

WHOLE COURT

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November 3, 2023

In the Court of Appeals of Georgia

A23A0839. BOWERS v. CSX TRANSPORTATION, INC.

MARKLE, Judge.

Luther Bowers was an employee of CSX Transportation, Inc. for more than 30 years, during which he was continuously exposed to diesel fuel and exhaust, asbestos, and silica dust. After learning that he had terminal lung cancer, he filed suit against CSX under the Federal Employers' Liability Act (FELA), 45 USCA § 51 et seq., alleging that the railroad company's negligence in handling toxic substances, and its failure to warn him of the dangers, caused or contributed to his lung cancer.¹

In support of his claim, and to establish causation, Bowers offered the expert testimony of Dr. Theron Blickenstaff, a physician board-certified in preventative and

¹ Luther died while the lawsuit was pending, and his wife was substituted as the plaintiff in her capacity as administrator of Luther's estate. We refer to the estate/plaintiff as "Bowers" and to Luther Bowers, individually, as "Luther."

occupational medicine. CSX moved to exclude Blickenstaff’s testimony under OCGA § 24-7-702 (“Rule 702”), and moved for summary judgment on the ground that Luther failed to establish causation. Following a hearing, the trial court granted the motion to exclude, and having excluded the causation expert, the trial court granted CSX’s motion for summary judgment.

Bowers now appeals, arguing that the trial court erred by excluding Blickenstaff’s expert testimony because it misapplied Rule 702. For the reasons that follow, and applying the deference we are required to give the trial court’s findings in its role as gatekeeper under Rule 702, we affirm.

“Whether expert testimony ought to be admitted under OCGA § 24-7-702 is a question committed to the sound discretion of the trial court, so we will not disturb the trial court’s determination absent an abuse of discretion.”² (Citation and punctuation omitted.) *MyFamilyDoc v. Johnston*, 366 Ga. App. 459, 464 (2) (883 SE2d 404) (2023).

² We are not persuaded by Bowers’s argument that a de novo review applies. The proper standard of review applicable to the trial court’s analysis of the admissibility of expert testimony is for an abuse of discretion. *Emory Univ. v. Willcox*, 355 Ga. App. 542, 544 (1) (844 SE2d 889) (2020).

So viewed, the record shows that Luther worked for CSX for more than 30 years in numerous capacities, including as a trackman, track inspector, machine operator, and road master. In these positions, he built and repaired railroads, which resulted in frequent exposure to diesel fuel and exhaust, asbestos, and silica dust. Luther was also a lifelong smoker, averaging multiple packs a day for 50 years. After he retired from CSX, Luther was diagnosed with terminal lung cancer. He then filed suit against CSX, and submitted Blickenstaff's testimony to establish that his exposure to toxins while working for CSX was the cause of his cancer.

Blickenstaff explained that exposure to diesel fuel and exhaust, asbestos, and silica dust causes lung cancer.³ To determine whether these toxins caused Luther's specific cancer, Blickenstaff relied on a report provided by Dr. Vance, an industrial hygienist who was involved in Luther's case. Based on Luther's testimony in his deposition and conversations with Luther's co-workers, Vance concluded that Luther had been exposed to more than background levels of diesel fuel and exhaust, asbestos, and silica, and that these toxins, combined with Luther's smoking, "multipl[ied]" the risk he would develop cancer.

³ Blickenstaff relied on the International Agency for Research on Cancer (IARC) literature, which synthesized various studies and confirmed a causal link between lung cancer and exposure to diesel exhaust, asbestos, and silica.

According to Blickenstaff, it was a “reasonable assumption” that exposure to these toxins contributed to Luther’s lung cancer, as any exposure to toxic substances increases the risk of cancer. In support, he pointed to seven studies, four of which linked cancer to exposure to these toxins.

Blickenstaff then explained that he made a differential diagnosis, considering all of Luther’s risk factors and concluding that the occupational exposures and smoking were significant and made it highly unlikely there was any other cause. He opined that the exposure to the toxins while working for CSX increased Luther’s risk of getting cancer and thus caused his cancer to a reasonable degree of medical certainty.

