

STATE OF MICHIGAN  
IN THE SUPREME COURT

CHANCE LOWERY,

Plaintiff-Appellee,

v.

ENBRIDGE ENERGY LIMITED  
PARTNERSHIP and ENBRIDGE ENERGY  
PARTNERS LP,

Defendants-Appellants.

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Supreme Court Case No.: 151600

Court of Appeals Case No.: 319199

Calhoun CC Case No. 2011-003414-NO

**AMICUS CURIAE BRIEF  
OF THE MICHIGAN MANUFACTURERS ASSOCIATION**

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### Statement of Questions Presented

- I. Is a plaintiff in a toxic-tort case required to present expert testimony regarding general and specific causation?

Plaintiff-Appellee answers no.

Defendant-Appellant answers yes.

The Court of Appeals answered no.

Amicus curiae the Michigan Manufacturers Association (MMA) answers yes.

- II. Did the plaintiff here sufficiently establish causation to avoid summary disposition under MCR 2.116(C)(10)?

Plaintiff-Appellee answers yes.

Defendant-Appellant answers no.

The Court of Appeals answered yes.

The MMA answers no.

## Introduction

Imagine walking up to the average Jim or Julia on the street and asking whether airborne xylene can cause an avulsion of the short gastric artery. Their blank stares answer the question presented in this appeal: Is expert testimony required to establish causation in a toxic-tort case?

The reason the answer to that question is yes flows from deeply rooted principles of Michigan law. While this case presents the first opportunity for the Court to address the standards for toxic-tort causation specifically, the analytical framework for determining whether expert testimony is required is well-traveled ground. The general rule is that expert testimony is required whenever the matter at issue is “not within the common experience and understanding of jurors.” See *Krohn v Home-Owners Ins. Co.*, 490 Mich 145, 167 n 59; 802 NW2d 281 (2011). *Woodard v Custer*, 473 Mich 1; 702 NW2d 522 (2005). In some subject areas, this means expert testimony will almost always be required. Most jurors are not medical doctors, for example, so it is not within their common experience and understanding how certain medical procedures are to be performed and whether the procedures caused the injuries in question. Thus, for over a hundred years the rule in Michigan has been that “[o]rdinarily, the testimony of experts is required to determine the cause of physical ailments.” See *Lindley v City of Detroit*, 131 Mich 8, 10; 90 NW 665 (1902); *Woodard*, 473 Mich at 6 (“[g]enerally, expert testimony is required in medical malpractice cases”).

Toxic-tort cases present a straightforward application of this general Michigan rule. Most jurors are likewise not toxicologists or chemists, so it is not within their “common experience and understanding” whether, say, airborne compounds in oil fumes cause unabating migraines, vomiting, or arterial avulsions. Indeed, for this reason courts across the country have adopted a general rule that a plaintiff in a toxic-tort case must present expert testimony supporting the causal link between the plaintiff’s exposure to a toxic chemical and the injury.

Courts have refined the rule to require a plaintiff to introduce expert testimony establishing both “specific” and “general” causation—that is, that the toxic substance is “capable of causing” (general causation) and “did cause” the injury (specific causation). See, e.g., *Pluck v BP Oil Pipeline Co*, 640 F3d 671, 677 (CA 6, 2011) (applying Ohio law).

Where courts have struggled is with permitting exceptions to this general rule without letting the exceptions swallow the rule. There are rare toxic-tort cases where it is completely obvious to any layman that the toxic chemical caused the injury. When someone drinks a glass of bleach and immediately starts vomiting and convulsing on the floor. When someone falls in a puddle of sulfuric acid and immediately breaks out in rashes and burns. Jurors don’t need a Ph.D. in chemistry to know that the toxin caused the injury.

But this case highlights the danger of a flickering, fuzzy-line rule. The Court of Appeals majority here followed its earlier decision in *Genna v Jackson*, 286 Mich App 413, 418; 781 NW2d 124 (2009), which “decline[d] to adopt” a general rule that expert testimony is required in a toxic-tort case. The majority here took that to be an endorsement of a default rule that expert testimony is generally *not* required in toxic-tort cases. The majority then applied that rule in a case plainly not of the exceptional bleach-or-acid variety—where there was a significant lag between the alleged exposure and the symptoms, where there were reasonable alternative explanations for the symptoms, and where there were countless other question marks in the causal chain that would invite the jury to simply speculate about complex scientific matters of causation. Ordinary jurors may have some sense that oil fumes smell bad and may make someone nauseated, but is it in a juror’s common experience and understanding whether airborne compounds in the fumes can cause gastric arterial avulsions? Or what intensity and frequency of exposure is toxic? Five parts per million for five minutes? 5,000 parts per million for five

decades? Somewhere in between? If someone is exposed to 100 parts per million for ten days and then has an arterial avulsion a week later, is it within the jury's common experience and understanding whether the exposure caused the avulsion?

This Court's cases again point the way on how to account for the truly exceptional case without eroding the general rule. The Court has addressed this issue in the medical context, for example, and has held that the only exception to the general rule that expert testimony is required is when the link between the negligence and the injury is "so manifest" that it is "within the common knowledge and experience of the ordinary layman." See *Lince v Monson*, 363 Mich 135, 141; 108 NW2d 845 (1961). When the surgeon leaves a needle inside the patient, for example. See *LeFaive v Asselin*, 262 Mich 443; 247 NW 911 (1933). Or sews a surgical sponge inside someone. See *Winchester v Chabut*, 321 Mich 114; 32 NW2d 358 (1948). The jury doesn't need an M.D. to know that a patient shouldn't leave the hospital with needles or sponges sewn inside her, or that it was the needle and sponge that likely caused her abdominal pain on the ride home. But except in these exceptionally rare cases where the thing speaks for itself—where there are no other reasonable explanations, and where any Jim or Julia can see the causal link between the negligence and the injury—expert testimony is required. *Woodard*, 473 Mich at 6.

These established principles of Michigan law reveal a controlling rule applicable to *all* cases in Michigan. This Court does not need one set of standards that applies in medical-malpractice cases, another that applies in product-liability cases, and yet another that applies in toxic-tort cases. The general rule is that expert testimony is required in *any* case in which the causation inquiry turns on scientific, technical, or other specialized knowledge that is outside the common experience and understanding of an ordinary juror. Applying that general rule in the toxic-tort context, because the causation inquiry in toxic-tort cases will almost always involve

scientific, technical, or other specialized knowledge outside the common experience and understanding of the lay juror, expert testimony is required to establish causation in a toxic-tort case. Specifically, as other jurisdictions applying this rule have held, to have a jury-submissible case that can survive a motion for summary disposition, the plaintiff must produce expert testimony establishing both general and specific causation. Thus, as the converse to this rule, expert testimony is not required only if the causal link between exposure to the toxin and the plaintiff's injury is so manifest that it is within the common experience and understanding of the lay juror. This will be the case only where injury immediately follows exposure, where it is common knowledge that the hazardous substance can cause the symptoms the plaintiff suffered, and where there are no reasonable alternative explanations for the symptoms. Otherwise, expert testimony is required.

