanderventer loaded the seat, applying force to the upper seat structure and head restraint, the weak hollow tube crushed, bent, and buckled, allowing the posts to rotate toward his back. (R1763:185-86,R.1772:29;R.App.165-166.)

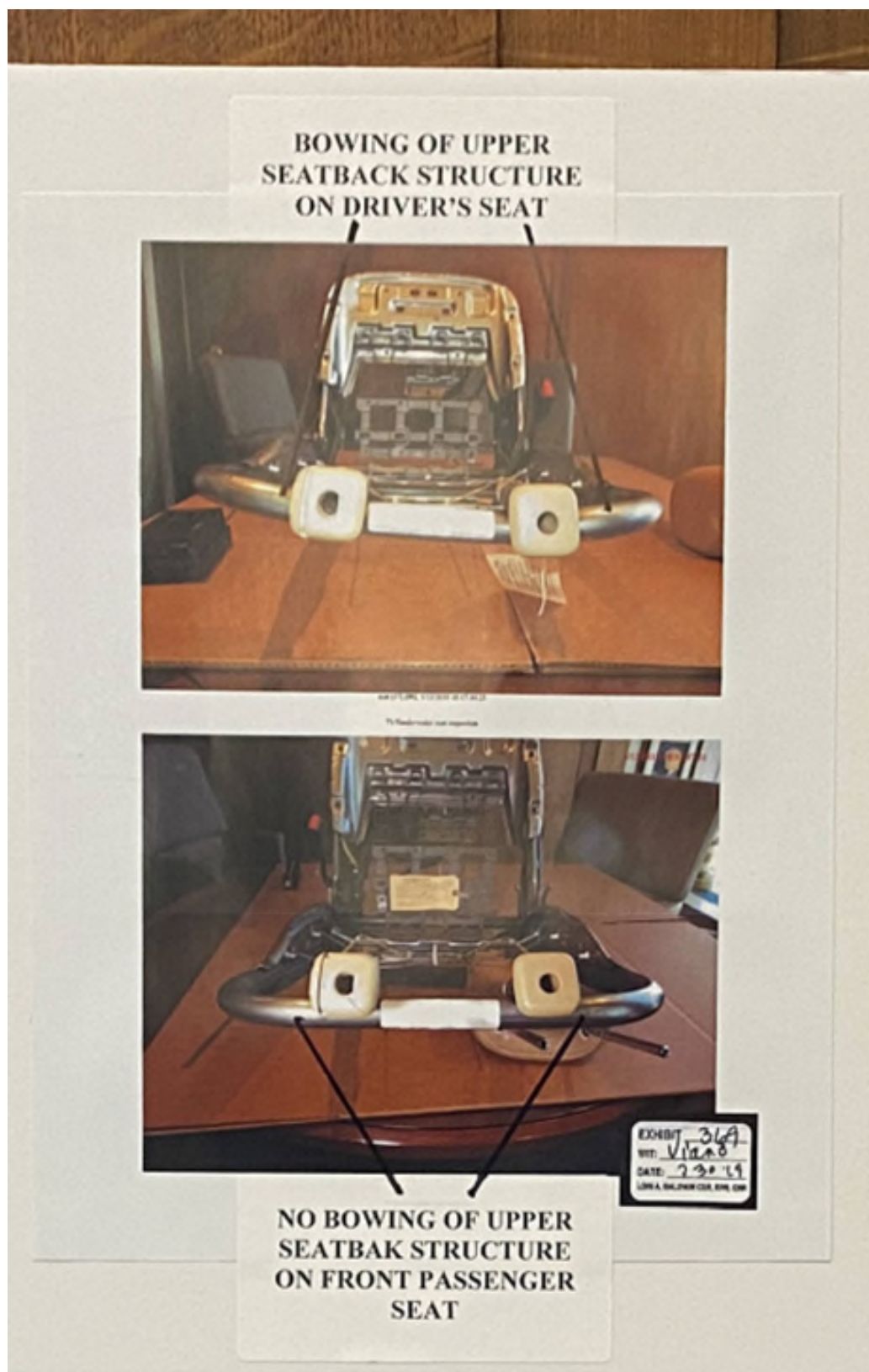


Fig.5(R920.)

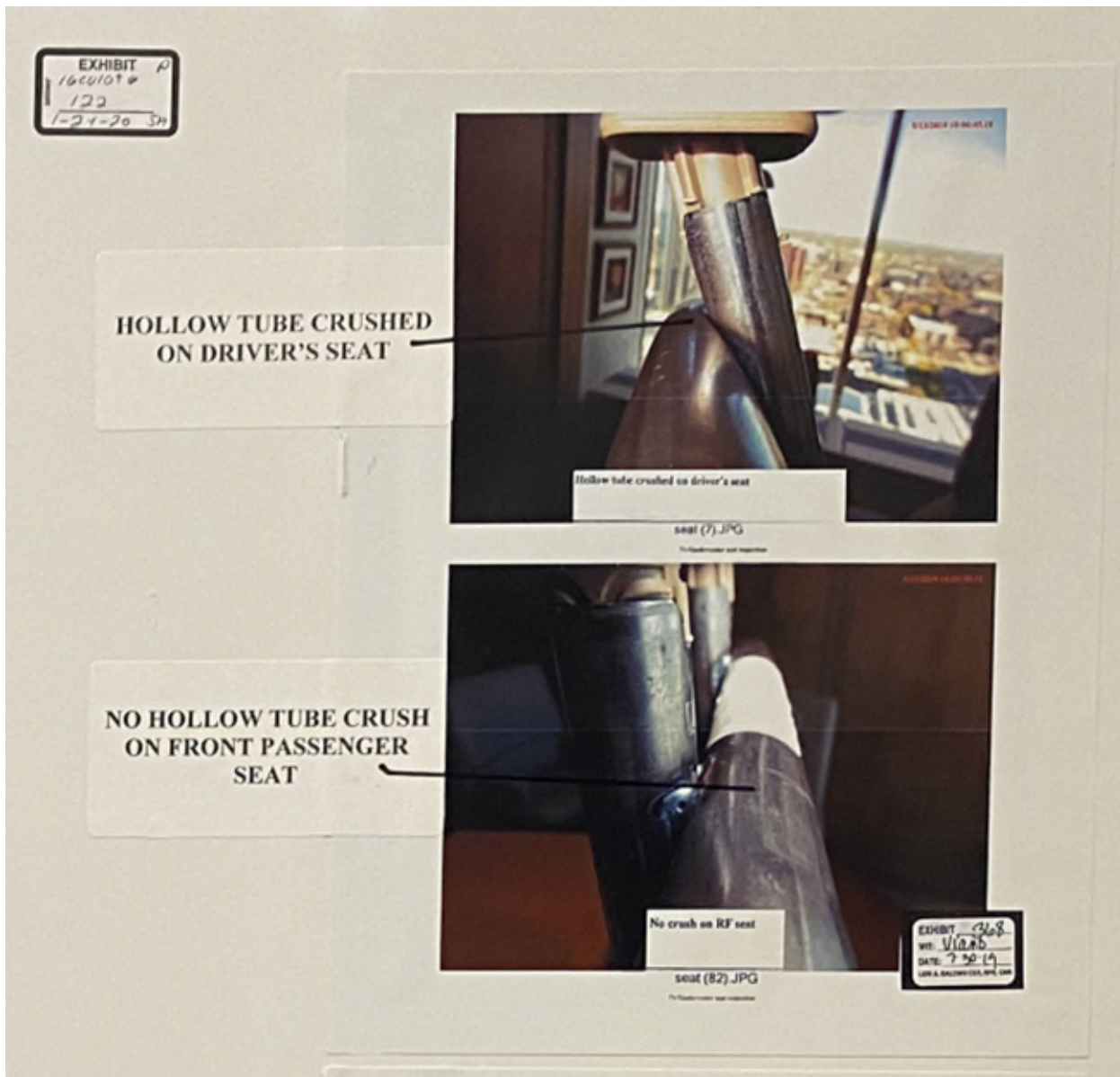


Fig.6(R920.)

Post-crash, the hollow tube was permanently deformed in multiple ways, allowing the posts to angle toward Vanderventer's back. (*Id.*)

This was not a “novel theory.” *Hyundai’s lead seat designer had identified this exact defect in one of his design drawings.* (R847;Fig.1.) Nor were these complicated concepts, as the court observed. (R1778:77-78;R.App.27-28.) Hyundai’s biomechanical expert agreed the changed angle of the posts was “basic physics” and just a “lever.” (R1773:208;A.App.2747.)

Saczalski performed a well-accepted mathematical engineering analysis, “finite element analysis,” to determine that the weak hollow tube allowed the posts to rotate under force toward the occupant and was thus defective. (R844-46; R1787:226,262-63;A.App.3419,3455-56.) Saczalski relied on Hyundai’s internal testing of the seat, which *showed this exact defect occurring when the head restraint was loaded*. (R1763:140-147,R855;R.App.141-148.) Another Hyundai test showed that the hollow tube was the “weak link” in the system. (R1763:22,159-63,R852;R.App.117,154-158.) Also, during dynamic sled testing, Hyundai’s safety director observed the head restraint deforming more than the rest of the seat but did not investigate. (R1053:48.)

In addition to Hyundai’s testing, the reliability of Saczalski’s opinions was supported by critical admissions from Hyundai’s experts. One admitted that allowing the posts to rotate toward the occupant would be a “pretty stupid design.” (R.1460:1.) Another agreed that Hyundai should “perhaps warn that if you [weigh] more than 285 pounds” (approximately Vanderventer’s weight), you are “at a higher risk for injury” in a rear-end collision in this vehicle. (R1773:203-04;A.App.2742-2743.)

