No. SC101091

IN THE SUPREME COURT OF MISSOURI

CHRISTOPHER M. HANSHAW,

Plaintiff/Appellant,

v.

CROWN EQUIPMENT CORPORATION,

Defendant/Respondent.

Appeal from the Circuit Court of Jackson County, Missouri
Honorable Joel P. Fahnestock, Circuit Judge
Case No. 1816-CV21440

AMICI CURIAE BRIEF OF THE NATIONAL ASSOCIATION OF MANUFACTURERS AND COALITION FOR LITIGATION JUSTICE, INC. IN SUPPORT OF DEFENDANT/RESPONDENT

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INTEREST OF *AMICI CURIAE*

Amici curiae are the National Association of Manufacturers (NAM) and the Coalition for Litigation Justice, Inc. (Coalition). *Amici*, along with their members, are concerned that allowing unreliable expert testimony in cases like this one will lead Missouri courts to effectively overturn—without any sound scientific basis—rigorous health and safety standards and regulations that have been developed over decades to help minimize risks associated with complex machines and other products that have inherent risks. Accordingly, reversing the circuit court's ruling and allowing such evidence into Missouri courts could lead to products that are less safe and cause injuries that current designs would avoid. It also could generate more spurious litigation against manufacturers based on unsound science, leading to the unjust imposition of liability.

The NAM is the largest manufacturing association in the U.S., representing small and large manufacturers in all 50 states and in every industrial sector. Manufacturing employs nearly 13 million men and women, contributes $2.9 trillion to the U.S. economy annually, has the largest economic impact of any major sector, and accounts for over half of all private-sector research and development in the nation. The NAM is the voice of the manufacturing community and the leading advocate for a policy agenda that helps manufacturers compete in the global economy and create jobs across the U.S.

The Coalition is a nonprofit association formed by insurers in 2000 to address and improve the litigation environment for asbestos and other toxic tort claims.[1] The Coalition has filed over 250 *amicus curiae* briefs in appellate cases that may significantly impact toxic tort litigation.

CONSENT OF PARTIES

Counsel for the parties consented to the filing of this brief. Therefore, *amici* file this brief pursuant to Rule 84.05(f)(2) of the Supreme Court Rules.

JURISDICTIONAL STATEMENT

Amici adopt Appellant's Jurisdictional Statement.

INTRODUCTION & SUMMARY OF ARGUMENT

This appeal presents the Court with an important opportunity to reinforce that Section 490.065 of the Revised Statutes of Missouri establishes a "gatekeeper" role for circuit court judges to ensure that expert testimony presented to juries results only from sound scientific principles. In enacting this Section, the General Assembly sought to protect Missouri courtrooms from junk science by strengthening the state's expert evidence admissibility standards and aligning them with Federal Rule of Evidence 702 (FRE 702). As a result, for expert testimony to be deemed admissible, the proffered expert must meet certain qualifications for offering the testimony *and* the testimony itself must meet the statute's indicia for reliability. Also, making these determinations are questions of admissibility for judges and, as with the Rule's federal counterpart, Missouri

[1] The Coalition includes Century Indemnity Co.; Great American Insurance Co.; Nationwide Indemnity Co.; Allianz Reinsurance America, Inc.; Resolute Management, Inc., a third-party administrator for numerous insurers; and TIG Insurance Co.

courts should make these determinations under the preponderance of the evidence standard. Otherwise, an expert's testimony would simply be too unreliable for juries to rely on in making critical design defect, causation and other complex, consequential scientific determinations. Further, in affirming the circuit court's ruling, the Court should correct any misperception that there is a liberal thrust for admissibility and establish clear guidelines for circuit courts for protecting the integrity of science in their courtrooms.