The Michigan Manufacturers Association (MMA) submits that this is a sensible rule that flows from well-ingrained principles of Michigan law, and urges the Court to adopt it expressly here. Applying the rule to this case, whether airborne compounds from oil fumes can cause rupture of a short gastric artery a week or more after exposure is not a matter within the common experience or understanding of an ordinary juror. Thus the plaintiff was required to produce expert testimony establishing the causal link. He failed to do so, and therefore his claims fail as a matter of law. This Court should vacate the Court of Appeals' decision and reinstate the circuit court's grant of summary disposition to the defendant.

#### **Statement of Interest of Amicus Curiae**

Amicus curiae the Michigan Manufacturers Association (MMA) is an association of Michigan businesses. The MMA was organized and exists to promote the interests of Michigan businesses and of the public in the proper administration of laws, to study matters of general interest to its members, and otherwise to promote the general business and economic climate of

the State of Michigan. A significant aspect of the MMA's activities involves representing its members' interests before the state and federal courts, legislatures, and administrative agencies. Through effective representation of its membership before the judicial, legislative, and executive branches of government on issues of importance to the manufacturing community, the MMA works to foster a strong and expanding manufacturing base in Michigan. The MMA appears before this Court as a representative of approximately 2,500 private business concerns, all potentially affected by the dispute in this case.

The interests of manufacturers are coextensive with the interests of the citizens of Michigan. Simply put, manufacturing is the backbone of Michigan's economy. Manufacturing generates 15.1 percent of the gross state product, comprises 13.9 percent of total nonfarm employment, and employs 602,500 people in Michigan. And growing: From June 2009 through April 2016, employment in Michigan's manufacturing sector rose by 169,600 jobs (39.2 percent), and 34.4 percent of nonfarm jobs added in Michigan since the recession ended have been in the manufacturing sector. Michigan has been the national leader in new manufacturing job creation since the recession ended, outpacing neighboring states by more than 50 percent.

Manufacturing has always contributed substantially to Michigan job growth and economic output, and the promotion of a thriving manufacturing sector in Michigan is of the utmost importance to the future economic survival of this state. The issues in this case therefore substantially affect not only the manufacturing sector, but also the economy of the State of Michigan as a whole, including employment levels, economic growth, and the ability of Michigan industries to compete in the regional, national, and global marketplaces.

The issues before the Court are of critical concern for Michigan manufacturers. Manufacturers are often targeted by plaintiffs seeking compensation for injuries allegedly caused

by exposure to a chemical or other substance used in or created as a byproduct of a manufacturing process. Expert testimony is essential in such cases to explain to the jury what is and is not known about how the particular substance in question does or does not affect the human body, as well as what can and cannot be said about whether the substance caused the plaintiff's injury. As commentators have noted, the "economic costs to the companies involved in toxic tort litigation can . . . be enormous." David Bernstein, *Getting to Causation in Toxic Tort Cases*, 74 Brooklyn L Rev 51, 74 (2008). And "as tempting as it may be for courts to relieve plaintiffs claiming grievous injuries of their burden of proof against often unsympathetic corporate defendants, it is bad policy as well as bad law." *Id.* "The result is a grave risk of driving safe, useful products off the market, stifling innovation, sowing fear and confusion among consumers, and creating massive economic burdens for innocent companies." *Id.*

If the Court of Appeals opinion here stands, then manufacturers likely will experience an increase in lawsuits relying on speculative causal claims unsupported by any meaningful scientific evidence, like the plaintiff's here. Under the Court of Appeals' analysis, juries will repeatedly be asked to decide complex questions of causation that turn on scientific issues well beyond the understanding of laypeople. If reliable expert testimony on such questions is not required, verdicts will be based on improper speculation or purely emotional reactions to the plaintiff's injuries. The end result will be an increased cost of doing business in Michigan, the disappearance of beneficial goods from the Michigan market, and the appearance of an unattractive and costly venue for all employers looking to do business here.

#### **Statement of Facts**

The MMA adopts the statement of facts set forth in the appellant's appeal brief.

#### **Standard of Review**

The MMA adopts the standard of review set forth in the appellant's appeal brief.

## Argument

### I. THIS COURT SHOULD HOLD THAT EXPERT TESTIMONY IS REQUIRED TO ESTABLISH CAUSATION IN A TOXIC-TORT CASE

#### A The long-established rule in Michigan is that if an element of a claim turns upon issues outside the common experience and understanding of ordinary jurors, expert testimony is required to establish that element.

Toxic-tort claims are a subset of general negligence claims in Michigan. In any negligence case, the plaintiff must prove, among other things, that the defendant's negligence "was a proximate cause of the plaintiff's injuries," which requires the plaintiff to prove both cause in fact and legal cause. *Black v Shafer*, \_Mich\_; 879 NW2d 642 (2016) (Docket No. 149516).

Even in the mine-run negligence case, this significant burden for the plaintiff to meet. The plaintiff first must rule in the defendant's conduct as one possible cause of the plaintiff's injury: "There must be more than a mere possibility that unreasonable conduct of the defendant caused the injury." *Skinner v Square D Co*, 445 Mich 153, 166; 516 NW2d 475 (1994) (citation omitted). The plaintiff then must rule out other potential causes of the plaintiff's injuries. *See id.* It is insufficient "to submit a causation theory that, while factually supported, is, at best, just as possible as another theory." *Id.* at 164. Instead, "the plaintiff must present substantial evidence from which a jury may conclude that more likely than not, but for the defendant's conduct, the plaintiff's injuries would not have occurred." *Weymers v Khera*, 454 Mich 639, 647–648; 563 NW2d 647 (1997). "More likely than not" means a probability of more than fifty percent. *Id.* at 647 n 2 (citation omitted). *See also Jordan v Whiting Corp*, 396 Mich 145, 151; 240 NW2d 468 (1976) ("[t]he mere possibility that a defendant's negligence may have been the cause, either theoretical or conjectural, of an accident is not sufficient to establish a causal link between the two").