Based on extensive review and testing, Saczalski testified that Hyundai’s failure to follow basic design safety practices led to the defective and unreasonably dangerous seat design. (R1763:168-170;R.App.160-162.) From its own documents and testing, Hyundai knew or should have known that this design created a significant risk of harm. (R1763:167-68;R.App.159-160.) However, the weak hollow tube design, only used in one Elantra generation (2012-2016), was \$7 less than safer prior designs. (R1787:261-263,R1763:21,35-36;R.App.116,120-121;A.App.3454-3456.)

ARGUMENT

I. “ERRONEOUS EXERCISE OF DISCRETION” IS THE CORRECT STANDARD OF REVIEW FOR ALL ISSUES.

On challenges to sufficiency of the evidence, this court only considers evidence which sustains the verdict. *Zartner*, 28 Wis.2d at 209.

A circuit court’s decision to admit or exclude expert testimony is reviewed under an erroneous exercise of discretion standard. *State v. Giese*, 2014 WI App 92, ¶16, 356 Wis.2d 796, 854 N.W.2d 687. While ensuring the circuit court applied the *Daubert* standard is an issue of law, ***how the court assesses reliability*** is discretionary. *Seifert v. Balink*, 2017 WI 2, ¶90, 372 Wis.2d 525, 888 N.W.2d 816. Where “the circuit court applied the appropriate legal framework, an appellate court reviews whether the circuit court properly exercised its discretion in determining which factors should be considered in...applying the reliability standard....”). Because the circuit court unquestionably applied the proper legal standard, review of the court’s reliability determination is “highly deferential.” *Olivarez v. Unitrin Prop. & Cas.*, 2006 WI App 189, ¶16, 296 Wis.2d 337, 723 N.W.2d 131.

The circuit court erroneously exercises its discretion only “if there was ***no reasonable basis for the trial court's decision.***” *A&A Enters. v. City of Milwaukee*, 2008 WI App 43, ¶18, 308 Wis.2d 479, 747 N.W.2d 751(emphasis added). The test is not whether the reviewing court agrees with the circuit court, but whether appropriate discretion was in fact exercised. *Martindale v. Ripp*, 2001 WI 113, ¶29, 246 Wis.2d 67, 629 N.W.2d 698. In this case, the court appropriately exercised its discretion and should be affirmed.

“To entitle an appellant to prevail on his appeal it is necessary for him to show, not only that the error complained of was committed, but that it operated to his prejudice.” *Kalb v. Luce*, 239 Wis. 256, 260, 1 N.W.2d 176 (1941). Affirmative evidence of prejudice is required. *Caldwell v. Piggly-Wiggly*, 32 Wis.2d 447, 457, 145 N.W.2d 745 (1966). “Error is harmless unless the error is so

prejudicial that a different result...would probably have been reached....” *State v. Albright*, 98 Wis.2d 663, 677, 298 N.W.2d 196 (Ct.App.1980).

There was neither error nor prejudice; affirmance is required.

II. THE CIRCUIT COURT PROPERLY FULFILLED ITS GATEKEEPING FUNCTION.

A. *Daubert* is flexible, affording the circuit court “tremendous discretion” in assessing reliability.

Under *Daubert*: “[w]hen a court denies the right to have a jury decide a disputed issue, especially one of a scientific nature, its reasons for doing so must be strong...expert opinion based on sound scientific methodology presents ‘a classic battle of the experts, a battle in which the jury must decide the victor.’” *United States v. Morrow*, 374 F.Supp.2d 51, 63–64 (D.D.C.2005)(internal citations omitted); *Giese*, 356 Wis.2d 796, ¶23.

Section 907.02 requires expert testimony to be “based upon sufficient facts or data,” be “the product of reliable principles and methods,” and result from the witness's reliable application of these “principles and methods...to the facts of the case.” The circuit court serves as a “gatekeeper...to ensure that the expert’s opinion is based on a reliable foundation and is relevant to the material issues.” *Giese*, 356 Wis.2d 796, ¶18. The court does not determine whether the opinion is correct, only whether it is relevant, has solid methodology, and is helpful to the jury. *Daubert*, 509 U.S. at 589. Thus, the question is whether the principles and methods that the expert relies upon have a reliable foundation “in the knowledge and experience of [the expert’s] discipline.” *Id.*, at 592. The court focuses on the principles and methodology, not the conclusion. *Id.*

Daubert “is not a mechanism by which a party may mount a preemptive strike against all manner of testimony.” *Bullock v. Daimler Trucks N. Am., LLC*, No. 08-CV-00491-PAB, 2010 WL 4530417, at*2 (D.Colo.9/30/10). To the contrary, “[t]he Rules of Evidence embody a strong preference for admitting any evidence that may assist the trier of fact.” *Pineda v. Ford Motor Co.*, 520 F.3d

237, 243 (3d Cir.2008); *Seifert*, 372 Wis.2d 525, ¶54, (post-*Daubert*, rejecting expert testimony is exception, not rule.) “Thus, there is a presumption of admissibility for expert testimony so long as it is relevant, reliable, will assist the trier of fact, and is not unduly prejudicial.” 5308 *FAB Ltd. v. Team Indus.*, No. 10-CV-183, 2012 WL 1079886, at*3 (E.D.Wis.3/30/12). “[S]haky but admissible” testimony may be challenged by cross-examination, presentation of contrary evidence, and instruction on the burden of proof. *Seifert*, 372 Wis.2d 525, ¶86 (internal quotation omitted).

“[T]rial judges have considerable leeway in deciding how to determine the reliability of particular expert testimony, as well as in deciding whether or not an expert's testimony is reliable.” *Larson v. Wisconsin Cent. Ltd.*, No. 10-C-446, 2012 WL 359665, at*2 (E.D.Wis.2/2/12). They also have tremendous discretion “in determining which factors should be considered in assessing reliability, and in applying the reliability standard to determine whether to admit or exclude evidence.” *Seifert*, 372 Wis.2d 525, ¶90. “In other words, a circuit court has discretion in determining the reliability of the expert's principles, methods, and the application of the principles and methods to the facts of the case.” *Id.* ¶92.

Many factors may be assessed in determining reliability. *Daubert*, 509 U.S. at 593-94; *Seifert*, 372 Wis.2d 525, ¶64. The ultimate reliability inquiry is flexible and lenient. *Id.* Due to wide variability in experts and issues, factors for assessing reliability “may or may not be pertinent..., depending on the nature of the issue, the expert's particular expertise, and the subject of his testimony.” *Id.*, ¶70-71.

Here, the circuit court properly fulfilled its gatekeeper role, scrutinizing the testimony for reliability and admitting it because the basic scientific principles were undisputed and each reliably applied their methodology to the facts. Its correct decision must be affirmed.

B. The circuit court applied the correct legal standard when analyzing Saczalski's testimony.

Hyundai's ploy for *de novo* review, arguing the circuit court paid only "lip service" to *Daubert*, cannot withstand scrutiny. "[W]here the record shows that the court looked to and considered the facts of the case and reasoned its way to a conclusion that is (a) one a reasonable judge could reach and (b) consistent with applicable law," this court must affirm. *Burkes v. Hales*, 165 Wis.2d 585, 590, 478 N.W.2d 37 (Ct.App.1991).

While reasons must be stated, they need not be exhaustive. It is enough that they indicate to the reviewing court that the trial court "undert[ook] a reasonable inquiry and examination of the facts" and "the record shows that there is a reasonable basis for the ... court's determination."...Indeed, "[b]ecause the exercise of discretion is so essential to the trial court's functioning, we generally look for reasons to sustain discretionary decisions."

Id. at 590–91 (internal quotations omitted.)

The circuit court detailed its analysis regarding admissibility of expert testimony *in limine*, declaring Saczalski's testimony admissible. (R1757:23-32,92-93,135-136;R.App.4-16;A.App.826-834,895-896,937-938.) It again applied the correct legal standard, citing *Jones*, 381 Wis.2d 284, and listing the required factors when addressing Hyundai's mid-trial objection. (R1765:147-150;A.App.1492-1495.) Given *Burkes*, no exhaustive analysis is required for a reiterated objection.

Nonetheless, the court carefully considered Hyundai's mid-trial challenge anew. Saczalski had scientific and specialized knowledge, including knowledge regarding fulcrums, physics, and biomechanical effects. (R1765:148;A.App.1493.) His education and experience in biomechanics, particularly automotive seat design, supported this conclusion.⁹ (R642,R1787:194-196,203-211;R.App.84-103;A.App. 3387-3389,3396-3404.) Satisfied that Saczalski's opinion was based on sufficient facts, the court held that he reliably applied principles and methods to the facts; it "listened to his mathematical analysis, his experience and training

⁹ So did Hyundai's concession that he was qualified. (R1757:134-135;A.App.939-938.)

regarding that.” (R1765:148-149;A.App.1493-1494.) Because his analysis was reliable, challenges went to weight, not admissibility. (R1765:149;A.App.1494.)

Further:

And you know that it's not a subjective belief by unsupported speculation, which is what *Daubert* intended to keep out under the guise of expert opinion, or what has been bandied around. Ipse dixit, the Court does not find any of that in this case.

(R1765:149-150;A.App.1494-1495.)

The court’s reiterated decision was sufficient. It is clear from the extensive record and the court’s opinion “that there was an adequate basis from which to determine the reliability and validity of the experts' opinions.” *Nelson v. Tennessee Gas Pipeline Co.*, 243 F.3d 244, 249 (6th Cir.2001)(R1757:23-31,92-93,135-136,R1765:147-150;R.App.4-16;A.App. 826-834,895-896,937-938,1492-1495).