This case involves safety designs for forklifts, though robust judicial gatekeeping applies to all cases involving experts, including other types of defect and toxic tort cases. Here, Plaintiff, Mr. Hanshaw, sustained injury while operating a forklift manufactured by Crown Equipment and alleges the forklift was defectively designed. His design defect theory is based on his expert's assertion that the operator compartment should not have been open in the back. Crown's design, though, aligned with industry and government standards that open compartments are preferrable and safer for most incidents. Even still, the expert sought to testify that closing the compartment with a door would have made the forklift not defective and prevented Mr. Hanshaw's injury. The circuit court properly applied Section 490.065 and denied the admissibility of this testimony, finding it did not meet Section 490.065's reliability standards. *See* Tr. Op. at *3 ("Plaintiff has the burden of establishing that [the expert's] testimony was the product of reliable principles and methods, and therefore admissible."). Judge Fahnestock found Mr. Hanshaw did not show the expert's opinion reflected a reliable application of the principles and methods to the case. The testimony did not show the facts or data considered in forming the opinions,

how the opinions resulted from reliable principles and methods, or how such principles and methods applied to the facts. *See id*. at *5. She performed her gatekeeping duties.

In reversing this ruling, the Court of Appeals misapplied Section 490.065 in ways that undermine the intent and effectiveness of the rule. First, it wrongly asserted that so long as "the expert is sufficiently qualified" the decision to accept his or her analysis of the facts and data is not an admissibility question for the court, but a fact issue "for the *jury* to decide." Op. at *4 (emphasis added) (citing previous erroneous rulings). Second, it improperly suggested FRE 702, "on which § 490.065.2 is patterned, reflects an attempt to *liberalize* the rules governing the admission of expert testimony." *Id*. (emphasis added) (cleaned up). Neither statement could be further from the truth. The federal judiciary has taken pains—including adopting a clarifying amendment in 2023—to affirm there is no longer any liberal thrust for admissibility. Under the language the federal courts adopted in 2000 and Missouri adopted in 2017, courts, not juries, must determine that an expert's opinion "reflects a reliable application of the principles and methods to the facts of the case" and meets the Rule's standards for reliability by "a preponderance of the evidence." Fed. R. Evid. 702 Advisory Committee Note to 2023 Amendment (hereinafter "2023 Committee Note"). Treating expert opinions as presumptively admissible and dismissing challenges as questions of weight and not admissibility is reversible error. *See id.*

For these reasons, *amici* respectfully request that the Court reinstate the circuit court's order excluding the expert's testimony. The Court should reaffirm the circuit courts' gatekeeping role and instruct judges that, similar to their federal counterparts, they are to issue findings showing that a proponent of an expert's testimony has

demonstrated by a preponderance of the evidence that both the expert *and* the testimony have met the enumerated reliability standards required in Section 490.065. Ensuring the scientific integrity of product defect claims is particularly important where, as here, the design has undergone extensive scientific review by standard-setting organizations and government agencies to manage the specific safety risk at issue in the litigation.

ARGUMENT

I. THE COURT SHOULD HOLD MISSOURI REQUIRES JUDGES TO DETERMINE THAT EXPERT TESTIMONY HAS MET ALL OF SECTION 490.065'S RELIABILITY STANDARDS BY A PREPONDERANCE OF THE EVIDENCE TO BE ADMISSIBLE

The Missouri General Assembly enacted Section 490.065 in 2017 to strengthen the state's expert evidence admissibility standards so that judges can safeguard the scientific integrity of their courtrooms. It appreciated, as federal courts have explained, that expert scientific testimony "can be both powerful and quite misleading." *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579, 595 (1993). So, it adopted the language of FRE 702 to give Missouri judges the same directive and tools as the federal judiciary for ensuring that expert evidence can be admitted only when presented by a qualified expert and only after the proponent has shown the court that the testimony is reliable. Only then can expert testimony truly help the trier-of-fact make its factual determinations. Thus, rather than allow most scientific testimonies to go to a jury, which had been the practice in Missouri (and earlier in the federal courts), the General Assembly made circuit court judges gatekeepers, requiring them to assess an expert's credentials and assertions independently and admit only testimonies meeting the statute's reliability standards. In short, having credentials and offering conclusions, as occurred here, is no longer enough.