Thus a plaintiff must do far more than merely produce evidence that his injury followed the alleged negligent act. “It is axiomatic in logic and in science that correlation is not causation. This adage counsels that it is error to infer that A causes B from the mere fact that A and B occur together.” *Craig v Oakwood Hosp*, 471 Mich 67, 93; 684 NW2d 296 (2004). “Such indulgence is prohibited by our jurisprudence on causation.” *Id.* Thus, “[t]he evidence need not negate all other possible causes, but such evidence must *exclude other reasonable hypotheses with a fair amount of certainty*. Absolute certainty cannot be achieved in proving negligence circumstantially; but such proof may satisfy where the chain of circumstances leads to a conclusion which is *more probable than any other hypothesis* reflected by the evidence.” *Skinner*, 445 Mich at 166 (quoting 57A Am Jur 2d, Negligence, § 461.) “[W]hen the matter [of causation] remains one of pure speculation or conjecture, or the probabilities are at best equally balanced, it becomes the duty of the court to direct a verdict for the defendant.” *Weymers*, 454 Mich at 648 (quoting *Skinner* at 164–165, quoting in turn Prosser & Keeton, Torts (5th ed), § 41, p 269).<sup>1</sup>

The purpose of this two-edged, threshold evidentiary standard is clear, and a longstanding principle of Michigan law: “We cannot permit the jury to guess.” See *Skinner*, 445 Mich at 166 (quoting *Daigneau v Young*, 349 Mich 632, 636; 85 NW2d 88 (1957)). “[L]itigants do not have any right to submit an evidentiary record to the jury that would allow the jury to do nothing more than guess.” *Skinner*, 445 Mich. at 174; see also *id.* at 173 (“Michigan law does not permit us to infer causation simply because a tragedy occurred in the vicinity of a defective product”).

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<sup>1</sup> This Court has recognized that because “the test regarding the sufficiency of causal proof” is now “essentially the same in the contexts of summary judgments and directed verdicts,” older cases involving directed verdicts apply in summary-disposition cases. *Skinner*, 445 Mich at 166 n 10.

The danger of inviting the jury to “guess,” and to reason *post hoc ergo propter hoc*—that because B followed A, A must have caused B—is even more pronounced when the causation inquiry involves scientific, technical, or other specialized knowledge that is outside the common understanding of the lay juror. After all, jurors cannot “exclude other reasonable hypotheses with a fair amount of certainty” or conclude that one hypothesis is “more probable than any other hypothesis” when they have no basis in their experience and common understanding to draw such distinctions. *Skinner*, 445 Mich at 166 (quoting 57A Am Jur 2d, Negligence, § 461). Any causal connection would have to be “supplied *ex nihilo* by the jury”—the jury would have to fashion a causal link out of nothing. *Craig*, 471 Mich. at 93.

Thus the general rule in Michigan is that expert testimony is required when the causal link is “not within the common experience and understanding of jurors.” See *Krohn v Home-Owners Ins. Co.*, 490 Mich 145, 167 n 59; 802 NW2d 281 (2011). See also *Woodard v Custer*, 473 Mich 1; 702 NW2d 522 (2005); *Levyn v Koppin*, 183 Mich 232, 236; 149 NW 993 (1914) (lay testimony would be inadmissible, and therefore expert testimony necessary, if “conditions were shown which called for knowledge not possessed by ordinary persons”); *People v Kowalski*, 492 Mich 106, 123, 821 NW2d 14 (2012) (under this “commonsense inquiry,” “[i]f the untrained layman would be qualified to determine intelligently and *to the best possible degree* the particular issue without enlightenment from those having a specialized understanding of the subject involved in the dispute, then expert testimony is unnecessary”) (quotation marks omitted; emphasis added). This squares with the widely accepted, generally applicable rule that “experts are needed where the testimony concerns complex matters that challenge the ability of lay people to understand.” 29 Federal Practice & Procedure: Evidence (2d ed), § 6265.2; see also Prosser & Keeton, Torts (5th ed), § 41, p 269 (“Where the [causal] conclusion is not one

within common knowledge, expert testimony may provide a sufficient basis for it, but in the absence of such testimony it may not be drawn.”).

This Court has recognized that in certain subject areas, establishing this causal link will almost always require expert testimony. Because most jurors are not medical doctors, for example, medical issues are not within their common knowledge. Thus, the general rule is that “the testimony of experts is required to determine the cause of physical ailments.” See *Lindley v City of Detroit*, 131 Mich 8, 10; 90 NW 665 (1902); *Woodard*, 473 Mich at 6 (“[g]enerally, expert testimony is required in medical malpractice cases”). See also *Spaulding v Bliss*, 83 Mich 311, 315; 47 NW 210 (1890) (holding that the plaintiff, because “she was not an expert,” could not “testify what was the cause” of the pains in her knee); *Elliot v Van Buren*, 33 Mich 49, 53–54 (1875) (regarding medical conditions, lay witnesses may “describe[e] what they see” or “testify[] concerning the kind of injury or sickness of others,” but if the matter “is something out of the common course of general information and experience” or “involves medical knowledge beyond that of ordinary unprofessional persons,” it is “necessary to resort to the evidence of learned witnesses”).

This Court’s decision in *Woodard* is a good illustration of these principles at work. There, the Court (per Justice Markman) held that expert testimony was required to establish a causal link between an infant’s leg fractures during surgery and alleged negligence by a doctor. 473 Mich at 3. The Court noted the rule that “[g]enerally, expert testimony is required in medical malpractice cases.” *Id.* at 6. The reason is that medical matters are not within the “common purview” of lay jurors, and thus there is a “need to educate the jury” through expert testimony before they can reach a reasonable decision on these matters. *Id.* (quoting *Locke v Pachtman*, 446 Mich 216, 223-24; 521 NW2d 786 (1994)). The plaintiff argued that expert

testimony was not required because the case met the requirements of the doctrine of *res ipsa loquitur*—“the thing speaks for itself”—because the injury was of a kind that “ordinarily does not occur in the absence of someone’s negligence.” *Id.* at 7. The Court rejected that argument, reasoning that “the fact that the injury complained of does not ordinarily occur in the absence of negligence must either be supported by expert testimony or must be within the common understanding of the jury.” *Id.* (quoting *Locke*, 446 Mich at 231). And “whether a leg may be fractured when placing an arterial line or a venous catheter in a newborn’s leg is not within the common understanding of the jury.” *Id.* “[T]hus, expert testimony is required.” *Id.*

These cases reveal the generally applicable rule in Michigan regarding when expert testimony is required. Expert testimony is required to establish causation whenever the causal link is “not within the common understanding of the jury.” *Id.* Only when the causal link is so manifest that it is within the ordinary layman’s “common understanding” is expert testimony not required.