Although he reached this conclusion, Blickenstaff admitted that he was unable to confirm the level of exposure that would be necessary to cause lung cancer, how much toxin Luther was exposed to, or how that quantity compared to the exposures in the various studies he relied on. Blickenstaff noted that CSX had never conducted any air quality studies to determine the amount of exposure. Blickenstaff also could not identify the various jobs Luther held and could not link the amount of exposure to any specific railroad work.

He further admitted that most people exposed to diesel fuel and exhaust do not get lung cancer. Despite his opinion that Luther's exposure to the toxins caused his cancer, Blickenstaff acknowledged that a reasonable scientist could find that Luther's smoking contributed more to cancer than the diesel exposure, and he conceded that it was possible that smoking was the only cause of Luther's cancer.

CSX moved to exclude Blickenstaff's opinion and for summary judgment. Following a hearing, the trial court excluded the testimony because it did not meet the standard for admissibility under Rule 702, and granted summary judgment to CSX. Bowers now appeals, arguing that the trial court erred by granting these motions. According to Bowers, his expert was not required to quantify the exact amount of exposure necessary to cause cancer, or the amount to which Luther was exposed, especially given that CSX never performed air quality measurements. Bowers further challenges the trial court's rejection of the expert's differential diagnosis and reliance on various studies, arguing that the trial court focused on the results rather than the methodology. Finally, Bowers argues that the trial court applied the wrong legal standard by concluding that the testimony would not be helpful to the jury.

Before we consider the admissibility of the expert's testimony, we begin by setting out the general standard for liability in FELA cases. "Under FELA, railroad

companies are liable for injuries to their employees that result in whole or in part from company negligence. . . .” (Citations and punctuation omitted.) *Keen v. Ga. Southern & Fla. R. Co.*, 354 Ga. App. 787, 788-789 (1) (840 SE2d 529) (2020).

To bring a claim under FELA, a plaintiff must prove the traditional common law elements of negligence: duty, breach, foreseeability, and causation. Whether the defendant has a duty to the plaintiff is a question of law to be decided by the court. The other three elements - foreseeability, breach, and causation - are questions of fact to be decided by a jury, assuming that there is evidence in the record creating a genuine issue for trial.

(Citation and punctuation omitted.) *Id.* at 789 (1).

The causation element in a toxic tort case requires the plaintiff to “prove both general causation, that a substance is capable of causing a particular injury or condition, and specific causation, that a substance made a meaningful contribution to a particular individual’s injury.” (Citations omitted.) *Wadley v. Mother Murphy’s Laboratories*, 357 Ga. App. 259, 263 (1) (850 SE2d 490) (2020). CSX does not challenge the testimony as to general causation. Thus, the only issue is whether Blickenstaff’s testimony was admissible to show specific causation.

It is well-settled that the standard of proof as to causation in a FELA case is relaxed, and a plaintiff need only show that the employer’s negligent conduct “played

any part, even the slightest” in causing the injury. (Citation and punctuation omitted; emphasis in original.) *Keen*, 354 Ga. App. at 789 (1); *Smith v. CSX Transp.*, 343 Ga. App. 508, 510 (1) (a) (806 SE2d 890) (2017). But, the standard for admitting expert testimony is the same in a FELA case as it is in any other tort case; a plaintiff must still come forward with admissible expert testimony on specific causation.⁴ *Smith*, 343 Ga. App. at 510-511 (1) (a); see also *Shiver v. Ga. & Fla. Railnet*, 287 Ga. App. 828, 829 (1) (652 SE2d 819) (2007) (“in a FELA case involving allegations of injury due to chemical exposure, the plaintiff must show specific causation through expert testimony.”); *Wills v. Amerada Hess Corp.*, 379 F3d 32, 47 (III) (B) (2d Cir. 2004) (“[t]he standards for determining the reliability and credibility of expert testimony are not altered merely because the burden of proof is relaxed. . . . [I]n the context of FELA claims, the standard of causation and the standards for admission of expert testimony under the Federal Rules of Evidence are distinct issues and do not affect one another.”) (citation and punctuation omitted). Therefore, even in a FELA case, the admissibility of expert testimony is governed by Rule 702, which requires that

⁴ Although Bowers argues that it is a question of law whether the relaxed causation standard in FELA applies equally to the standards for admitting expert testimony, we have rejected that argument. See *Smith*, 343 Ga. App. at 510-511 (1) (a).