Specifically, since 2017 proponents of expert testimony have been required to establish their qualifications and prove *to the court* that each of the opinions offered in the testimony meets the following four reliability standards to be admissible:

> (a) The expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
>
> (a) The testimony is based on sufficient facts or data;
>
> (b) The testimony is the product of reliable principles and methods; and
>
> (c) The expert has reliably applied the principles and methods to the facts of the case.

Section 490.065(2). Further, when the federal judiciary adopted this same language in 2000 to tighten its admissibility standards, it stated "the admissibility of all expert testimony is governed by the principles of [Federal Evidence] Rule 104(a)," meaning a sufficient showing of reliability requires that the "pertinent admissibility requirements are met by a preponderance of the evidence." Fed. R. Evid. 702 Advisory Committee Note to 2000 Amendment (citing *Bourjaily v. United States*, 483 U.S. 171 (1987)).

In recent years, the federal judiciary—administratively and through judicial opinions—has reaffirmed these requirements. Several years ago, studies showed that numerous federal courts, similar to the Court of Appeals below, applied outdated admissibility concepts and were not invoking FRE 702 properly. *See, e.g.,* Kateland R. Jackson & Andrew J. Trask, *Federal Rule of Evidence 702: A One-Year Review & Study of Decisions in 2020* (Sep. 30, 2021) (finding errors in every federal circuit). Specifically, these courts applied "more lenient standards than Rule 702 permits," often citing obsolete or mistaken case law suggesting, as here, that courts are to liberally allow in evidence and

that assessing the reliability of the expert's opinions are issues of weight for juries and not admissibility for judges. David E. Bernstein, *The Misbegotten Judicial Resistance to the Daubert Revolution*, 89 Notre Dame L. Rev. 27, 30 (2013). This led the federal Advisory Committee on Evidence Rules to issue a clarifying amendment in 2023 to call attention to this misapplication of FRE 702 and reinforce its longstanding reliability principles. *See* 2023 Committee Note. Congress enacted these amendments into law.

This federal experience should guide this Court, which typically finds such on-point federal precedent "persuasive." *State v. Williams*, 548 S.W.3d 275, 285 (Mo. banc 2018). Of importance here, the amended FRE 702 speaks to the same two misgivings at issue in this case. First, it "clarif[ied] and emphasize[d] that expert testimony may not be admitted unless the proponent demonstrates to the court that it is more likely than not that the proffered testimony meets the admissibility requirements set forth in the Rule." 2023 Committee Note. Second, it "emphasize[d] that each expert opinion must stay within the bounds of what can be concluded from a reliable application of the expert's basis and methodology." *Id.* The Rules Committee explained it was particularly focused on "overstatements," as here, where experts assert conclusions "beyond what can be supported by the underlying science." *Id.* No longer can "shaky" evidence be put before juries or courts cite outdated case law as broadening the scope of admissible expert testimony. *See* Mark A. Behrens & Andrew J. Trask, *Federal Rule of Evidence 702: A History and Guide to the 2023 Amendments Governing Expert Evidence*, 12 Texas A&M L. Rev. 43, 50 (2024).

In the past few years, federal appellate courts have reinforced these requirements. They appreciated the 2023 amendments underscored—not substantively changed—a trial court's responsibilities to weed out unsound expert testimony. During the pendency of the amendments, the Fourth Circuit cited the Rules Committee's work to emphasize trial courts' "gatekeeping function" over science. *Sardis v. Overhead Door Corp.*, 10 F.4th 268, 283 (4th Cir. 2021) ("the importance of [the] gatekeeping function cannot be overstated"). It instructed trial courts to "make explicit findings . . . as to the challenged preconditions to admissibility." *Id.* The Sixth Circuit echoed this ruling, affirming that the gatekeeping function means FRE 702's indicia of reliability goes to admissibility, not weight, of the evidence. *See In re Onglyza (Saxagliptin) and Kombiglyze (Saxagliptin and Metformin) Prods. Liab. Litig.*, 93 F.4th 339, 347-48 (6th Cir. 2024).