**B. Causation in toxic-tort cases almost always turns on matters outside the common understanding of average jurors, so courts across the country have held that expert testimony is required.**

Toxic-tort cases present a straightforward application of this general Michigan rule. “Ordinarily, the testimony of experts is required to determine the cause of physical ailments,” *Lindley*, 131 Mich at 10, and the question in a toxic-tort case, just as in a medical-malpractice case, is what caused the plaintiff’s physical ailment. Most jurors are not toxicologists or chemists, so it is not within their “common understanding” whether, for example, volatile organic compounds (VOCs) cause unabating migraines and vomiting, or whether vomiting causes gastric arterial avulsions, or what intensity and frequency of exposure to VOCs is harmful, or whether any given intensity and frequency of exposure could produce vomiting and a gastric arterial avulsion an hour, or a day, or a week, or a month after exposure.

This is because in toxic-tort cases, non-expert evidence will almost never add up to a “logical sequence of cause and effect” by having greater weight than a “mere possibility” and by “exclud[ing] other reasonable hypotheses with a fair amount of certainty.” See *Skinner*, 445 Mich at 164-68. When the plaintiff alleges that substance X caused her injury Y, in order for the matter to be logically evaluated on the basis of lay testimony alone, it would need to be common knowledge that (1) substance X is capable of causing injury Y, and (2) injury Y does not commonly occur idiopathically (that is, arising without a known cause) or due to other causes than exposure to substance X. Without these, a *logical*—and not merely conjectural—causal sequence cannot be established on the basis of common knowledge. It is not enough, in other words, that the jury can conclude that the plaintiff’s exposure is a possible cause of her injuries. See *Jordan v Whiting Corp*, 396 Mich 145, 151; 240 NW2d 468 (1976) (“[t]he mere possibility that a defendant’s negligence may have been the cause, either theoretical or conjectural, of an accident is not sufficient to establish a causal link between the two”). In order for the jury’s reasoning to amount to more than mere “speculation,” the jury must be able both to *formulate* “reasonable” alternative causes of the plaintiff’s injury, then *weigh* those hypotheses against the causal hypothesis put forward by the plaintiff, “exclude other reasonable hypotheses with a fair amount of certainty,” and ultimately conclude that one hypothesis is “more probable than any other hypothesis.” *Skinner*, 445 Mich at 166. But lay jurors cannot do any of these things when the matter at issue is not within their common experience or understanding.

Consistent with these principles of Michigan law, courts across the country and leading commentators have concluded that toxic-tort cases almost always involve complex scientific issues of causation, and thus causation must be established through expert testimony. As courts have recognized, “the effects of toxic chemical exposure are complex and not within the ken of

ordinary experience.” *Kolesar v United Agri Products*, 412 F Supp 2d 686, 696 (WD Mich 2006), aff’d, 246 F Appx 977 (CA 6, 2007) (applying Wisconsin law). Hence, “[i]n proving [general and specific] causation” in a toxic-tort case, “expert medical and toxicological testimony is unquestionably required to assist the jury.” *Junk v Terminix Intern Co*, 628 F3d 439, 450 (CA 8, 2010).<sup>2</sup>

Thus, a widely accepted rule has emerged that expert testimony is required to establish causation in a toxic-tort case. See, e.g., Kaye, Bernstein & Mnookin, *New Wigmore: Expert Evidence*, § 2.5, p 82 (“In cases alleging injury from toxic substances and pharmaceuticals in which causation is contested, plaintiffs must present admissible expert testimony or face summary judgment.”). The Sixth Circuit’s articulation of the rule in *Pluck* is representative of the widely accepted standard: “In a toxic-tort case . . . the plaintiff must establish both general and specific causation through proof that the toxic substance is capable of causing, and did cause, the plaintiff’s alleged injury.” 640 F3d at 676-77. As to general causation, “it is well-settled that the mere existence of a toxin in the environment is insufficient to establish causation without proof that the level of exposure could cause the plaintiff’s symptoms.” *Id.* at 679. “As to specific causation, the plaintiff must show that she was exposed to the toxic substance and that the level of exposure was sufficient to induce the complained-of medical condition (commonly

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<sup>2</sup> See also *Savage v Union Pacific R Co*, 67 F Supp 2d 1021, 1030 (ED Ark, 1999) (it is a “fundamental proposition that the existence of a causal connection between exposure to a certain chemical and an alleged injury requires specialized expert knowledge and testimony since such matters are not within the common knowledge of lay persons”); *Conde v Velsicol Chemical Corp*, 24 F3d 809, 813, 814 (CA 6, 1994) (expert testimony is required in a toxic-tort case because “non-medical doctors [are] unqualified to render differential diagnoses of medical conditions”; they are “unable to exclude other potential causes” for plaintiffs’ injuries); *Allen v Pennsylvania Eng’g Corp*, 102 F3d 194, 199 (CA 5, 1996) (“[s]cientific knowledge of the harmful level of exposure to a chemical plus knowledge that plaintiff was exposed to such quantities are minimal facts necessary to sustain the plaintiff’s burden”).

called a ‘dose-response relationship’).” *Id.* at 677 (quotations and alterations omitted). This requires the expert to rule out other causes and “confounding factors.” See *id.* at 680. “Both causation inquiries involve scientific assessments that must be established through the testimony of a medical expert.” *Id.* at 677. “Without this testimony, a plaintiff’s toxic tort claim will fail.” *Id.* This same general rule is applied in toxic-tort cases in jurisdictions throughout the country.<sup>3</sup>