The circuit court again rejected Hyundai’s arguments after more briefing post-verdict. Reiterating the standards for biomechanical testimony in *Reference Manual on Scientific Evidence* (Federal Judicial Center, 3d ed. 2011), the court declared:

The Court is of the opinion that there was more, much more than minimal basis for Saczalski to testify in this matter, and he was subject to long and repeated cross examination regarding his opinions. Accordingly the Court is satisfied from the *Daubert* ruling, that his testimony was competent, believable and admissible.

(R1778:103-104,107-110;R.App.35-36,39-41.) The court applied the correct legal standard. Affirmance is required.

C. The court properly exercised its discretion in finding that Saczalski’s testimony was reliable.

“[T]he proponent of the testimony does not have the burden of proving that it is scientifically correct, but that by a preponderance of the evidence, it is reliable.” *Phillips v. Raymond Corp.*, 364 F.Supp.2d 730, 735

(N.D.Ill.2005)(internal quotation omitted). The court properly rejected Hyundai’s characterization of Saczalski’s opinions as “junk science,” because Saczalski applied a solid methodology and most of his basis was undisputed. (R1765:147-150,R1778:103-110;A.App.1492-1495;R.App.35-39.)

Every technical witness agreed that the seat serves as the primary protective device in a rear crash and needs to provide uniform support to the spine while preventing intrusion. (R1769:13,R1768:103,R1771:211;R1787:54,186,234-35;A.App.1800,1866,2491-2492,3247,3379,3427-3428.) They also agreed that any disruption of that uniform support while the spine is in extension, such as a fulcrum, can cause serious injury. (Id.;R1765:166;1769:12-13;A.App.1511.) As the crash happened, Vanderventer moved into the seat, “pocketing” within the frame. (R1787:185-194,R1763:226-234,R1771:237-238;R1765:163;R.App.171-176;A.App.1508,2517-2518,3378-3387.) As his spine extended, his head put force on the head restraint, causing its posts to deform forward. (R1787:186-87,R1763:191,R1765:152;R.App.167;A.App.1497,3379-3380.)

Saczalski began with a “forensic approach.” (R1787:186-188;A.App.3379-3381.) While a “visual inspection” can be sufficiently reliable, *Correa v. Cruisers*, 298 F.3d 13, 26 (1st Cir.2002), Saczalski did much more. He reviewed Vanderventer’s medical records, consulted with Kurpad, reviewed the crash data, Hyundai’s testing, biomechanics of the crash, and physical evidence, removed and de-trimmed the seats with Hyundai’s experts, compared the seats to exemplar seats, and thoroughly examined all vehicle crash damage. (R1787:186-188,235-236;A.App.3379-81,3428-3429.) These activities are appropriate for such experts. *Reference Manual*, p.933-939.

The physical evidence gained from the forensic analysis proved that the posts had permanently rotated forward 20 degrees from their design angle, creating a fulcrum at the level of Vanderventer’s paralyzing injuries. (R1763:145;R.App.146.) Hyundai’s experts did not disagree that the posts had permanently deformed, now pointing toward Vanderventer’s back, rather than away. (R1771:226-27,1773:216;A.App.2506-2507,2755.) Saczalski modeled an exemplar spine to anatomically confirm the fulcrum was near the level of Vanderventer’s injuries—a finding confirmed by Hyundai’s own testing, showing the posts lined up with T6 of a surrogate. (R661:6;A.App.81;Fig.3-4.) The hollow

tube to which the guides were welded undisputedly deformed, allowing this rotation of the posts. (Figs.5-6.)

Hyundai's expert did not dispute the foam of the seat cushion had permanent marks and gouges where it was crushed between Vanderverter's back and the posts during the crash. (R1763:134-37,R1772:8;R.App.135-138.) This physical evidence showed that the posts had formed a fulcrum in Vanderverter's back during the crash. (R.1763:134-37;R.App. 135-138.)

Using the basic biomechanics and undisputed physical evidence, Saczalski explained that, as Vanderverter put pressure on the head restraint, the posts rotated toward him, creating the injurious fulcrum. (R1763:35,R1787:187-194;R.App.121;A.App.3380-3387.) Saczalski's biomechanical causation opinions were confirmed by Kurpad's medical opinion that Vanderverter's injuries were caused by a localized force from the rear at T6. (R1763:23-24,40-41,52-53,65;R.App.118-119,123-124.)

Nothing about this was novel or complex. As Hyundai's expert stated, the rotation of the posts acted as a simple "lever," just "basic physics." (R1773:208;A.App.2747.) The court astutely observed that the science was "quite simple" and mostly agreed upon. (R1778:77-78;R.App.27-28.)

Moreover, the court acknowledged that it was impossible to know whether a similar injury had previously occurred because "every accident" is not studied, limiting the "knowledge base." (R1757:98;A.App.901.) Prior similar injuries are not required to prove a product defect or negligence. §895.047(1).

While this analysis alone would have been sufficiently reliable, Saczalski's opinions were supported by much more:

- Saczalski conducted well-accepted "finite element analysis" that identified the defective weak hollow tube and mathematically proved how it deformed allowing the posts to rotate during the crash. (R844-46,R1787:226,262-63;A.App.3419,3455-3456.) He also used this analysis to show how alternative designs would have performed

differently. (R1787:186,R1765:57-58,93,158-59;A.App.1402-1403,1438,1503-1504,3379.) “The finite element analysis methodology is reliable in the *Daubert* sense...because inputting the same data into the analysis would reliably result in the same output.” *Transcon. Gas Pipeline Corp. v. Societe d'Exploitation du Solitaire*, No.CIV.A.05-1295, 2007 WL 2712936, at*5 (E.D.La.9/13/07); *Reference Manual*, p.937. Hyundai’s expert agreed that finite element analysis is an accepted design methodology. (R.1769:160-161;A.App.2013-2014.) Hyundai’s arguments as to purported limitations with “finite element analysis,” raised for the first time on appeal,¹⁰ were “fodder for cross-examination,” not a basis for exclusion. *Falconer v. Penn Maritime*, 232 F.R.D. 37, 40-41 (D.Maine2005). Other courts have rejected nearly identical arguments for exclusion when experts relied on finite element analysis without physical testing. *Gamboa v. Centrifugal Casting Mach. Co.*, No.CV-H-14-1273, 2015 WL 9948807, at*4 (S.D.Tex.5/15/15).

- Saczalski’s opinions were based on Hyundai’s design documents, including the engineering drawing identifying ***this exact defect***. (**Fig.1**;R847.) The drawing showed that, in 2010, Hyundai was aware that rearward force on the head restraint could cause rotation of the posts toward an occupant's spine. (R1763:167-168;R.App.159-160.) Hyundai’s “novel” theory protestations ring hollow since it had identified the defect years earlier.
- Saczalski relied on Hyundai’s own testing, which also proved the existence of this defect. Reliance on testing by others is a reliable

¹⁰ Hyundai’s contention, that the finite element analysis was not sufficiently reliable because it tested the crossbar in isolation (App.Brff.30), is forfeited because it was not raised below. *State v. Cameron*, 2016 WI App 54, ¶12, 370 Wis.2d 661, 885 N.W.2d 611(R1765:144-145;A.App.1489-1490).

methodology. *Astra Aktiebolag v. Andrx Pharmaceuticals*, 222 F.Supp.2d 423, 492 (S.D.N.Y.2002) (no requirement that an expert run his own tests); *Dura Automotive Sys. Of Ind., v. CTS Corp.*, 285 F.3d 609, 612 (7th Cir.2002). One test that Saczalski relied on showed **this exact defect occurring**, with the posts deforming toward the occupant when the head restraint was loaded. (R1763:140-147,R855;R.App.141-148.) A Hyundai employee admitted that another internal test showed the hollow tube was the “weak link” in the seat system, always failing first under force. (R1763:22,159-63,R.852,R.1769:16;R.App.117,154-158;A.App.1869.) Also, during dynamic sled testing, Hyundai’s safety director observed the head restraint deforming more than the rest of the seat, confirming it failed to provide uniform support. (R1053:48.) Hyundai’s tests confirmed the reliability of Saczalski’s opinions.

- Hyundai’s strengthening of the design by adding more welds to the guides, before Vanderventer’s crash, also supported reliability. (R1763:171-172;R.App.163-164.)
- Saczalski “facilitated and performed extensive additional testing and performed additional work—including the Quebec sled testing, competitor seat comparisons, and seat headrest analyses...”¹¹ (R179:4,5,8.) Sled-testing Hyundai’s “active head restraint” design showed the posts moving **rearward** in a rear crash; Hyundai knew how to fix the defect. (1765:146;A.App.1491.) He also “performed a seat comparison evaluation, and “an exemplar seat examination.” (R179:4,5,8.) His finite element analysis and a “study of torsional rigidity” mathematically tested the defect and alternative designs. (R1493:70,94.) Although not required, Saczalski’s opinions as to

¹¹ Saczalski need not be physically present for the test. *Dura Automotive*, 285 F.3d at 612.

defect, causation, and alternative design were amply supported by testing.

Testing was not required to show basic science and principles. *Lapsley v. Xtek, Inc.*, 689 F3d 802, 815–16 (7th Cir.2012)(experts not required “to drop a proverbial apple each time they wish to use Newton's gravitational constant.”) Nor was testing required to show the exact force required to fracture Vanderventer’s spine. *Id.* (physical re-creations of accidents “not always feasible or prudent.”) The testing Saczalski relied on was more than adequate to support his reliability. The court properly deemed Hyundai’s quibbles with minutiae of tests fodder for cross-examination, not for exclusion. (R1778:103-104,108-110;R.App.25-39.) The court’s discretionary determination is well-supported.