The Court may also find value in a recent ruling from the Delaware Supreme Court, which faced the same question last month and issued the type of ruling appropriate here. As here, the Delaware high court was called on to correct a lower court's ruling that Delaware's expert evidentiary rules—which also are modeled after the federal rules—follows a liberal thrust favoring admission. *See In re Zantac (Ranitidine) Prods. Liab. Litig.*, 2025 WL 1903760, at *10, – A.3d – (Del. July 10, 2025) (hereinafter "*In re Zantac*"). In interpreting the state's evidentiary rules, the court found the 2023 federal rule amendments "persuasive" because they were adopted "to clarify the rule without changing its substance" and to affirm that "trial courts are required to vigorously exercise their gatekeeping function." *Id.* at *9, *24 ("[W]e view the committee's guidance as important material to consider in reviewing our trial courts' decisions and providing

guidance to litigants."). It then directed trial courts to "not approach a challenge to expert testimony with any presumption toward admissibility"; to not "abdicate its gatekeeping role by passing crucial questions of sufficiency and reliability to the jury"; and that any notion that even "close calls go to the jury" is "not the correct standard." *Id*. at *18.

The Court of Appeals erred in stating that Section 490.065, or FRE 702, "reflects an attempt to liberalize" the admissibility of expert evidence and that Missouri circuit courts are "not required to consider the degree to which" the rule's requirements are met. Op. at *4 (cleaned up). The legislative language and intent of Section 490.065, as well-documented by the federal judiciary in applying this rule's federal counterpart, counsel just the opposite. In its opinion, this Court should clarify the intent and application of Section 490.065, which is to tighten the State's expert evidence standards and make courts gatekeepers for protecting science in their courtrooms. It also should join the federal courts in enforcing the preponderance of the evidence standard.

II. THE CIRCUIT COURT PROPERLY APPLIED SECTION 490.065 IN DETERMINING THAT PLAINTIFF DID NOT MEET ITS BURDEN TO SHOW THE PROFFERED EXPERT TESTIMONY MET MISSOURI'S STANDARDS FOR ADMISSIBILITY

In this case, the circuit court judge properly exercised her gatekeeping function. She took briefings from the parties, held a hearing on the proffered testimony, and issued a ruling making explicit findings on the scientific rigor—or lack thereof—of the expert's methodology. In short, she found the expert violated the foundational rule of expert evidence: he did not produce methodology or objective criteria that can be assessed for reliability. "Failure to thoroughly explain methodology to support expert opinion weighs in favor of exclusion." Tr. Op. at *5-6; *see also Dhillon v. Crown Controls Corp.*, 269

F.3d 865, 870 (7th Cir. 2001) (without a detailed explanation of methodology, a court cannot assess a testimony's reliability). The judge did not abuse her discretion.

The basic obligation of a plaintiff in a design defect case, including this one, is to show that the product is defective, *i.e.*, it is unreasonably dangerous as designed, and that this defect caused the injuries alleged. When the defect the plaintiff alleges falls outside the routine knowledge of the average juror—which is common in engineering and other complex product cases—the plaintiff must put forth expert evidence identifying the defect and making the causal link to the injury. *See Hagen v. Celotex Corp.*, 816 S.W.2d 667, 670 (Mo. banc 1991). This expert must provide the court with the methodology for its scientific conclusions, including any confirmatory testing, studies, publications, third-party validation, or other facts and data that buttress the reliability of the methods applied and the conclusions drawn. *See Gebhardt v. Am. Honda Co., Inc.*, 627 S.W.3d 37, 45 (Mo. Ct. App. 2021). Testing is generally considered the *sine qua non* of safety because regulatory regimes are often premised on ensuring product designs are capable of being tested. An expert's methodology, whether based on testing or otherwise, must be presented to allow courts to produce findings that it meets Section 490.065 requirements.