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<sup>3</sup> See, e.g., *Sean R ex rel Debra R v BMW of N Am, LLC*, 26 NY3d 801, 808-09; 28 NYS 3d 656; 48 NE3d 937 (2016) (holding that, in toxic tort cases, an expert must establish a plaintiff’s exposure to a toxin, as well as general and specific causation); *Cowart v Widener*, 287 Ga 622, 628; 697 SE2d 779 (2010) (stating that expert medical testimony establishing a causal link between the plaintiff’s injury and the alleged causal agent is necessary in a toxic-tort case, where “the diagnosis and potential continuance of a disease or other medical condition are medical questions to be established by physicians as expert witnesses and not by lay persons”) (quotation marks and citation omitted); *Terry v Caputo*, 115 Ohio St 3d 351, 355; 2007 Ohio 5023; 875 NE2d 72 (2007) (“Establishing general causation and specific causation in cases involving exposure to old or other toxic substances involves a scientific inquiry, and thus causation must be established by the testimony of a medical expert.”); *Tolley v ACF Indus, Inc*, 212 W Va 548, 558; 575 SE2d 158 (2002) (upholding summary judgment in toxic exposure case because plaintiff failed to offer more than “indeterminate expert testimony on causation”); *Whately v Cardinal Pest Control*, 388 So2d 529; 29 ALR4th 981 (Ala, 1980) (holding that, because whether pesticides cause urticaria (hives) is not a matter within the common knowledge or experience of lay jurors, defendant was entitled to summary judgment, notwithstanding plaintiff’s evidence that the condition started immediately after he inhaled the pesticide and that other individuals suffered the same symptoms at the same time and place); *Case of Canavan*, 432 Mass 304, 316; 733 NE2d 1042 (2000) (holding, in a toxic-tort case, that “[b]ecause understanding medical causation is ‘beyond the knowledge of the ordinary layman proof of it must rest upon expert medical testimony.’”) (citation omitted); *Mills v State Sales, Inc*, 824 A2d 461, 468 (RI, 2003) (“we do not hesitate to conclude that the existence of a causal relationship between a particular toxin and its effect on the human body would have to be established through expert testimony”); *Higgins v Koch Dev Corp*, 794 F3d 697, 703 (CA 7, 2015) (“Indiana law makes clear that questions of medical causation of a particular injury are questions of science necessarily dependent on the testimony of physicians and surgeons learned in such matters.”) (citations omitted); *Arias v DynCorp*, 410 US App DC 62, 67; 752 F3d 1011 (2014) (“District of Columbia law requires expert testimony where the parties offer competing causal explanations for an injury that turn on scientific information.”); *Nelson v Matrixx Initiatives, Inc*, 592 F Appx 591, 592 (CA 9, 2015), *cert denied*, 136 S Ct 76 (Mem) (“In a toxic tort case in California . . . [g]eneral and specific causation ‘must be proven within a reasonable medical probability based upon competent expert testimony.’”) (quoting *Jones v Ortho Pharm Corp*, 163 Cal App 3d 396; 209 Cal Rptr 456, 460, 462 (1985)); *Barrett v Rhodia, Inc*, 606 F3d 975, 984 (CA 8, 2010) (“Nebraska courts have clearly and consistently held that expert evidence is required to establish both general and specific causation.”) (citing cases); *Golden v CH2M Hill Hanford Group, Inc*,  
*Continued on next page.*

The Eight Circuit’s decision in *Wright v Willamette Indus, Inc*, 91 F3d 1105 (CA 8, 1996) illustrates the standards at work. The plaintiffs there claimed their injuries were caused by the inhalation of formaldehyde-treated particulate matter negligently emitted by a fiberboard manufacturing plant. *Id.* at 1106. The Eighth Circuit held that “a plaintiff in a toxic tort case must prove the levels of exposure that are hazardous to human beings generally as well as the plaintiff’s actual level of exposure to the defendant’s toxic substance before he or she may recover.” *Id.* The court held that the plaintiffs’ experts’ opinions on these points were not based

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528 F3d 681, 683 (CA 9, 2008) (federal law) (holding, in a toxic-tort case, that where plaintiff’s expert was “unable to support his claim that this accident caused his physical injuries, [plaintiff] is unable to prove specific causation.”); *Allen v Pennsylvania Eng’g Corp*, 102 F3d 194, 199 (CA 5, 1996) (Louisiana law preempted in part by federal law) (“Scientific knowledge of the harmful level of exposure to a chemical . . . [is a] minimal fact[] necessary to sustain the plaintiffs’ burden in a toxic tort case.”); *Turner v Iowa Fire Co*, 229 F3d 1202, 1210 (CA 8, 2000) (Missouri law) (holding, in a toxic-tort case, that when injuries are “sophisticated,” so as to require surgical intervention or another highly specialized scientific technique for diagnosis—injuries such as asthma, or damage to the respiratory system (nose, mouth, throat, lungs, and airway passages)—“proof of causation is not within the realms of lay understanding and must be established through expert testimony.”); *Henry v St Croix Alumina, LLC*, 572 F Appx 114, 120 (CA 3, 2014) (Virgin Islands law) (upholding summary judgment for defendant based on “the general requirement of expert testimony on causation in a complex, toxic tort case”); *Zellers v NexTech Northeast, LLC*, 895 F Supp 2d 734, 752 (ED Va, 2012) (Virginia law) (“Without reliable and relevant expert testimony causally linking Plaintiffs’ medical conditions with the refrigerant gas leak at the Rite Aid store, the jury would be left to speculate whether such a causal connection exists. Such speculation would be impermissible.”); *In re Baycol Products Litigation*, 321 F Supp 2d 1118, 1126 (D Minn, 2004) (Minnesota law) (“personal injury cases involving pharmaceuticals, toxins, or medical devices involve complex questions of medical causation beyond the understanding of a lay person”); *Kolesar v United Agri Products*, 412 F Supp 2d 686, 696 (WD Mich, 2006), *aff’d*, 246 F Appx 977 (CA 6, 2007) (Wisconsin law) (“[T]he effects of toxic chemical exposure are complex and not within the ken of ordinary experience. . . . for Plaintiff to support his claims that chemical exposure caused him permanent injury, he must educe [sic] supporting qualified expert testimony.”); *Farris v Intel Corp*, 493 F Supp 2d 1174, 1186 (D NM, 2007) (New Mexico law) (“General causation and specific causation are essential elements of Plaintiff’s prima facie case for each claim asserted in this litigation. Expert testimony is necessary to make this showing since this is a toxic tort lawsuit.”); *Soutiere v Betzdearborn, Inc*, 189 F Supp 2d 183, 190 (D Vt, 2002) (Vermont law) (“In a toxic tort case the connection between chemical exposure and a physical condition is not at all obvious. . . . [A]t trial, expert testimony would be essential to a finding of causation.”).

on scientific knowledge and were therefore inadmissible. *Id.* at 1107-08. “The jury could therefore only have speculated about whether the amount of formaldehyde from [defendant]’s plant to which each plaintiff was exposed was sufficient to cause their injuries or, indeed, any injuries at all.” *Id.* at 1108. In other words, absent competent expert testimony, “the evidence failed to support a reasonable inference . . . against [defendant] on the causation issue.” *Id.* at 1108.

The weight of authority thus holds that, as the Ohio Supreme Court concisely put it, “[e]stablishing general causation and specific causation in cases involving exposure to . . . toxic substances involves a scientific inquiry, and thus causation must be established by the testimony of a medical expert.” *Terry v Caputo*, 115 Ohio St 3d 351, 355; 2007 Ohio 5023; 875 NE2d 72 (2007).