D. Hyundai’s other arguments relating to Saczalski are meritless.

The circuit court appropriately exercised its discretion when assessing the reliability of Saczalski’s opinions, as *Pike v. Premier Transp. & Warehousing*, No.13-CV-8835, 2016 WL 6599940 (N.D.Ill.11/8/16), demonstrates. In *Pike*, the biomechanical engineer did not inspect the accident vehicles or scene to specifically calculate the forces on plaintiff’s body, did not consider medical testing, and made faulty force calculations. *Id.*, *5. He reviewed the accident report, photographs of the vehicles, medical records, deposition transcripts, and one publication; and performed a simulation of the accident and occupant kinematics. *Id.* Citing other cases declaring similar methodology reliable, the court rejected the challenge. *Id.* The circuit court properly exercised its discretion in finding Saczalski’s opinions reliable, as Saczalski’s methodology was much more extensive than in *Pike*.

Hyundai’s additional arguments to the contrary are baseless. Regardless, none would merit reversal.

Hyundai misstates what Saczalski’s finite element analysis showed (App.Brif.8)—that Hyundai’s weak crossbar deformed more than other designs. (R1787:262-263,R1765:93;A.App.1438,3455-3456;R.App.168.) It falsely

complains that Saczalski merely “eyeballed” differences between the subject seat and more robust alternative designs, ignoring his extensive review, torsional rigidity study, finite element analysis, and testing. This methodology was reliable; these were “not complicated concepts.” *Correa*, 298 F.3d at 26 (R1778:77-78,R.App.27-28.)

Hyundai misrepresents Saczalski’s analysis of its constant volume test. That test showed the rotation of the posts when the head restraint was loaded. (R1763:140,142;R.App.141,143.) Saczalski taped a transparency to his computer screen to mark the rotation of the posts during the video, then calculated the angle with a protractor. (R1763:142-143;R.App.143-144.) From the video, he could record the maximum rotation of the posts during force and the permanent deformation after rebound. (R1763:143-144;R.App.144-145.) Knowing how much the Vanderventer posts permanently rotated, he could use the test measurements in conjunction with finite element analysis to verify the maximum rotation of the posts during the crash. (R1763:144-145;R.App.145-146.) He did not “merely sketch...what he thought.” (App.Brif.39) Marks and gouges on the seat foam, made at the time of maximum rotation, supported his conclusions. (R1763:134;R.App.135.) So too, did the admissions of Hyundai’s experts, who agreed that the maximum deformation exceeded the permanent deformation.¹² (R1771:134-137,R1773:216;A.App.2414-2417,2755.)

The court found that Saczalski’s testing was reliable and appropriate. (R1765:147-150;A.App.1492-1495.) Differing opinions between competing experts as to the interpretation or significance of the tests were appropriate fodder for cross-examination and argument, not exclusion. *Morrow*, 374 F.Supp.2d at 63–64. The validity of Saczalski’s conclusions was for the jury to resolve, not the court. *Daubert*, 509 U.S. at 592.

¹² Interestingly, Hyundai failed to provide its experts with its internal testing. (R1771:210-211;1773:127-128;A.App.2667.)

Although raised by Hyundai in cross-examination, Saczalski's depiction of the seat with a generic skeleton to gauge the posts' proximity to T6 (just like Hyundai's surrogate testing confirming the same thing, **Figs.3-4**), was also reliable. (R661:6,R1763:226-32;A.App.81;R.App.171-175.) Contrary to Hyundai's arguments, it is neither possible nor relevant to calculate the precise distance from the rotated posts to Vanderverter's T6, because the body does not stay still in the crash. (R1763:226-31,239-240;R.App.171-175,181-182.) Hyundai agreed Vanderverter "ramped" or moved up the seat toward the posts. (R1771:187-188;A.App.2467-2468.) Modeling an exemplar spine or surrogate helps to judge the relative proximity of the posts. (R661:6,R1763:226-32;A.App.81;R.App.171-175.)

The circuit court correctly concluded before, during, and after trial that Saczalski's methodology was more than sufficiently reliable for admission. (R1757:23-32;134-136;1765:147-150;1778:103-104,108-110;R.App.4-12,15-16,35-39) The circuit court appropriately exercised its discretion and must be affirmed.

E. Hyundai's misleading argument that Kurpad gave unreliable "biomechanical" opinions was appropriately rejected.

Three times the court rejected Hyundai's argument that Kurpad gave unreliable "biomechanical causation opinions" as factually false and legally incorrect. (R1757:23-32,R1757:159-60,R1787:58-60,R1778:86-91;A.App.826-835,962-963,3251-3253;R.App.4-12,23-24,29-34.) Kurpad relied on Saczalski's biomechanical analysis, and gave reliable *medical causation opinions* based on:

- his unique qualifications in neurosurgery and spinal injury causation (R862,R1508:6-7,R1787:13-27;R.App.50-83;A.App.3206-3221.)
- medical records, diagnostic films, and his surgical observations, which showed the paralyzing injury was caused by a fulcrum, not DISH (R1787:27,44-47,74-75,80,125-28,R1774:38-42;A.App.2807-2811,3220,3237-40,3267-38,3273,3318-21.)

- published literature, including an article written by Hyundai's expert, showing nearly identical fulcrum fractures occurring in rear-end crashes. (R866,R1408,R1787:54-55,62-64,126-27;R.App.104-113;A.App.3247-3248,3255-57,3319-3320.)

The record amply supports the court's discretionary decision. *Seifert*, 372 Wis.2d 525, ¶¶89-92; (R1757:159-60,R1787:58-60,R1778:86-91;A.App.962-963,3251-3253;R.App.29-34.)

1. The circuit court unquestionably applied the correct legal standard while evaluating Kurpad's testimony.

Hyundai's claim that the circuit court failed to apply the "correct legal framework" or "make the statutorily-required reliability determinations" is false. (App.Brf.43-44). The court's analyzed each of §907.02's factors and extensively quoted from Wisconsin and federal precedent. (R1757:23-32,159-60,R1787:58-60,R1778:86-91;A.App.826-835,962,3251-3253;R.App.4-12,23-24,29-34.)

The court found:

- Kurpad's specialized knowledge would assist the trier of fact. (R1757:159-60;A.App.962-963: "whether the individual has scientific and/or has special knowledge that would assist, he clearly does").
- Kurpad was "clearly" well-qualified. (R1787:59-60,R1778:87;A.App.3252-3253;R.App.30: "Did he have the expertise and knowledge, skill and experience, education and training, absolutely from this court's perspective.")
- Kurpad's opinion was "based on sufficient facts or data." (R1787:59-60,R1778:87;A.App.3252-3253;R.App.30: "Was the testimony based on sufficient facts or data, yes.").
- Kurpad's testimony "is a product of reliable principles and methods." (R1787:59-60,R1757:160;A.App.963,3252-3253;R.App.24): "I don't have a problem with his methodology.")

- Kurpad “appl[ied] principles and methods reliabl[y] to the facts of the case.” (R1787:59-60,R1778:89;A.App.3252-3253;R.App.32.)

The court properly focused on the principles and methodology, not the conclusions. (R1757:25;A.App.828.) The court found Kurpad’s opinions were not “junk science.” (R1778:89;R.App.32.)

Hyundai’s argument that the court made a “global assessment” rather than specifically addressing causation ignores the court’s acknowledgement that “*Daubert* objections could be made question by question....So it's not a blanket, all-encompassing ruling....” (R1787:58;A.App.3251.) It addressed and rejected Hyundai’s **causation** challenge before, during, and after trial. (R329,R1787:57-58,R1489:9-30,R1757:159-60,R1787:58-60,R1778:86-91;A.App.26,378,962-963,3251-3253;R.App.23-24,29-34.) The court determined that Kurpad could make the “causation connection” because of his “extensive knowledge” in “traumatic spinal cord injuries” and “mechanics” of spinal injury. (R1757:159-160;R.App.23-24.)

The court properly rejected the contention that Kurpad was giving unreliable “biomechanical” testimony;¹³ rather Kurpad relied on Saczalski’s biomechanical analysis. (*Id.*: “He gets information on the biomechanics from somebody else, takes that into consideration, and makes a causation connection.”); *State v. Cadden*, 56 Wis.2d 320, 326, 201 N.W.2d 773 (1972); §907.03 (expert may rely upon conclusions made by other experts or information from a party). Kurpad confirmed three times that he relied on Saczalski. (R1787:27-28,30-31,91-93;A.App.3221-3222,3224-3225,3285-3287.) Kurpad was “told” the “sequence of events” in the crash and that the posts “formed a fulcrum,” which “explain[ed] what lacked an explanation” from a medical perspective.

¹³ Virtually all of the testimony Hyundai references is from **its own cross-examination**, which cannot be determinative. (App.Br.47-48; *Dottai v. Altenbach*, 19 Wis.2d 373, 376-77, 120 N.W.2d 41 (1963) (cannot use limited cross-examination questioning to decide a dispositive issue).

(R1787:121;A.App.3221.) Kurpad stated at least *six times* that his opinion was based on surgical observations, review of films/records, and neurosurgery experience.

(R1787:30,65,86,93,110,126;A.App.3223,3258,3280,3279,3286,3303,3319.)¹⁴

The court properly held that the “battle of the experts” was for the jury:

[T]he Court believes that the testimony was adequately met (*sic*) the Daubert standard, adequately was admitted in this case in all factors, and that Dr. Kurpad was heavily cross examined, and there was counter evidence presented by other experts, and that is clearly a jury question....

(R1778:90;R.App.33.) There was no error of law.

2. The circuit court properly exercised its discretion finding Kurpad’s causation testimony reliable.

How the court assessed reliability was discretionary. *Seifert*, 2017 WI 2, ¶90.¹⁵

a. Kurpad was uniquely qualified.