Here, the expert based his design defect conclusion on the theory that a different design—one enclosing the operator compartment with a spring-loaded or latched door—would have been safer overall and would have prevented Mr. Hanshaw's injury. For this theory to be deemed admissible, the expert had to provide the court with the methodology he used to arrive at these conclusions. Without this foundation, a jury would lack the background needed to make a proper determination as to whether the forklift's design

was actually defective and caused Mr. Hanshaw's injury. This is particularly important here because, as detailed below, standard-setting organizations and government regulatory bodies have consistently found that open compartments—not one closed with a door—are safer because an operator can more easily escape during an incident.

The circuit court found the expert's testimony bereft of such a methodology. The expert provided no material comparing the safety of his alternative design with the current model, generally or under the facts of this case. He "conducted no injury potential testing on his proffered design alternatives." Tr. Op. at *5. "No evidence was presented that he performed any tests to see if the alternative designs are both economically feasible and just as safe or safer than the model without the door." *Id.* "There is no evidence the proffered alternative designs have been subject to peer review, and nothing shows they are supported by the relevant scientific and engineering communities, standard organizations, or government authority." *Id.* And, the expert "cannot point to any door design or bumper he has developed, prototyped, or tested, or any testing to measure the injury potential to stand-up forklifts in off-dock and tip-over accidents on forklifts equipped with a door or bumper." *Id.*

Further, with respect to the data he cited regarding accidents and injuries that were derived from OSHA statistics related to forklifts, "he did not demonstrate how he used the data, how the data supported his opinions, and whether his use of the data was acceptable in the scientific community." *Id.* Of additional concern, Judge Chapman noted in his dissent in the Court of Appeals opinion that "this statistic is ***not*** an OSHA statistic, but a statistic that was created by [the expert] based on assumptions and undisclosed

subsets of data that were apparently draw from OSHA's database in accordance with an undisclosed methodology." As a result, Judge Thomson noted in a separate dissent, "[w]e have nothing but the [expert's] ipse dixit statement" that the forklift is defective.

The Court of Appeals majority set aside the lack of any methodology for the expert's alternative design defect theory by asserting that, under the law applicable to this case, an alternative design is not needed to prove defect. *See* Op. at *14. That may be true, but that is not the question before this Court. It was Mr. Hanshaw who based his design defect case on the assertion that the availability of an alternative design—a forklift with a rear compartment door—made the design of the forklift he used—which did not have such a door—defective. He then proffered an expert who sought to testify as to the existence of this alternative design and give the jury an engineering-based rationale for why installing such a door would make the forklift safer and, consequently, made the open compartment design defective. The circuit judge was charged with determining whether these specific theories met Section 490.065's reliability standards. She found they did not, making them inadmissible. If Mr. Hanshaw presented non-alternative design-based defect theories, she would have had to assess those. He did not.

The Court should hold that the circuit court did not abuse its discretion in excluding this expert testimony. *See State v. Minor*, 648 S.W.3d 721, 773 (Mo. banc 2022) ("A [circuit] court abuses its discretion only if its decision to admit or exclude evidence is clearly against the logic of the circumstances then before the court and is so unreasonable and arbitrary that it shocks the sense of justice and indicates a lack of careful, deliberate consideration."). It also should take this opportunity to instruct circuit

courts on the proper inquiry to undertake in determining whether to admit expert testimony. As the circuit court sought to do here, they must be able to set forth findings that the proponent of the testimony met its burden by showing the testimony, including the methodology, satisfies each Section 490.065 requirement. Such a rule places the burden, not on the courts, but on the proponent of the evidence. "An expert who cannot explain to the court's satisfaction why her method is reliably applied should not be permitted to opine for a jury." *In re Zantac*, 2025 WL 1903760, at *33.