**C. Only in the exceptionally rare case where the causal link between exposure and injury is so obvious and immediate that it is within the common experience and understanding of the ordinary juror is expert testimony not required in a toxic-tort case.**

Courts throughout the country have struggled with permitting exceptions to the “general” rule that expert testimony is required without letting the rule become more of an option. Courts have recognized that there are toxic-tort cases where it is completely obvious to any layman that the toxic chemical caused the injury. In *Ott v Faison*, 287 Ala 700; 255 So2d 38 (1971), just by way of example, the plaintiff slipped and fell into a puddle of sulfuric-acid-based drain cleaner. Predictably enough, she immediately suffered a large burn to her hip area (the area that came in contact with the acid) and was immediately taken to the hospital. The jury didn’t need expert testimony to tell them that the cause of the burn was the puddle of sulfuric acid she fell into.

As treatises have noted, this issue is not unique to the toxic-tort area. “Sometimes the causal issue is so much within common experience that no testimony is required at all. For

example, experience shows that impacts can cause bruises, broken bones, painful muscles, and ruptured organs, so we can readily believe that your fall caused the bruise on your arm[.]” III Dobbs, Hayden & Bublick, Torts (2d ed), § 184. “In these situations, common knowledge and experience suffice to permit the trier to infer a causal relationship between tort and injury.” *Id.* So even where there is a general rule that expert testimony is required to establish issues of medical causation, these rare cases present an exception to that general rule. *Id.* “However, when the causation issue is not within ordinary understanding and experience, the question of whether the defendant’s conduct could cause the plaintiff’s harm is resolved by scientific or medical evidence.” *Id.*

This Court’s cases again point the way on how to account for the truly exceptional case while still maintaining a strong general rule that expert testimony is generally required. The Court has addressed this reality in the medical context, for example, and has held that the only “exception” to the general rule that expert testimony is required is if the link between the negligence and the injury is “so manifest” that it is “within the common knowledge and experience of the ordinary layman.” See *Lince v Monson*, 363 Mich 135, 141; 108 NW2d 845 (1961). As noted above, when the surgeon leaves a needle inside the patient, for example, *LeFaive v Asselin*, 262 Mich 443; 247 NW 911 (1933), or sews a surgical sponge inside, *Winchester v Chabut*, 321 Mich 114; 32 NW2d 358 (1948), the causal inquiry is so immediate and obvious that it is within the “common knowledge and experience of the ordinary layman,” so expert testimony is not required. But except in these very rare, exceptional cases, this Court has maintained and enforced a robust general rule that expert testimony is required. See *Woodard*, 473 Mich at 3.

The Court's decision in *Woodard* shows this rule at work. As set forth above, the issue was whether expert testimony was required to establish a causal link between an infant patient's leg fractures during surgery and alleged negligence by the doctor. *Id.* The Court noted the rule that "[g]enerally, expert testimony is required in medical malpractice cases." *Id.* at 6. The plaintiff argued that this general rule did not apply and that expert testimony was not required because the issue was supposedly within the lay juror's common understanding and the case met the requirements of the doctrine of *res ipsa loquitur*—"the thing speaks for itself"—because the injury was of a kind that "ordinarily does not occur in the absence of someone's negligence." *Id.* at 7. The Court rejected that argument, reasoning that "the fact that the injury complained of does not ordinarily occur in the absence of negligence must either be supported by expert testimony or must be within the common understanding of the jury." *Id.* (quoting *Locke*, 446 Mich at 231). And "whether a leg may be fractured when placing an arterial line or a venous catheter in a newborn's leg is not within the common understanding of the jury." *Id.* "[T]hus, expert testimony is required." *Id.* It was not sufficient that a lay juror would have some general sense that legs shouldn't be broken during surgery, because the relevant causal inquiry—which turned on how a complex medical procedure was supposed to be performed—was outside the common experience and understanding of the lay juror.

The Sixth Circuit's decision in *Gass v Marriott Hotel Services, Inc*, 558 F3d 419 (2009) is a good illustration of a close call under these standards. The plaintiffs, Michigan residents, were hotel guests in Maui who discovered a dead cockroach in their room. *Id.* at 422. The hotel brought in a pest-control team, who sprayed the room with pesticides while the plaintiffs were out on the beach. *Id.* One of the plaintiffs returned to the room during the spraying to retrieve her lunch money, and said she encountered a "cloud" of the pesticides. *Id.* Once the spraying

was done, both plaintiffs returned to the room (for “about two-and-a-half-minutes”) to retrieve their belongings and move to a different room. *Id.* at 423. A “short time” after their alleged exposure to pesticides in the room, the plaintiffs complained of various symptoms, such as stomach aches and “seeing stars.” *Id.*

The question was whether the plaintiff’s evidence of causation was sufficient without expert testimony specifically linking alleged exposure to a harmful toxin and the plaintiffs’ symptoms. The Sixth Circuit panel majority, applying Michigan law that had not expressly adopted a rule that expert testimony was generally required in a toxic-tort case, held that the evidence was sufficient, and reversed the district court’s grant of summary judgment to the hotel. Judge Boggs, however, dissented. He argued, based on deeply rooted principles of causation set forth by this Court, that “[t]his case basically boils down to the relative import of two Latin phrases: ‘*post hoc ergo propter hoc*’ and ‘*res ipsa loquitur*.’” *Id.* at 434-35. Judge Boggs noted that the former “is the fallacy of saying that because effect A happened at some point after alleged cause B, the alleged cause was the actual cause.” *Id.* at 435. But “[s]uch logic has never been enough to survive summary judgment.” *Res ipsa*, on the other hand, “applies to a narrow class of cases in which the connection between an untoward effect and some type of fault is so clear (and the likelihood of an alternative explanation so low) that no other evidence is required to uphold a jury verdict.” *Id.* Judge Boggs noted—consistent with the needles-and-sponges cases discussed above—that “[i]t is of course correct that under Michigan law some complex cases involve breach or causation questions within the ken of the jury notwithstanding the professional or scientific nature of the litigation.” *Id.* at 436.