Hyundai complains that the court did not apply its preferred reliability criteria (error rate, testing, etc.). However, the court “may consider some, all, or none of the factors....” *Seifert*, 2017 WI 2, ¶¶64-65.

In medicine “experience is the predominant, if not sole, basis for a great deal of reliable expert testimony” and “courts frequently admit” experience-based medical opinions. *Id.*, ¶77. “In medicine,...[p]hysicians must use their knowledge and experience as a basis for weighing known factors along with ‘inevitable uncertainties’ to ‘mak[e] a sound judgment.” *Id.*, ¶79.

That such matters are “difficult to quantify” does not preclude a “reasonable opinion” from “medical knowledge.” *Id.* ¶¶79-80. A physician’s “education,” “repeated observations during decades of clinical experiences,” and

¹⁴ After the court rejected Hyundai’s mischaracterization of Kurpad’s causation opinion as “biomechanical” before trial, Hyundai was required to object to any testimony it believed beyond Kurpad’s experience; none were made as to causation. (R1757:23-32,R1757:159-60;R.App.4-12,23-24); §901.03(1)(a).

¹⁵ Summary affirmance is appropriate because Hyundai makes no argument it could prevail under a discretionary standard.

“numerous teaching and supervisory experiences,” render experienced-based opinions reliable. *Id.* ¶123. “A trial court should admit medical expert testimony if physicians would accept it as useful and reliable.” *Id.*, ¶81. Even Hyundai’s authority agrees “a medical doctor is generally competent to testify regarding matters within his or her own professional experience...” *Gass v. Marriott Hotel Servs.*, 558 F.3d 419, 427–28 (6th Cir.2009).

A medical expert experienced in treating similar traumatic injuries is “qualified” to provide a causation opinion. *Martindale*, 246 Wis.2d 67. For example, in *Martindale*, a surgeon and medical school professor who had published articles on temporomandibular joint injury (TMJ) was qualified to testify that whiplash from a vehicle crash caused TMJ. *Id.*, ¶¶17, 34. The surgeon did not know the speed, forces, distances, angle of collision, or specific biomechanics. *Id.*, ¶55. Even though he could not “describe exactly what happened inside [the plaintiff]’s car,” the court found the expert qualified. *Id.*, ¶55; see *Jones*, 2018 WI 44, ¶¶29-30 (the qualification factor did not change with *Daubert*).

Here, the circuit court properly relied on Kurpad’s unique experience in causation of traumatic spinal injuries. (R1757:159-60, R1787:58-60, R1778:86-91; A.App.962-963, 3251-3253; R.App.23-24, 29-34.) Even Hyundai’s counsel admitted that Kurpad is a “prolific writer and researcher” and “highly regarded.” (R1508:9) He is a world-renowned, fellowship-trained, board-certified M.D. neurosurgeon who has studied and written extensively on causation of spinal injuries. (R1787:13-27, R1774:53-54, R862; A.App.2822-2823, 3206-3221; R.App.50-83.) At the Medical College, a Level-1 Trauma Center, he is:

- Chairman, Department of Neurological Surgery
- Director, Spinal Cord Injury Center
- Co-Director, Center for Neurotrauma Research
- Director, Sled Laboratory

(R862;R.App.50-83). His surgical experience is equally extensive. (R1508:6-7,R.1787:12-27,60-74;A.App.3205-3221,3253-3267.)

Kurpad possesses unique qualifications to assess causation: “I do research in the causation as well as the biology and the repair of the spinal cord.... I have a laboratory that is dedicated for the last nearly 20 years..., for research into spinal cord injuries.” (R1787:13;A.App.3206.) Studies done under Kurpad’s direction “answer research questions that pertain to spinal injuries” that are applicable here: “findings from research in that sled and crash lab... are cardinal, foundational, and key to interpreting the mechanism of injury and how injuries are derived in all [types] of spine fractures of which Mr. Vanderverter is one.” (R1774:53-54;A.App.2822-2823). Kurpad has published on “how certain forces cause spinal trauma and related injuries” including mechanisms of spinal injury in auto crashes. (R1787:15,23-25;A.App.3208,3216-18.)

The court correctly concluded that Kurpad “clearly” possesses adequate experience, adding: “[h]e’s a respected neurosurgeon who deals with spinal cord injuries” with significant experience “researching causation...with respect to spinal cord injuries.” (R1787:59,R1778:87;A.App.3252;R.App.30.)

Kurpad also has extensive experience operating on DISH patients, including traumatic fractures. (R1508:6-7.) He has been invited by colleagues to lecture about DISH injuries, including at “the best neurosurgery program in the world.” (R1508:6-7,R1787:21;A.App.3214.) Undoubtedly, other physicians would consider his opinions reliable based on his peer-reviewed publication and speaking history. (R862;R.App.50-83). The circuit court properly relied on Kurpad’s experience. (R1778:87;R.App.30.)

b. Kurpad’s medical causation opinions had a reliable basis.

Kurpad’s primary opinion that a “fulcrum from the back of the spine” caused Vanderverter’s thoracic injuries was well-supported. (R1787:44;A.App.3237.) Kurpad understood, by relying on Saczalski’s

biomechanical analysis, that the head restraint posts formed a fulcrum during the crash. (R1787:27,31,91;A.App.3220,3224,3284.) Kurpad based his opinion on medicine, not biomechanics: “I used the evidence derived from the surgical procedure, direct observations, the anatomy of the fracture and the imaging that we discussed this morning.” (R1787:30,92;A.App.3223,3284.) His basis was as follows:

- “[T]his is a very rare and unusual fracture,” that would only have resulted from a “blow from the back from the posterior direction.” (R1787:27;A.App.3220.)
- The veins behind the spinal cord were damaged and bleeding, indicating a localized trauma from the back. (R1787:44-45,R1774:38-39;A.App.2807-2808,3237-3238.)
- There was a “divot” and “compression” of the spinal cord, which came from behind because the “divot goes back to front.” (R1787:46;A.App.3239.)
- The fracture “traverse[d] through the vertebral body, it traversed through the two strongest portions of the T6 vertebral body” showing a fulcrum, not DISH, was causal. A DISH fracture would travel through weaker bone and disc space. (R1787:74-75;A.App.3267-3268.)
- Intrusion of only 4-5 millimeters can cause a “devastating injury.” (R1787:47,70;A.App.3240,3264.)
- An article published by Hyundai’s expert, showed fulcrum fractures from rear-end crashes like this one, and “[t]he anatomy of those scans...have a similar appearance with one of them almost having the exact same appearance as this particular fracture.” (R866,R1408,R1787:54-55,62-64,126-27;R.App.104-113;A.App.3247-328,3255-3257,3319-3320.)

- Vanderventer’s thoracic injuries (bilateral rib fractures, spinal blood clotting, blood near the lung, lung pneumothorax, and vertebral fracture) were caused by “a plane, a fulcrum - that snapped his spine back,” because all were on the same horizontal level. (R1787:125-128,134;A.App.3318-3321,3327.)
- Viewing the de-trimmed seat and relying on Saczalski’s biomechanical analysis, Kurpad concluded that the posts lined up roughly with the rib fractures. (R1787:128;A.App.3321.) A reliable medical causation opinion could never calibrate the injuries and the fulcrum with mathematical precision because “a perfect scenario” does not exist “in a polytrauma situation.” (R1787:128;A.App.3321.)
- The pattern of the fracture, “retroisthesis,” showed that the spinal column was steadied at T6 while the structures above continued backward. (R1787:47;A.App.3240.) The rib cage and thoracic spine form a “cage” that is “somewhat rigid.” (R1774:38-39;A.App.2807-2808.) As a result, the posts “steadied the spine and the cage at T6, T7 and below while everything above it moved backward. And therefore, that fulcrum caused not only the thoracic spine fracture, but also caused the rib fractures and [the lung injuries]...all in the same cross sectional level.” (*Id.*)

So “putting that all together,” the “fulcrum was key in generating the anatomy of the injury that we see in Mr. Vanderventer.” (R1787:80;A.App.3273.) Based on this record, the court certainly had a “reasonable basis” to conclude that Kurpad’s causation opinion was reliable.

c. Ruling out DISH was reliable.

Medical opinions “ruling out” other possible causes are routinely admitted as “an accepted and valid methodology.” *Brown v. Burlington N. Santa Fe Ry. Co.*, 765 F.3d 765, 772 (7th Cir. 2014).

Hyundai raised *only one alternate cause*: a spontaneous DISH fracture during the crash. (R.1770:154-56,171-72;A.App.2190-2192,2208-2208). Kurpad concluded that “DISH was [a] comorbidity, not causal;” a DISH fracture was “impossible” (R1787:72,81;A.App.3265,3274):

- The surgical findings and films showed the fracture originated from *back to front* not from front to back as a DISH fracture necessarily would. (R1773:146,R1787:44-46;A.App.2685,3237-3239.)
- A DISH fracture would have broken the weaker ossifications between vertebrae and migrated across the weaker disc space rather than fracturing the strongest part of the bone. (R1787:60-61,R1774:39,43-46;A.App. 2808,3253-3254.)
- Contrary to Hyundai’s claim that Vanderventer’s DISH rendered his spine so inflexible it would snap during the crash, Kurpad observed Vanderventer’s spine was flexible when re-joining vertebrae during surgery. (R1770:160,R1787:102-03,109-112,R1774:45-46;A.App.2196,2814-2815,3295-3296,3304-3307.) Vanderventer’s chiropractic records and pre-crash activities confirmed that flexibility. (R1774:81,R1766:80,84-86,R1787:72-74,R.1456;A.App.2850,3265-3267.)
- Vanderventer’s thoracic DISH was “mild to moderate,” not severe. (R1787:67;A.App.3260.)
- Hyundai claimed that DISH made Vanderventer’s bones brittle and susceptible to “trivial trauma,” but Kurpad observed: “Mr. Vanderventer’s bone quality or the strength inherent in his bone wasn’t abnormal....[H]e did not have osteoporosis or deficient or weaker bone than normal as evidenced by the CT scan as well as my direct experience trying to put screws into the vertebrae or the spine to realign the spine and decompress it.” (R1774:40-42;A.App.2809-2811.) Kurpad observed Vanderventer’s was a “healthy” thoracic spine.