“(1) it is based upon sufficient facts or data; (2) it is the product of reliable principles and methods; and (3) the expert witness has applied the principles and methods reliably to the facts of the case.” *Emory Univ. v. Willcox*, 355 Ga. App. 542, 543 (1) (844 SE2d 889) (2020) (citing Rule 702 (b)).⁵

Under [Rule 702], it is the role of the trial court to act as a gatekeeper of expert testimony. In this role, the trial court assesses both the witness’[s] qualifications to testify in a particular area of expertise and the relevancy and reliability of the proffered testimony. [This is a] “rigorous three-part inquiry” in which the trial court considers whether: (1) the expert is qualified to testify competently regarding the matters he intends to address; (2) the methodology by which the expert reaches his conclusions is sufficiently reliable . . . ; and (3) the testimony assists the trier of fact, through the application of scientific, technical, or specialized expertise, to understand the evidence or to determine a fact in issue.

(Citations and punctuation omitted). *Id.* at 543 (1); see also *Daubert v. Merrell Dow Pharmaceuticals*, 509 U. S. 579 (113 SCt 2786, 125 LE2d 469) (1993).

In making this assessment, however, the trial court may not exclude an otherwise sufficient expert opinion simply because it

⁵ When a FELA case is brought in state court, state procedural rules, such as the rules of evidence, apply. See *CSX Transp. v. Howell*, 296 Ga. App. 583, 586 (1) (675 SE2d 306) (2009). And because Rule 702 mirrors the federal rule, we may look to cases from federal courts to guide our analysis. OCGA § 24-7-702 (f).

believes that the opinion is not — in its view — particularly strong or persuasive. The weight to be given to admissible expert testimony is a matter for the jury. . . . [V]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence. . . .

(Citations and punctuation omitted.) *Willcox*, 355 Ga. App. at 543-544 (1).

Nevertheless, the trial court, in the exercise of its discretion, has “considerable leeway in deciding which tests or factors to use to assess the reliability of an expert’s methodology.” (Citation and punctuation omitted.) *Smith*, 343 Ga. App. at 512 (1)

(b). As we recently explained, “[t]rial courts must determine whether to allow expert opinions on a case-by-case basis.” (Citation and punctuation omitted.) *MyFamilyDoc*, 366 Ga. App. at 465 (2). And, even in a FELA case,

speculative medical testimony is not admissible [The] medical expert must be able to articulate that it is likely that the defendant’s negligence, or more than possible that the defendant’s negligence, had a causal relationship with the injury and disability for which the plaintiff seeks damages.

Mayhew v. Bell SteamShip Co., 917 F2d 961, 964 (6th Cir. 1990).

Here, CSX does not challenge Blickenstaff's qualifications. It contends only that his methodology is unreliable, and thus his testimony would not be helpful to the jury. The trial court rejected Blickenstaff's opinion because: (a) his methodology was unreliable, as he did not adequately analyze the studies; and (b) he failed to reliably rule out Bowers's smoking as part of his differential diagnosis.⁶ After a thorough review of the record, and mindful of our deferential standard of review, we are constrained to conclude that the trial court did not abuse its discretion by excluding Blickenstaff's testimony.

⁶ The trial court also rejected Blickenstaff's opinion on the grounds that it was not based on sufficient facts or data and he applied an "any exposure" theory. We do not agree with the court's analysis on these issues. Bowers was not required to proffer a threshold level of toxin to which Luther was exposed. *Wadley*, 357 Ga. App. at 263 (1); *Fulmore v. CSX Transp.*, 252 Ga. App. 884, 891-892 (1), 895 (1) (557 SE2d 64) (2001), overruled in part on other grounds by *Norfolk & Western R. v. Ayers*, 538 U. S. 135, 141, 151 (III) (B), n. 11 (123 SCt 1210, 155 LE2d 261) (2003). Indeed, we have never required a plaintiff to make such a showing, and regardless there is evidence here that the exposure was more than de minimus. See *Scapa Dryer v. Knight*, 299 Ga. 286, 290-292 (788 SE2d 421) (2016). Moreover, Blickenstaff's remark that any exposure increases the risk does not mean he applied the "any exposure" theory, especially given the testimony that Luther's exposure was frequent and plentiful. Any deficiency in the testimony in this regard goes to its weight rather than its admissibility. *Willcox*, 355 Ga. App. at 545 (2). To the extent that the trial court found Blickenstaff's opinion relied on insufficient facts, that, too, goes to weight and not admissibility. See *Willcox*, 355 Ga. App. at 545 (2). Nevertheless, as detailed below, the trial court properly rejected Blickenstaff's opinion for other reasons.