III. MISSOURI'S RELIABILITY REQUIREMENTS HELP ENSURE LIABILITY DOES NOT IMPROPERLY UNDERMINE SAFETY STANDARDS AND LEAD TO PRODUCTS THAT PROVIDE FEWER BENEFITS, ARE LESS SAFE, AND COULD CAUSE MORE HARM

Of particular concern here, overturning the circuit court's proper application of Section 490.065 would allow dubious theories to overtake the independent forklift safety determinations developed by standard-setting organizations and federal regulators. As the U.S. Supreme Court has explained, science in the courtroom must employ "the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999). Here, Congress has charged OSHA with conducting a thorough scientific review of industrial forklift design requirements, and OSHA requires employers to meet design requirements established by the American National Standards Institute (ANSI). *See* 29 C.F.R. § 1910.178(a).

The applicable national safety standard, known as ANSI B56.1, has been developed over more than 70 years to balance safety concerns with forklifts. *See* Brad Kelechava, *ANSI B56.1-2020: Safety Standard for Low, High Lift Trucks*, Am. Nat'l Standards Inst., Dec. 3, 2020 (discussing latest version of standard). The standard

includes "safety requirements relating to the elements of design, operation, and maintenance of low lift and high lift powered industrial trucks controlled by a riding or walking operator." B56 Standards, B56.1, Indus. Truck Standards Dev. Found., at https://www.itsdf.org/cue/b56-standards.html. It provides that "[s]tand-ups, rear entry end control, narrow aisle, and reach trucks *shall be designed with open operator compartments* to permit easy ingress and egress in the event of an imminent tipover or off-the-dock accident." B56.1—2004 Safety Standard § 7.41 (emphasis added).

The American Society of Mechanical Engineers (ASME) and ANSI administer the standard and coordinate standardization programs for forklifts and other industrial trucks. A dedicated ASME/ANSI B56.1 Subcommittee promulgates standards for forklifts. This subcommittee includes a diverse membership of entities involved in the forklift industry, including OSHA and other government agencies, labor unions, trucking associations, the military, manufacturers, purchasers, insurers, independent engineering consultants, and private standard-setting organizations. It has twice—first in 1987 and again in 1996—studied and rejected proposals to require that stand-up rider forklifts be equipped with any type of door. *See Ortiz v. Yale Materials Handling Corp.*, 2005 WL 2044923, at *9 n.8 (D. N.J. Aug. 24, 2005) ("Each time there was a vote with respect to such proposal, [the proponent's] design only received a vote of 1 or 2—one vote coming from . . . a chief engineer with [the proponent's] company, who was instructed to vote in . . . favor").

Moreover, the subcommittee, OSHA, and other government authorities studying forklift safety, including the National Institute for Health and Occupational Safety (NOISH), have never recommended doors on stand-up rider forklifts. *See* Preventing

Injuries and Deaths of Workers Who Operate or Work Near Forklifts, NIOSH Alert, DHHS (NIOSH) Pub. No. 2001-109, *available at* https://www.cdc.gov/niosh/docs/2001-109/default.html#print (recommending operators "Exit from a stand-up type forklift with rear-entry access by stepping backward if a lateral tip over occurs"). They have instead reached a broad consensus that operators of stand-up rider forklifts have the best chance to avoid serious injury in tipover and off-the-dock accidents by exiting the machine without a door. More recent studies testing that consensus have confirmed this position. *See, e.g.,* John F. Wiechel & William R. "Mike" Scott, *Analysis of Stand-Up Forklift Operator Injuries in Off-the-Dock and Tip-Over Incidents With a Latched Door on the Operator Access Opening*, ASME J. Risk Uncertainty Part B, vol. 2, issue 2 (June 2016), Paper No: RISK-15-1021, *available at* https://doi.org/10.1115/1.4031275 (testing placement of forklift door on entrance to operator's compartment and reporting higher risks of certain injuries, including injury caused by entrapment).