(R1787:38;R1774:38; A.App.2807.)

- Kurpad refuted Hyundai's reliance on a purported lack of soft tissue bruising: "I think there are some telltale signs of bruising, but relatively mild." (R1787:48;A.App.3265.) Also, the study by Hyundai's expert confirmed that fulcrum fractures do not necessarily cause such bruising. (R.1408;R.App.104-113.)

d. Kurpad was not required to test the injury.

Testing is a discretionary criterion, not a **requirement**. *Dhillon v. Crown Controls Corp.*, 269 F.3d 865, 870 (7th Cir.2001). Testing is not required for well-settled principles or where infeasible. *Lapsley*, 689 F.3d at 815-16; *Schmude v. Tricam Indus.*, 550 F.Supp.2d 846, 851 (E.D.Wis.2008); *aff'd*, 556 F.3d 624, 626 (7th Cir.2009).

The court correctly agreed that the testing Hyundai seeks to require would be impossible because of "ethical prohibitions about testing someone with DISH and the type of forces that were involved in this particular case." (R1778:87;R.App.30); *Bayer ex rel. Petrucelli v. Dobbins*, 2016 WI App 65, ¶30, 371 Wis.2d 428, 885 N.W.2d 173 (cannot test injuries because of "ethical considerations"). Moreover, a test with a crash dummy would never show whether this injury would occur. (R1765:88-89;A.App.1433-1434.) Such testing was also unnecessary because the physical evidence—the anatomy of the fracture, changed angle of the posts, and damaged seat foam—proved causation. (R1763:133-138;R.App.134-139.)

3. Hyundai was not unfairly prejudiced.

"The standard for unfair prejudice is not whether the evidence harms the opposing party's case, but whether the evidence tends to influence the outcome of the case by improper means. *State v. Johnson*, 184 Wis.2d 324, 340, 516 N.W.2d 463 (Ct.App.1994). "Nearly all evidence operates to the prejudice of the party against whom it is offered." *Id.* "In most instances, as the probative value of relevant evidence increases, so will the *fairness* of its prejudicial effect." *Id.*

There is no failure of proof as to medical causation because Hyundai concedes Kurpad was well-positioned to provide such testimony. (App.Brff.42-43.)

Beyond that, it is unclear what Hyundai claims was objectionable. At best, Hyundai references a few isolated responses out-of-context. Hyundai does not explain how any response resulted in prejudice. Even if Kurpad had given any “biomechanical” testimony beyond his experience (he did not), it would merely be redundant of Saczalski’s. Kurpad was cross-examined at length, and Hyundai presented contrary expert testimony. Hyundai was not prejudiced.

F. Saczalski’s causation testimony was properly admitted.

The court properly rejected Hyundai’s “specific causation” argument (R1778:103-110;R.App.35-39), which is contrary to *Martindale* and other Wisconsin authorities.

Qualification is dependent on “superior knowledge” in the subject matter. *State v. Swope*, 2008 WI App 175, ¶24, 315 Wis.2d 120, 762 N.W.2d 725. It depends on experience. *Martindale*, 246 Wis.2d 67, ¶44. Relying on the *Reference Manual*, both before and after trial, the court correctly concluded that Saczalski’s education and experience qualified him to testify, just like Hyundai’s experts. (R1757:92-93,135-136,R1778:103-110;A.App.896-897,938-39;R.App.13-16,35-39.) This court must affirm.

“[A] biomechanical expert may opine about whether plaintiff’s ‘alleged damages were caused by the conduct in question.’” *Pike*, 2016 WL 6599940, *3, quoting *Reference Manual*, at 942-43 (collecting cases). “[B]iomechanical engineers ‘are qualified to testify on injury mechanisms.’” *Id.*, quoting *McKeon v. City of Morris*, 14-CV-2084, 2016 WL 5373068, *6 (N.D.Ill.9/26/16). “While not qualified to diagnose injuries, a biomechanical engineer can ‘interpret the diagnoses of (plaintiff’s) treating physicians in order to opine on the likely mechanisms of (plaintiff’s) injuries.’” *Id.* (“the Court finds (biomechanical engineer) is not making a diagnosis or rendering a medical opinion.”).

Pike explained that courts “have allowed this testimony” because its “distinction from medical opinions is what makes such testimony useful.” *Id.* (internal quotations omitted.) *Pike* declared the expert’s causation testimony admissible because it could “assist the jury with this question by giving his conclusions about the mechanics of the accident and whether Mr. Pike’s injuries were biomechanically consistent with those mechanics.” *Id.*, *4. *Phillips* granted biomechanical engineers even more leeway in causation opinion testimony when their experience is extensive, like Saczalski’s. 364 F.Supp.2d at 739-40.

These cases accord with Wisconsin law, including *Martindale* and *Seifert*. Further, the disputed questions specifically request **biomechanical**, not medical, opinions. (App.Br.51.) The court properly rejected Hyundai’s arguments.

Wisconsin courts judge an expert’s qualification based on “superior knowledge,” considering the expert’s full range of experience. *U.S. v. Parra*, 402 F.3d 752, 758 (7th Cir.2005); *Tanner v. Shoupe*, 228 Wis.2d 357, 371, 596 N.W.2d 805 (Ct.App.1999). An expert’s “qualifications as a biomechanical engineer are precisely what qualifies him to give the testimony regarding the force on [plaintiff’s] body, the types of injury that amount of force could cause, and whether [plaintiff’s] alleged injuries were consistent with that analysis.” *Pike*, 2016 WL 659994, *2. The circuit court properly reached the same conclusion regarding Saczalski.

Saczalski was asked to perform a biomechanical analysis and assessment of the mechanism of injury and design of the seat. (R371:9.) His training and experience rendered him well-qualified to opine regarding the fulcrum and resulting injury.

Saczalski’s qualifications match those recommended for such experts in the *Reference Manual*, at 901-902. Relying on this treatise, the court correctly concluded that Saczalski was qualified. (R1757:92,135-137;R1778:103-104,107-110;R.App.13-16,35-39;A.App.895,938-940.)

Saczalski has advanced degrees in engineering disciplines. (R642:1;R1787:194-200;A.App.3387-3393;R.App.84.) His education included study in physics, chemistry, material science, fluid mechanics, math, and scientific problem-solving. (R1787:195-197;A.App.3388-3390.) Saczalski detailed his teaching, research, and work experience in crash biomechanics, crashworthiness, and seat design. (R1787:194-211;R642:1;A.App.3387-3404;R.App.84.) He has authored a multitude of publications pertaining to injuries from defective seats and seat design. (R642:4-15;R.App.87-98.)

Saczalski's education and experience exceed the *Reference Manual's* recommended qualifications to testify regarding injury causation. His research specifically related to auto seat systems, and his work related to the development and use of anthropomorphic test dummies to study injury causation, further demonstrated his superior qualifications. In addition, Saczalski's occupant kinematic analysis, assessing the movement of the occupants during the crash, tracks the *Reference Manual's* recommended practices. (R371:20.)

His other work, detailed in §§B-D above, included reviewing all relevant documents, including Vanderventer's medical records and Hyundai's testing, and his own testing. (R1787:211-234;A.App.3404,3427.) Thus, the court did not err in finding Saczalski well-qualified and that he performed the work necessary to reliably render causation opinions.

III. THE CIRCUIT COURT PROPERLY EXERCISED ITS DISCRETION IN ADMITTING EVIDENCE.

A. Recall evidence was proper rebuttal.

1. Hyundai forfeited its recall argument.

Hyundai forfeited any complaints about admission of recall evidence. Although the court permitted admission of certain recall evidence for a limited purpose (R1757:148,150;A.App.951,953), Hyundai failed to request a limiting instruction, thus forfeiting this argument. §901.06 (court gives limiting instruction

“upon request”); *State v. Hoffman*, 106 Wis.2d 185, 222, 316 N.W.2d 143 (Ct.App.1982) (failure to request limiting instruction forfeits error.)

Additionally, this court may disregard this argument because it cannot change the outcome. The recall evidence was admitted for a limited purpose *only* with respect to Vanderventer’s strict liability claim. (R1757:81;A.App.884.) This claimed error had no bearing on the negligence claim, on which the Vanderventers also prevailed (R1485:2;A.App.368), and therefore cannot affect the judgment.

2. Recall evidence was properly admitted.

Over Vanderventer’s objection, the court allowed Hyundai to rely on §895.047(3)(b)’s presumption based on compliance with Federal Motor Vehicle Safety Standards (“FMVSS”), conditioned upon Vanderventer’s admission of recall evidence to rebut it. (R1757:78-81,148;A.App.881,951.) While vehicles must comply with FMVSS to be sold, recalls are required when a “defect” exists. *Manieri v. Volkswagenwerk A.G.*, 376 A.2d 1317, 1323-24 (N.J.App.Div.1977) (Act requires manufacturer to notify owners “of any defect in the vehicle which might relate to motor vehicle safety” and mandates recalls)(internal quotation omitted.) The court observed that the same agency charged with ensuring compliance with FMVSS oversees recalls mandated by the Act. (R1766:10;A.App.1547.)