(a) *Reliable methodology.*

The trial court rejected Blickenstaff's opinion because he failed to show how the various studies on which he relied applied to Luther's case, rendering his methodology unreliable. We agree.

Blickenstaff explained that he looked at multiple studies and pooled the data from those studies to get statistically significant results, from which he concluded that the exposure contributed to Luther's lung cancer. But he acknowledged that the pooled data did not involve solely railroad workers. He then pointed specifically to seven studies that did involve railroad workers, four of which identified a relationship between exposure and cancer, and three of which did not.

These studies characterized various railroad jobs and addressed the potential exposure for each one. But Blickenstaff testified that he could not determine how Luther's jobs compared to those cited in the studies, stating instead that the exposure rate "may" be similar. He acknowledged that the studies likely involved older machinery, and newer equipment like that presumably used during the time Luther was working, would have lower exposure levels. He further admitted that he did not have sufficient details to determine whether Luther's exposure was similar to those cited in the studies. Instead, Blickenstaff made assumptions regarding the amount of

exposure in order to draw comparisons to the studies. Because he could not explain how the information in those studies could be applied to Luther's case, especially given his inability to determine whether the positions in which Luther worked corresponded with the ones cited in the studies, the trial court did not abuse its discretion in finding Blickenstaff's reliance on these studies unreliable. *Mayhew*, 917 F2d at 964 (finding speculative testimony inadmissible).

Moreover, Blickenstaff's opinion based on these studies often conflated general and specific causation. He stated that it was unnecessary to connect Luther's specific jobs to his level of exposure because the literature had already established a link between exposure and cancer. But this response goes to general causation, which is not in dispute, and should not be equated with specific causation. It is one thing to say exposure *could* cause cancer, but quite another to say that it *did*. See *Smith*, 343 Ga. App. at 514 (1); *Lancaster v. BNSF R. Co.*, 564 FSupp.3d 823, 833 (D. Neb. 2021) ("But to opine that a particular substance *could* have been a cause of lung cancer is simply to testify to general causation—that is, to opine that the substance is cancerous. An opinion on specific causation requires testimony, to a reasonable degree of medical certainty, that a substance *did* cause the harm alleged.") (emphasis in original).

[A]n expert cannot simply assert that an employee was exposed to some unknown amount of a potential carcinogen, and some unknown amount of that potential carcinogen can cause cancer, so therefore exposure to that carcinogen *did* cause the employee's cancer: that's just the type of opinion that is connected to the data only by the *ipse dixit* of the expert, and need not be accepted by the Court.

(Citation and punctuation omitted; emphasis in original.) *Lancaster*, 564 FSupp.3d at 832.

Perhaps even more glaring, Blickenstaff could not explain why he credited the four studies linking cancer to railroad workers' exposure to toxins and rejected the three studies that did not, even though he conceded that those three studies took smoking into consideration. He further acknowledged that the four studies he credited showed only a weak association between exposure and cancer. To explain how he reached his conclusion, Blickenstaff said only that he focused on the totality of the evidence, which included consideration of studies involving non-railroad workers. He further explained that he relied on the IARC's evaluation of the various studies in reaching his conclusions, which again relates more to general causation than it does to specific causation. Thus, we cannot say that the trial court abused its discretion in finding this testimony insufficient to establish specific causation under

Rule 702. See *Kilpatrick v. Breg, Inc.*, 613 F3d 1329, 1336-1340 (IV) (A) (11th Cir. 2010) (considering various studies in general causation analysis and finding expert's testimony speculative and unreliable).