Although the Court of Appeals recognized the expert testimony here is at odds with ASME/ANSI safety standards, it stated that the "fact that Expert's opinions may be contrary to the views of government regulators and engineering organizations is an issue for the jury to weigh." That may be true *only* if the expert can demonstrate that his or her alternative theories are *reliable*, *i.e.*, they meet all Section 490.065 requirements by a preponderance of the evidence. Otherwise, a jury may require manufacturers to shift to a less safe alternative design based on testimony that is more likely wrong than right. This predicament exemplifies the purpose and need of a circuit court's gatekeeper function.

Allowing juries to deem safe designs defective based on unreliable expert evidence would significantly undermine product and workplace safety. Jurors may falsely assume the expert's testimony is credible, particularly when the expert devises a plausible-enough-sounding theory for finding a source of compensation for people who have suffered injuries. Studies have shown that juries often fill the voids in experts' testimony with sympathy and hindsight bias, regardless of the effectiveness of cross-examination or the veracity of opposing expert evidence. *See* David P. Sklar, *Changing the Medical Malpractice System to Align with What We Know About Patient Safety and Quality Improvement*, 92 Acad. Med. 891, 891 (2017) (explaining juries may seek to "find someone to blame" to compensate a sympathetic plaintiff).

Jurors also may not appreciate that finding a product defective is not just a compensatory decision with respect to the plaintiff in the case; it instructs the manufacturer to change the product to address the "flaw." *See Riegel v. Medtronic, Inc*., 552 U.S. 312, 328-29 (2008) (observing "tort duties of care" under state law "directly regulate" a product). Redesigning a safe and effective product based on testimony that has not been shown—particularly by a preponderance of evidence—to be reliable could lead to products that are less safe, provide fewer benefits, and could cause more harm. The new design could *increase* risks, particularly those risks—here, such as injury from a tipping forklift—not at issue in the litigation.

The impact of this case, therefore, is much broader than the parties here. Other federal agencies, including the Environmental Protection Agency (EPA), Food and Drug Administration (FDA) and National Highway Transportation Safety Administration,

undertake similar science-based assessments of product designs and warnings that have potential, often inherent, risks. For example, EPA employs comprehensive data requirements when conducting rigorous scientific analysis of whether a proposed pesticide use will cause "unreasonable adverse impacts" to humans or the environment. *See* 40 C.F.R. Part 158. Pharmaceutical medicines are subject to considerable scientific analysis and review by the FDA in determining whether they are safe and effective. *See* 21 U.S.C. § 355 *et seq*. (requirements for new drug applications). The same is true for vehicles, which are regulated pursuant to Federal Motor Vehicle Safety Standards (FMVSS). *See* 49 C.F.R. Part 571. These agencies help balance competing risks because, often, solving one potential adverse outcome can make a product riskier elsewhere. Such scientific decisions should not be undone through testimony that fails to take these other risks into consideration, and does not reliably assess the risks that it does review.

This Court should affirm the trial court's proper application of Section 490.065. Because experts are permitted to reach conclusions on the ultimate issue in a case, their conclusions must flow from a well-articulated methodology that is supported by sound scientific principles, especially when their opinions counter longstanding, repeatedly reaffirmed safety standards that are based on scientific testing.

CONCLUSION

For these reasons, *amici* respectfully request that this Court reinstate the circuit court's order excluding the expert testimony in this case.

Respectfully submitted,

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Dated: August 11, 2025

CERTIFICATE OF COMPLIANCE

The undersigned hereby certifies that this Brief: (1) includes the information required by Rule 55.03; (2) complies with the requirements contained in Mo. R. Civ. P. 81.18 and 84.06; and (3) contains 4,684 words.

Respectfully Submitted,

/s/ Jennifer J. Artman
Jennifer J. Artman, #63692

Dated: August 11, 2025

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and accurate copy of the foregoing was served through the Missouri Supreme Court's electronic filing system on August 11, 2025 to the attorneys of record for all parties.

/s/ Jennifer J. Artman
Jennifer J. Artman, #63692

Dated: August 11, 2025