Judge Boggs believed the case did not fit this narrow category under Michigan law. “As I understand it, these cases [including this Court’s decision in *Woodard*] require expert testimony

in complex, professional, or scientific-based negligence cases in order to limit the dangers associated with indulging the *post hoc* impulse: it is too easy to charge an uncommon harm to the presence of a mysterious substance.” *Id.* at 437. “Properly credentialed expert testimony operates as a bulwark against such fallacious attribution of guilt.” *Id.* “In our case, the plaintiff’s symptoms, which worsened at a later time and after medical care, and which are known to have a wide variety of possible causes, are much less obviously connected to an unspecified dose of a potentially poisonous pesticide.” *Id.* Judge Boggs noted that the plaintiff’s evidence “leaves open more questions than it answers.” *Id.* at 438. “For instance, how long do the symptoms persist? How much exposure triggers what symptoms? What measures (besides ventilation) can prevent harm? How many parts per million make a room ‘cloudy’? How much chemical concentration before a ‘sort of cloudy’ room becomes dangerous?” *Id.* “As I understand Michigan’s tort law, the gaps in the evidence suggested by these questions are too wide to be bridged by jury inference.” *Id.* Judge Boggs acknowledged that, “[t]o be sure, the difference between ‘common knowledge’ and a fact that must be explained by expert testimony has not been precisely defined. But wherever the line may be, the questions posed in the previous paragraph about health effects and proper precautions to mitigate them appear to me well beyond the ordinary ken of a juror.” *Id.*

Judge Boggs had it right. This was a close case, where the plaintiffs’ symptoms followed shortly after alleged exposure to a potentially harmful pesticide. But even in a case where the causal inquiry *seems* seductively simple, as Judge Boggs points out, understanding the actual causal chain rests on complex scientific questions of concentration levels, exposure duration, and medical symptoms that are well outside the common understanding of the lay jury. And as Judge Boggs recognized, Michigan law requires expert testimony whenever the causal inquiry is

not within the common experience and understanding of lay jurors, so expert testimony was required.

**D. The rule, distilled: Expert testimony is required in any case, including a toxic-tort case, in which the causation inquiry turns on scientific, technical, or other specialized knowledge that is outside the common experience and knowledge of an ordinary juror.**

These cases reveal a general rule that is deeply rooted in Michigan law, flows from this Court's precedents, and is widely accepted in jurisdictions across the country. The MMA proposes that the Court adopt the following articulation of the rule:

Expert testimony is required in any case in which the causation inquiry turns on scientific, technical, or other specialized knowledge that is outside the common experience and knowledge of an ordinary juror. The only "exception" to this rule—which is really just the rule's converse—is if the causal link is so obvious that it is within the common experience and knowledge of an ordinary juror.

Applying that general rule in the toxic-tort context, because the causation inquiry in toxic-tort cases will almost always involve scientific, technical, or other specialized knowledge outside the common experience and understanding of the lay juror, expert testimony is required to establish causation in a toxic-tort case. Specifically, in a toxic-tort case, a plaintiff must produce expert testimony establishing both "general" and "specific" causation. To establish general causation, the plaintiff must produce expert testimony establishing that the toxic substance in question is capable of causing the plaintiff's alleged injury. To establish specific causation, the plaintiff must produce expert testimony establishing that the toxic substance did, in fact, cause the plaintiff's alleged injury, including the fact that the plaintiff's level of exposure to the toxic substance was sufficient to induce the alleged injury. Without this testimony, the plaintiff's toxic-tort claim will fail.

The only “exception” to this rule is if the causal link between exposure to the toxin and the plaintiff’s injury is so manifest that it is within the common experience and understanding of the lay juror. This exception will apply only in the very rare case where injury immediately follows exposure, where it is common knowledge that the hazardous substance causes the symptoms the plaintiff suffered, and where there are no reasonable alternative explanations for the symptoms. Otherwise, expert testimony is required.

**II. THE CAUSATION INQUIRY IN THIS CASE TURNS ON MATTERS OUTSIDE THE COMMON EXPERIENCE AND UNDERSTANDING OF THE JURY, SO EXPERT TESTIMONY WAS REQUIRED**

Applying the rule to this case, most jurors are not toxicologists or doctors, so it is not within their “common understanding and experience” whether hexane, toluene, and benzene can cause a gastric arterial avulsion. Still less a matter of common understanding is what intensity and frequency of exposure to oil fumes is harmful, or whether any given intensity and frequency of exposure could produce vomiting and a gastric arterial avulsion a week after exposure.

Thus, the Court of Appeals should have affirmed the grant of summary disposition to the defendant absent admissible expert testimony showing (1) that the plaintiff was exposed to harmful levels of volatile organic compounds; (2) that harmful levels of exposure to VOCs can cause a delayed episode of prolonged, violent vomiting a week or more after exposure; (3) that there were no other medically reasonable causes of the plaintiff’s vomiting, including his first-time ingestion of Vicadin immediately before his vomiting began; and (4) that his vomiting caused his short gastric artery to rupture. Without expert testimony, the plaintiff could neither rule in the VOCs as a cause of his injuries, rule out other reasonable hypotheses about the causes of his injuries with a fair amount of certainty, or demonstrate that he was exposed to a harmful level of VOCs. Any one of these failures would mean that he had failed to meet his burden of proof.

The Court of Appeals majority here purported to follow its earlier decision in *Genna v Jackson*, 286 Mich App 413, 418; 781 NW2d 124 (2009), which “decline[d] to adopt” the requirement that “direct expert testimony is required to establish the causal link” between toxic exposure and injury in a toxic-tort case. But *Genna*, too, was wrongly decided under this Court’s precedents and the general rule set forth above. The plaintiff’s evidence of causation there was certainly stronger than the plaintiff’s here: the apartment next door to the plaintiff in a condominium complex was “so grossly contaminated” with mold that was “known to produce toxins that can affect human health and pose safety issues,” that the entire interior of the condominium had to be demolished. *Id.* at 416. While the mold was present in the neighboring condominium, the plaintiff’s children suffered “flu-like symptoms including diarrhea, vomiting, congestion, and nosebleeds,” and ultimately had to be hospitalized. *Id.* Their symptoms improved when they moved out and into the plaintiff’s parents’ house. *Id.*

The *Genna* court noted that there was “no published Michigan caselaw” on whether expert testimony was required, so the court followed the Sixth Circuit’s majority decision in *Gass*. The court held that the plaintiff’s evidence of causation was sufficient without expert testimony. Like in *Gass*, the court held, “[i]t does not take an expert to conclude that, under these circumstances, defendant more likely than not is responsible for plaintiff’s injuries.” *Id.* (quoting *Gass*, 558 F3d at 433). The court reasoned that “[t]his is not a complicated case: the children were sick, the children were removed from the home, the mold was discovered, and the children recovered.” *Id.* at 421.