(b) *Differential diagnosis.*

Even if we were to conclude the trial court abused its discretion in evaluating Blickenstaff's methodology, which we do not, the trial court was still within its discretion to reject his testimony based on his differential diagnosis. A differential diagnosis is a "method by which a physician determines what disease process caused a patient's symptoms. The physician considers all relevant potential causes of the symptoms and then eliminates alternative causes based on a physical examination, clinical tests, and a thorough case history."⁷ (Citation omitted.) *Shiver*, 287 Ga. App. at 829 (1).

Here, Blickenstaff opined that it was "theoretically possible that [Luther] would not have developed lung cancer had it not been for his occupational exposure." Blickenstaff acknowledged Luther's decades of smoking, and stated that the risk of lung cancer is generally higher from smoking than it is from exposure to toxins, yet

⁷ We have held that differential diagnosis is one means of satisfying Rule 702's requirements. *Shiver*, 287 Ga. App. at 829 (1). The other method is "dose/response relationship" or "threshold phenomenon." *Id.*

he concluded that it was “unlikely” smoking was the sole cause. Instead, he attributed Luther’s cancer to the exposure, and when asked “[h]ow confident are you in your opinion that asbestos exposure at the railroad contributed to [Luther’s] lung cancer?” Blickenstaff responded, “I think it’s a reasonable assumption.” But this assumption is inconsistent with his admission that most people exposed to toxins do not get lung cancer.

Blickenstaff made assumptions that the exposure contributed to Luther’s lung cancer, while at the same time he acknowledged that smoking could be a contributing factor, yet he offered no explanation for why he ruled it out as the sole cause of Luther’s cancer. Instead, he stated only that he did not have to “commit to just one possibility.” He further conceded that smoking was a substantial risk for getting lung cancer, and it was possible smoking was the sole cause of Luther’s cancer, as most people exposed to these toxins did not develop lung cancer.

As the trial court found, this differential diagnosis falls short of what is required under Rule 702, and Blickenstaff’s refusal to rule out smoking renders his differential diagnosis unreliable. See *Shiver*, 287 Ga. App. at 829 (1); see also *Smith*, 343 Ga. App. at 515-516 (1) (explaining that differential diagnosis is not admissible where trial court finds expert did not apply method reliably); *Guinn v. AstraZeneca*

Pharmacueticals, 602 F3d 1245, 1253 (III) (A) (1) (11th Cir. 2010) (“an expert must provide a reasonable explanation as to why he . . . has concluded that any alternative cause suggested by the defense was not the sole cause of the plaintiff’s injury”) (citations and punctuation omitted); *Lancaster*, 564 FSupp.3d at 832 (expert’s refusal to rule out smoking as the sole cause of the plaintiff’s cancer rendered his differential diagnosis insufficient to establish specific causation); *McLaughlin v. BNSF R. Co.*, 439 FSupp.3d 1173, 1182 (III) (D. Neb. 2020) (expert’s differential diagnosis was insufficient where he failed to rule out smoking as sole cause of cancer); compare *MyFamilyDoc*, 366 Ga. App. at 465 (2) (differential diagnosis sufficient where expert considered other diseases that could have caused death and explained why he ruled in the specific condition as the cause of death and ruled out the other medical conditions). As a result, the trial court properly discounted Blickenstaff’s differential diagnosis. *Smith*, 343 Ga. App. at 513 (“In deciding whether an expert employed a reliable method, the trial court has discretion to consider whether the expert has adequately accounted for obvious alternative explanations.”) (citation and punctuation omitted); see also *Pluck v. BP Oil Pipeline Co.*, 640 F3d 671, 680 (III) (A) (6th Cir. 2011) (trial court properly excluded expert where differential diagnosis failed to rule out smoking as a cause of plaintiff’s cancer); *Mayhew*, 917 F2d at 963

("[A]lthough a [FELA] plaintiff need not make a showing that the employer's negligence was the sole cause, there must be a sufficient showing (i.e. more than a possibility) that a causal relation existed.").