The recall evidence was not offered to establish negligence or defect, but only to rebut §895.047(3)(b)’s presumption—to demonstrate vehicles complying with FMVSS’ minimum standards can nonetheless be defective. (1757:148;A.App.951). At trial, Hyundai emphasized that FMVSS standards are “quite stringent,” and argued compliance proved its “seat in this case is not defective.” (R1776:150-151,R1769:124;A.App.1977,3129.) Recalls demonstrated that compliance with FMVSS *does not prove* a vehicle is non-defective.

The court applied the correct legal standard to the facts. §§895.047(3)(b), 903.01. The court properly concluded that recalls were “fair game” for rebutting the presumption as they showed that vehicles passing FMVSS can still have “safety-

related” defects, and Hyundai was aware of that, contrary to its trial arguments. (1757:147-148;R1763:128-129;R1767:84-85;A.App.950;R.App.130-131.) The recalls all involved instances where Hyundai, itself, recalled defective vehicles that passed FMVSS. (R1767:65;A.App.1617.) The court rejected Hyundai’s arguments under §§904.01 and 904.03, as the recalls were relevant and not prejudicial, especially since Hyundai chose to rely on the presumption. (R1757:147-148;R1778:125;R.App.17-18,44.) This was a mine-run discretionary relevancy ruling.

Nothing in §895.047(3)(b) limits rebuttal evidence to the same product or defect. It provides: “Evidence that the product... complied in material respects with relevant standards, conditions, or specifications adopted or approved by a federal or state law or agency shall create a rebuttable presumption that the product is not defective.” Rebuttal evidence is not limited (§903.01), is variable depending on the issue, and is subject to ordinary relevancy considerations.

Tellingly, Hyundai omits that the recall evidence was stringently limited to pre-2013 safety-related recalls, and that the circuit court scrutinized each recall before admission. (R1763:118-119,128-131,R1764:73,R1766:3-14,R1767:84-85;R.App.128-133;A.App.1540,1636.) Further, the cases Hyundai relies on, which do not address similar standards/mandates, are inapposite. Hyundai’s arguments that §895.047(3)(b)’s presumption is rendered meaningless is belied by the limited purpose of the evidence and Hyundai’s failure to request a limiting instruction.

Courts have permitted evidence of recall letters for similar limited purposes in other auto products liability cases. *Manieri* held that the trial court committed reversible error in barring evidence of the defective component’s recall because “the recall letters were not offered to establish the negligence or culpability of defendants,” but only to show when the defect originated. 151 N.J. Super. at 432.

Evidence of recalls is not limited to identical products. *See Crosby v. Cooper Tire & Rubber*, 524 S.E.2d 313, 319 (Ga.App.1999), *rev'd on other grounds*, 543 S.E.2d 21 (2001), *vacated in part*, 548 S.E.2d 30 (2001) (recalls

admissible not to prove defect in particular tire but to negate certain defenses); *Muniga v. Gen. Motors*, 302 N.W.2d 565, 568–69 (Mich.App.1980) (evidence of recalls of other vehicles with similar component relevant to show component could fail through fatigue); *Malcolm v. Evenflo*, 217 P.3d 514, ¶¶58-63 (Mont.2009)(permitting evidence of recall of substantially similar product).

None of the cases Hyundai cites support exclusion of such evidence. *Kilty v. Weyerhaeuser Co.*, No. 16-CV-515-WMC, 2018 WL 2464470 (W.D.Wis.6/1/18), did not consider evidence of recalls. Neither *Bizzle v. McKesson*, 961 F.2d 719, 721–22 (8th Cir.1992), nor *Lewy v. Remington Arms.*, 836 F.2d 1104 (8th Cir.1988), addressed a similar presumption or its rebuttal.

Moreover, because Hyundai chose to pursue the presumption, its complaints about the recall evidence were properly rejected. *Peeples v. Sargent*, 77 Wis.2d 612, 635, 253 N.W.2d 459 (1977) (court will not relieve party of effect of trial tactics). Hyundai also opened the door, permitting admission of certain recall evidence. (R1770:115-116;A.App.2151.) “An invited error does not work to the benefit of the litigant who issued the invitation.” *United States v. Rosby*, 454 F.3d 670, 677 (7th Cir.2006).

3. The circuit court properly exercised its discretion in admitting this limited evidence for a limited purpose.

The court correctly determined there was “no prejudice to [Hyundai].” (R1778:126;R.App.45). *Johnson*, 184 Wis.2d at 340. Evidence is often admitted for limited purposes, such as subsequent remedial measures under §904.07 or criminal convictions under Wis. Stat. §906.09. Use of evidence for appropriate, limited purposes is not unfairly prejudicial. Here the recall evidence was used solely to rebut the presumption of non-defectiveness. (R1768:151-152;A.App.1848.)

Contrary to Hyundai’s argument, Vanderverter characterized Hyundai’s record of recalls as “pretty much typical” for automakers. (R1771:215;A.App.2495.) Hyundai itself introduced evidence that, at any given

time, millions of cars on the road could have unremedied safety issues. (R1770:86-87;A.App.2122.) Given this evidence, no unfair prejudice could exist.

Hyundai's complaints about Vanderventer's closing arguments are wrong. After contending that Hyundai should have recalled its defective seat, Vanderventer mentioned that recalls "affect those FMVSS standards that we talked about," and otherwise reminded the jury of that evidence's limited purpose. (R1776:26,50,193;A.App.3005,3029,3172.)

The court properly admitted limited recall evidence and its discretionary decision must be affirmed.

B. The court did not err in admitting the AD seat design.

1. The court did not err in allowing evidence of the AD design under §895.047(4).

As to products liability, §895.047(4) permits admission of subsequent remedial measures to "*show a reasonable alternative design that existed at the time when the product was sold.*"

Saczalski testified that the AD seat was a design alternative that would not have failed as the subject UD seat did. (R1763:20-24,35-36;R.App.115-122.) The circuit court correctly allowed Vanderventer to use the AD design for this purpose. (R1787:168-170,R1778:119-120;A.App.3361-3363;R.App.42-43.)

Admitting a "preliminary sketch or outline showing the main features" prior to selling the vehicle is not required by §895.047(4). (App.Brf.61.) Regardless, there is no question that occurred. Saczalski testified, without dispute, that the AD design was the same "unibody" (one piece) design that Hyundai *manufactured and sold in the Elantra in Canada in 2007*. (R1763:23-24,R873,R884;R.App.118-119.)

Hyundai's internal documents show that the AD design concept was complete in 2007 (R1768:77,R1294:1-2,R1295:11-13;R1531:31;A.App.1774):



(**Fig.7**-design drawing from Hyundai “optimization project” (discussed below) showing the AD concept *in 2007*;R1295:11-13.) The 2017 AD seat used that identical 2007 “unibody” outer seat frame design:



(**Fig.8**;R.873; showing identical outer frame to **Fig.7**, particularly upper portion relevant here).

Because Hyundai designed and manufactured the AD concept *by 2007*, it was unquestionably admissible. Moreover, as the court pointed out, Hyundai was entitled to a limiting instruction but did not request one. (R1778:119;R.App.42.)

2. The AD design was also admissible under §904.07.

With respect to negligence, §904.07 allows subsequent remedial measures to show “feasibility of precautionary measures” and for “impeachment.” The AD

design was properly admitted to show the “feasibility” of precautionary measures –that the AD design was used by Hyundai *in the same vehicle* before and after the subject seat was manufactured.

Hyundai falsely claims that feasibility was “uncontroverted.” Addressing this exact issue at trial, Vanderverter argued that “feasibility” and the alternative design “*has not been conceded by the defense*,” and in response, Hyundai *did not* concede the issue. (R1787:163-166;A.App.3356-3359.) Even after trial, Hyundai argued that Vanderverter failed to meet his burden as to alternative design, causation, and negligence. (R1450). The circuit court observed this case was “hotly contested” and Hyundai made “every possible objection that could be made, every possible issue, whether it was relevant or irrelevant.” (R1778:52,77;R.App.26,27). Vanderverter had to meet his burden of proof and properly introduced the AD concept to do so.

In addition, the “impeachment” exception applied. (R1787:168-70;A.App.3361-3363). The circuit court in its discretion may take a “broad view of the impeachment exception” where the evidence is admissible “to impeach the theory of... defense that [the product] was safe as designed...” *D.L. by Friederichs v. Huebner*, 110 Wis.2d 581, 601, 607-08, 329 N.W.2d 890 (1983). There is no question that such evidence may be introduced to impeach a witness. *Id.*

Examples of such impeachment include:

- Hyundai claimed it was not negligent because of its safety design practices, but Hyundai scrapped the better seat design from 2007 (the AD concept in favor of the cheaper, weaker, dangerous UD seat. (R1768:14-27,74-79;R.1163:22;A.App.1711-1724,1771-1776.)
- Hyundai claimed that the subject UD seat was cutting-edge seat technology, but had chosen the AD concept/unibody as the optimal design since 2007. (*See discussion infra*). Vanderverter was entitled to explore the differences between them.

- Hyundai argued and its experts testified that the subject UD seat was “state of the art,” a “reasonably safe design,” and its competitors used a similar design. (R1771:170-71,180;A.App.2450-2451,2460.) Vanderverter was entitled to impeach by showing that Hyundai and its competitors abandoned that defective hollow tube design, returning to the “unibody” design (2007 HD Canada/2017 AD).

The AD was not admitted to generally prove Hyundai’s negligence, it was used for impeachment of defense arguments and witnesses as §904.07 allows, whether the statute is broadly construed or not. Hyundai failed to ask for a limiting instruction. (R1778:119;R.App.42.) There is certainly a reasonable basis to support the court’s discretionary decision.