But that is precisely the sort of *post hoc* reasoning this Court’s cases have cautioned against. It is extremely common for children to suffer “flu-like symptoms”—especially “in February,” which is when the children in *Genna* started getting sick. *Id.* at 415. It is also

common for them to recover from their sickness with the passage of time. And the fact that they were potentially exposed to a toxic agent during that time does not mean that the toxic agent *caused* their symptoms. *Craig*, 471 Mich at 93. In fact, this “logical error” is “*prohibited* by our jurisprudence on causation.” *Id.* Whether exposure to the specific mold the plaintiffs were exposed to and at the level and frequency of exposure were capable of causing and did cause the plaintiff’s children’s common ailments is not within the common experience and understanding of the lay juror, and thus expert testimony was required to establish this causal link.

The same is true here. The plaintiff failed even to “rule in” VOCs as a cause of his injuries. In his brief to this Court, the plaintiff argues that VOCs in crude oil are “known irritants that are commonly known to cause the symptoms he experienced at any level of exposure.” But this “any exposure” theory is a scientific claim, and a highly implausible one at that. Every day, each and every one of us is exposed to positive background levels of airborne VOCs, from car exhaust, factories, and other sources.<sup>4</sup> But as the adage goes, it is the dose that makes the poison. See generally *McClain v Metabolife Intern, Inc*, 401 F3d 1233, 1242 (CA 11, 2005) (“‘Dose is the single most important factor to consider in evaluating whether an alleged exposure caused a specific adverse effect.’ . . . Often ‘low dose exposures—even for many years—will have no consequence at all, since the body is often able to completely detoxify low doses before they do any damage.’”) (quoting Eaton, *Scientific Judgment and Toxic Torts—A Primer in Toxicology*

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<sup>4</sup> See, e.g., Michael C McCarthy, Hilary R Hafner & Stephen A Montzka, *Background Concentrations of 18 Air Toxics for North America*, 56 Journal of the Air & Waste Management Association 3 (2006), available at <http://dx.doi.org/10.1080/10473289.2006.10464436>; U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response, EPA Report 530-R-10-001, *Background Indoor Air Concentrations of Volatile Organic Compounds in North American Residences (1990–2005): A Compilation of Statistics for Assessing Vapor Intrusion* (2011).

*for Judges and Lawyers*, 12 J L & Policy 5, 11, 13 (2003)); *Wright v Willamette Industries, Inc.*, 91 F3d 1105, 1106 (CA 8 1996).

The plaintiff failed to demonstrate what level of VOCs he may have been exposed to. As courts have recognized, establishing exposure is particularly complicated when a hazardous substance is airborne. See, e.g., *Allen v Martin Surfacing*, 263 FRD 47, 53–57 (D Mass, 2009) (showing the complex science behind reliably estimating a plaintiff’s exposure to airborne toluene). Even when one can smell the hazardous substance, that may or may not indicate that one has been exposed to a potentially harmful dose. See *Sean R ex rel Debra R v BMW of N Am, LLC*, 26 NY3d 801, 809-811; 28 NYS 3d 656; 48 NE3d 937 (2016) (an expert’s opinion was inadmissible because it relied on reports by the plaintiff’s mother and grandmother that the smell of gasoline “occasionally caused them nausea, dizziness, headaches, and throat irritation,” and discussing the science of “odor threshold analysis”; citing a scientific article explaining that “[s]melling organic solvents is not indicative of significant exposure”). In any case, whether there is a connection between harmful levels of an airborne toxin, and the sensory characteristics that a lay witness can accurately and admissibly attest to, is generally not a matter of common knowledge, so expert testimony was required to establish the plaintiff’s exposure levels as well.

The plaintiff also could not rule out idiopathic or other causes of his migraines and nausea. Although he did not need to rule out all possible causes of his condition, he had to “exclude other reasonable hypotheses with a fair amount of certainty.” *Skinner*, 445 Mich at 167. Lay jurors cannot even begin to guess at what a reasonable hypothesis would be regarding the etiology of such symptoms, let alone to sort such hypotheses according to weight. Allowing the jury to conclude that VOCs caused his injuries, merely because the plaintiff was somewhere

in their general vicinity when his injuries emerged, would be giving free reign to the most tenuous form of the *post hoc ergo propter hoc* fallacy.

Beyond that, the Court of Appeals also failed to recognize that its holding directly undermines the gatekeeping function assigned to the courts by MCL 600.2955, MRE 702, and *Gilbert v DaimlerChrysler Corp*, 470 Mich 749; 685 NW2d 391 (2004) and its progeny. Michigan's legislature and this Court have built a formidable gate to keep junk science out of Michigan courtrooms. This case represents an attempt to bring meritless claims in through the back door. If a plaintiff cannot present reliable scientific evidence in support of his causation theory in a toxic-tort case, he should not be allowed to proceed because he follows the novel strategy of offering *no scientific evidence at all*.

The stakes of this case are high. Toxic-tort claims, just like medical-malpractice claims, raise significant concerns about the broad *in terrorem* effects of adverse judgments. As one justice of the United States Supreme Court has recognized:

[M]odern life, including good health as well as economic well-being, depends upon the use of artificial or manufactured substances, such as chemicals. And it may, therefore, prove particularly important to see that judges fulfill their *Daubert* gatekeeping function, so that they help assure that the powerful engine of tort liability, which can generate strong financial incentives to reduce, or to eliminate, production, points toward the right substances and does not destroy the wrong ones. [*Gen Elec Co v Joiner*, 522 US 136, 148-49; 118 S Ct 512, 520; 139 L Ed 2d 508 (1997) (Breyer, J., concurring)].

These concerns about the “powerful engine of tort liability,” *id.*, and the need for courts to fulfill their gatekeeping role, resonate particularly strongly in Michigan. See *Chapin v A & L Parts, Inc*, 478 Mich 916; 733 NW2d 23, 24 (2007) (Markman, J., dissenting from denial of application for leave to appeal) (“There is perhaps no state whose businesses and economy have been more severely harmed in recent years by the introduction of what later proved to be dubious scientific testimony than Michigan.”).

The MMA therefore respectfully asks this Court to reaffirm its precedents and make clear what they require of plaintiffs in toxic-tort cases. The plaintiff here is asking that juries be allowed to speculate about issues lying far beyond common knowledge and experience. He asserts that an unassisted jury can reasonably deliberate about the toxicology of airborne chemicals and can accurately diagnose medical conditions. The MMA disagrees. More importantly, the MMA believes that the plaintiff's assertions have no basis in Michigan law.

### **Conclusion**

The MMA respectfully requests that the Court reverse the decision of the Court of Appeals, affirm the circuit court's grant of summary disposition to the Defendant, and expressly adopt the rule that expert testimony is required to establish causation in a toxic-tort case.

Respectfully submitted,

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