In summary, when we apply our deferential standard of review and give the trial court the "leeway" we must in its role as gatekeeper, we cannot say the trial court abused that discretion, even if we might have reached a different decision.⁸ *General Elec. v. Joiner*, 522 U. S. 136, 143 (II) (118 SCt 512, 139 LE2d 508) (1997) ("deference . . . is the hallmark of abuse-of-discretion review"); *Willcox*, 355 Ga. App. at 545 (2); *Williams v. State*, 328 Ga. App. 876, 880 (1) (763 SE2d 261) (2014) (review under abuse of discretion standard recognizes that there is a "range of possible conclusions the trial judge may reach" and we will affirm a trial court's

⁸ By suggesting that the trial court — and this Court — overstepped its authority, weighed evidence and made credibility determinations, Judge Pipkin's dissent misreads our opinion and improperly seeks to limit the trial court's role as gatekeeper. An expert opinion that is based on assumptions and speculation, as here, does not go to the weight of the evidence or the credibility of the expert. *Swint v. Alphonse*, 348 Ga. App. 199, 206 (2) (820 SE2d 312) (2018) ("[I]nstead of speaking in terms of possibilities, the expert's testimony must show as an evidentiary threshold that the expert's opinion regarding causation is based, at the least, on the determination that there was a reasonable probability that the [exposure] caused the injury.") (citation and punctuation omitted). Rather, such an opinion is properly rejected under Rule 702, and our role as a reviewing court dictates that we affirm. *Pon*, 963 F3d at 1219 (III) (A); *Mayhew*, 917 F2d at 964.

decision “even though we would have gone the other way had it been our call”) (citation and punctuation omitted); *McDonald v. Garden Svcs.*, 163 Ga. App. 851, 852-853 (295 SE2d 551) (1982) (unless there has been an abuse of discretion, this Court will not substitute its judgment for the trial court’s, even if individual judges might have reached a different conclusion); *United States v. Pon*, 963 F3d 1207, 1219 (III) (A) (11th Cir. 2020) (“The deference we show trial courts on evidentiary rulings is especially pronounced in the *Daubert* context, where the abuse of discretion standard places a heavy thumb — really a thumb and a finger or two — on the [trial] court’s side of the scale.”) (citation omitted). We simply cannot substitute our own judgment for that of the trial court, which is tasked with evaluating the expert’s opinion under Rule 702. To conclude otherwise would essentially usurp the trial court’s role as gatekeeper. Accordingly, we affirm the trial court’s exclusion of the expert testimony and its grant of summary judgment.

Judgment affirmed. Rickman, J. , concurs. Doyle, P.J. concurs fully in division (a) and concurs in judgment only in division (b). Mercier, C. J., Barnes, P. J., Dillard, P. J., Brown, Land, and Watkins, JJ. , concur in judgment only. Miller, P. J., McFadden, P. J., Hodges, and Pipkin, JJ., and Senior Judge C. Andrew Fuller, dissent.

In the Court of Appeals of Georgia

A23A0839. BOWERS v. CSX TRANSPORTATION, INC.

MCFADDEN, Presiding Judge, dissenting.

Torts involving multiple contributing causes, particularly toxic torts, are different from torts with a single cause. That difference is recognized in the proof required of toxic tort claims involving multiple toxins. See *In re Meridia Products Liability Litigation*, 328 FSupp2d 791, 798 (I) (N.D. Ohio 2004). The majority opinion overlooks that difference and in doing so overlooks the difference between a gatekeeper and a fact finder. So I respectfully dissent.

1. *Facts*

The expert testimony the majority would exclude is that of the plaintiff's medical expert, Dr. Theron Blickenstaff. Blickenstaff relied on — and as authorized by OCGA § 24-7-703 assumed the accuracy of — the investigative report prepared by Bowers's other expert witness, industrial hygienist R. Leonard Vance as well as a deposition given by Luther Bowers himself, shortly before his death.

Blickenstaff reached his specific causation opinion after applying a differential diagnosis. “Differential etiology, or differential diagnosis, is a technique to identify the cause of an illness or condition by identifying common causes of the symptoms or diagnosis at issue and then, one-by-one, ruling out causes until the most probable one is isolated.” *Sarkees v. E. I. Dupont De Nemours & Co.*, 15 F4th 584, 589, n.8 (2d Cir. 2021) (citation and punctuation omitted).