3. Hyundai used the AD seat to promote its safety practices, which Vanderverter was entitled to rebut.

The “rule of completeness” allows one party to complete the record when the other party introduces evidence or makes oral statements that could “create[] an unfair and misleading impression.” *State v. Eugenio*, 219 Wis.2d 391, ¶¶39, 579 N.W.2d 642 (1998). The rule “permit[s] the presentation of additional testimony to tell the whole story that was partially told by the opposing party...[to] provide context and prevent distortion.” *Id.* ¶¶38, 41.

Hyundai used the AD to promote its design safety practices. For example, in opening statement, Hyundai displayed an Exhibit which showed how IIHS (Insurance Institute for Highway Safety) rated the generations of Elantra seats, ***including the AD***, as “good:”

Platform	IIHS Rating
HD (2006 – 2010) [ACTIVE HR]	ACCEPTABLE
MD/UD (2011 – 2016) [COMMON SEAT FRAME]	GOOD
AD (2017 – present)	GOOD

(R.606.) In touting its design safety practices, Hyundai argued that the “AD” and subject seat (“MD/UD”) were “given a higher seat rating of good,” leaving the impression that the subject seat was as safe as the AD and safer than the prior generation. (R1761:107-08;A.App1081-83.) Vanderventer was entitled to correct this misleading impression to show that the AD did not contain the same defect.

Hyundai never moved to exclude the AD seat before trial and did not object to Vanderventer’s counsel discussing or displaying it during opening. When Hyundai later moved for exclusion, the court said: “True enough, [Vanderventer’s counsel] talked about the AD, but so did [Hyundai’s counsel] in one of his exhibits here.” (R1787:6;A.App.3199).

In addition, throughout the trial, Hyundai touted its safety practices, engineering specifications, design process, and its “seat optimization project,” where Hyundai “optimize[d]” a common frame to “make the best seat we can.” (R1768:14-27,74-79;A.App.1711-1724,1771-1776). Hyundai discussed this “optimization” exhibit extensively. The “optimization project” exhibit Hyundai admitted and discussed extensively (R1768:74-77,R1294-1296;A.App.1771-1774) compared the different designs including the “optimal” AD design (fourth from the left, unibody or “one piece” design) and the subject UD seat (third from the left, “pipe” design):

번호	개념#1	개념#2	개념#3	개념#4	개념#5	개념#6
TYPE	판넬 (TWO PIECE) + 멤버	파이프	PIPE+멤버	판넬 (ONE PIECE) + 멤버	판넬 (보강 브라켓)	마그네슘
그림						

(Fig.9;1295:7.) Hyundai misleadingly claimed these optimization practices made the subject UD seat “abundantly” safe. (R1768:79,100;A.App.1797). However, the 2007 “optimization project” only optimized the “final concept selection,”—*the AD concept*. (Fig.7;R1768:77,R1294:1-2,R1295:11-13,R1531:31;A.App.1774.) Fundamental fairness allowed Vanderventer to point out that the “optimal” AD concept lacked the defective hollow tube structure of the subject UD seat. (R1763:22-24;R.App.117-119.)

4. No prejudice resulted from admission of the AD seat.

Admission of the AD seat was not unfairly prejudicial because Hyundai used it in opening and during trial, never asking for a limiting instruction. Admitting the AD design could not have prejudiced Hyundai when the 2007 HD Canada seat, which is the same design, and the 2007 optimization project showing the AD design, were admitted without objection. (R1763:19.) At best, the AD duplicated other evidence. Moreover, the AD design was only one of several alternative designs that plaintiffs introduced, all of which did not use the defective hollow tube design of the subject seat. (R1763:22-24,35-36;R.App.117-122.) Again, at best, the AD seat was redundant, not prejudicial.

C. Hyundai was not unfairly surprised by Saczalski.

The court appropriately exercised its discretion in determining that Saczalski was properly disclosed, that his trial opinions were not new or surprising, and that Hyundai had ample opportunity to conduct discovery of him. (R1778:110-112,177-179;R.App.39-41,48-49.). As the circuit court correctly

observed, no authority requires disclosure of every detail of every trial witness's testimony. Hyundai's request for a new trial based on Saczalski's purported "undisclosed opinions" was properly rejected by the court, for several reasons.

First, the scheduling order did not call for that level of detail regarding the expert disclosures.¹⁶ (R1787:7-10,R1778:110-112;A.App.3200-3203;R.App.39-41.) Relying on *Schmude* (applying the more stringent federal standard), the court correctly concluded that parties would have to "anticipat[e] every conceivable question that would be proffered against that expert" if Hyundai's argument was adopted. (R1778:110-111;R.App.38-40.) "[N]either *Daubert*, nor Rule 26, were intended to provide the kind of shield that [Hyundai] has attempted to erect upon them." *Schmude*, 550 F.Supp.2d at 851.

Second, the court concluded that the opinions were not "undisclosed" and were "were well known to the defense." (R1778:110-112,177-178;R.App.39-41,48-49.) All experts agreed that the posts would have deformed further during the crash before rebounding to their final position. Hyundai knew the deformation of the posts was a critical component of Saczalski's opinions and that he would provide testimony on those issues.¹⁷ (R1778:110-112;R.App.39-41.)

Third, all experts, including Saczalski, were permitted to continue refining details of their opinions until shortly before trial because of Hyundai's discovery malfeasance. (R1755:14-16;R1754:9-10.) The court noted that Hyundai failed to produce the necessary information for Saczalski to finally calculate the maximum deformation until dumping 12-13,000 documents shortly before his deposition. (R1765:61-62;R1787:173-179;R1778:110-112;A.App.1410-1411,3366-

¹⁶ The circuit court has exclusive discretion over scheduling and witness disclosures; detailed expert reports are not required. §802.10(3)(f).

¹⁷ The precise angle of maximum rotation was not critical, only that the posts rotated forward. (R1763:222-232;R.App.169-175.) Regardless, Saczalski's calculation was simply based on Hyundai's own test, verified by finite element analysis. (R1763:142-145;R.App.143-144.) Hyundai was not surprised by *its own test* and the finite element calculations it possessed since Saczalski's deposition. (R371:78,102.)

3372;R.App.38-40.) Hyundai also admitted knowing that Saczalski would have to perform more work after his deposition because it delayed producing witnesses and documents. (R177:78-79;R1754). None of Saczalski's trial opinions were new or surprising. (R1778:110-112;R.App.39-41.) Given Hyundai's document "dump," the circuit court correctly concluded that there was no surprise.¹⁸

Nor did the court err in concluding Hyundai should have anticipated this opinion. It confirmed the opinions Saczalski already expressed in his report and deposition. *Fredrickson v. Louisville Ladder Co.*, 52 Wis.2d 776, 784-785, 191 N.W.2d 193 (1971), held it was not prejudicial to permit "new" testimony that is "simply a confirmation" of other testimony. Hyundai knew before trial Saczalski would opine that the permanent rotation of the posts was less than the amount they rotated during the crash. Hyundai's quote of Saczalski's deposition testimony shows there was no surprise. (App.Brf.36).

The court also correctly concluded that there was no unfair prejudice to Hyundai. (R1778:110-112;R.App.39-41); *Magyar v. WHCLIP*, 211 Wis.2d 296, ¶17, 564 N.W.2d 766 (1997). Hyundai's contemporaneous admission that it knew Saczalski needed to perform post-deposition work eviscerates Hyundai's arguments. (R177:78-79). And as the court pointed out, Hyundai never requested an adjournment to address the claimed "surprise" and was able to mount effective cross-examination, undercutting any claim of error. (R1778:111-112;R.App.40-41.)

There was no error, surprise, or unfair prejudice to Hyundai. Affirmance is required.

CONCLUSION

Wisconsin courts give "significant deference to jury verdicts." *In re Deannia D.*, 2005 WI App 264, ¶9, 288 Wis.2d 485, 709 N.W.2d 879. This is

¹⁸ Though the court had imposed sanctions on Hyundai for its discovery misconduct, it ruled that it had not imposed a more significant sanction given Hyundai's continuing misconduct. (R177:131-132;1778:53-54.)

especially true if the verdict has the blessing of the circuit court, as this one does. *Buel v. LaCrosse Transit*, 77 Wis.2d 480, 487, 253 N.W.2d 232 (1977). Even if error existed (it did not), the court's finding that there was no "undue prejudice..., which would necessitate a reversal or new trial" must be respected. (R1778:177;R.App.48); *Sievert v. Am. Fam. Mut. Ins.*, 180 Wis.2d 426, 431, 509 N.W.2d 75 (Ct.App.1993), *aff'd*, 190 Wis. 2d 623 (1995)(circuit court is in the "best position to observe and evaluate the evidence" and is owed "great deference" to allow or deny a new trial). Hyundai cannot demonstrate any error, much less prejudice. The verdict should be affirmed.

Respectfully submitted this 10th day of December, 2021.

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CERTIFICATION AS TO FORM, LENGTH, AND APPENDIX

I hereby certify that this brief conforms to the rules contained in §809.19(8)(b) and (c) for a brief produced with a proportional serif font. The length of the brief is 10,994 words.

I further certify that filed with this brief is an appendix that complies with s. 809.19 (2) (a) and that contains, at a minimum: (1) a table of contents; (2) the findings or opinion of the circuit court (other than those supplied by appellants); (3) a copy of any unpublished opinion cited under s. 809.23 (3) (a) or (b); and (4) portions of the record essential to an understanding of the issues raised, including oral or written rulings or decisions showing the circuit court's reasoning regarding those issues.

I further certify that if this appeal is taken from a circuit court order or judgment entered in a judicial review of an administrative decision, the appendix contains the findings of fact and conclusions of law, if any, and final decision of the administrative agency.

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Dated this 10th day of December, 2021.

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