In ruling in Bowers’s exposures as specific potential causes, Blickenstaff applied the Bradford Hill criteria, a widely accepted set of criteria for determining causation in cases of chronic disease. The Bradford Hill criteria are an epidemiological study approach employed to assess when an association can truly be deemed causal. *In re Lipitor (Atrovastatin Calcium) Mktg., Sales Practices and Products Liability Litigation*, 892 F3d 624, 638 (II) (A) (2) (B) (4th Cir. 2018). Blickenstaff reviewed the pleadings, the discovery responses, and Bowers’s medical records. He reviewed peer-reviewed scientific literature as well as three monographs from the International Agency for Research on Cancer, an agency of the World Health Organization that is the most widely accepted source for classifying agents as causing cancer. “Its monographs are considered authoritative by agencies of the United States. . . .” *Lightfoot v. Ga.-Pacific Wood Products*, 5 F4th 484, 489 (II) (4th

Cir. 2021). Those monographs concluded that exposure to diesel exhaust, exposure to asbestos, and exposure to silica all increase the risk of developing lung cancer. Based on the literature, Blickenstaff concluded that even low exposures to diesel exhaust, silica, or asbestos increase the risk of lung cancer, even in smokers.

As for the extent of Bowers's exposure to the toxins, Blickenstaff testified that he reviewed and relied on the report of industrial hygienist Vance. CSX has not challenged Vance's report. Based on Bowers's deposition, Vance's report, and his general knowledge from his own experience in analyzing cases involving railroad workers, Blickenstaff concluded that Bowers had experienced "significant" exposures to diesel exhaust, asbestos, and crystalline silica.

Blickenstaff's written report concludes,

Mr. Bowers was diagnosed with lung cancer in 2014 and died from lung cancer in 2018. He did railroad work for 33 years from 1969 to 2002, and was exposed to diesel exhaust, crystalline silica, and asbestos. His heavy smoking no doubt contributed to the causation of his lung cancer, but each of his work-related exposures also increased the risk in a superadditive or multiplicative manner. Based on my education and experience, and on the documented exposures to diesel exhaust, crystalline silica, and asbestos, it is my opinion, to a reasonable degree of medical certainty, that Mr. Bowers' railroad work exposures were causally related to his lung cancer.

2. Applicable standards

(a) The trial court's gatekeeping role

A trial court's responsibility to decide whether to admit expert testimony has been described as "a gatekeeping role." *Daubert v. Merrell Dow Pharmaceuticals*, 509 U. S. 579, 597 (III) (113 SCt 2786, 125 LE2d 469) (1993). We give broad deference to the trial court to fulfill this role. "Whether expert testimony ought to be admitted under OCGA § 24-7-702 is a question committed to the sound discretion of the trial court. We will not disturb the trial court's determination absent a manifest abuse of discretion." *Allen v. CFYC Constr.*, 354 Ga. App. 890, 892 (1) (842 SE2d 297) (2020) (citation and punctuation omitted).

But that deference obtains only so long as the trial court acts within the boundaries of that gatekeeping role. As the majority acknowledges, it is not for the courts to weigh the evidence.

[I]t is not the role of the trial court to make ultimate conclusions as to the persuasiveness of the proffered evidence. Indeed, a trial court's gatekeeper role under *Daubert* is not intended to supplant the adversary system or the role of the jury. Quite the contrary, vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.

Emory Univ. v. Willcox, 355 Ga. App. 542, 543-544 (1) (844 SE2d 889) (2020) (punctuation omitted), quoting *Quiet Technology DC-8 v. Hurel-Dubois UK Ltd.*, 326 F3d 1333, 1341 (II) (A) (11th Cir. 2003). Accord *Lancaster v. BNSF R. Co.*, 564 FSupp3d 823, 830-831 (D. Neb. 2021), affirmed by 75 F4th 967 (8th Cir. 2023), (“The primary thrust of [the defendant’s] argument is that [the challenged expert] failed to ask those people a number of questions that, according to BNSF, were essential to his opinion. The Court is not persuaded that the questions [that expert] did ask were insufficient. Any deficiencies in [the expert’s] interview technique go to the weight, not admissibility, of his opinions.”) (emphasis and record citation omitted).

We should bear in mind Chief Justice Rehnquist’s warning: “I do not doubt that Rule 702 confides to the judge some gatekeeping responsibility in deciding questions of the admissibility of proffered expert testimony. But I do not think it imposes on them either the obligation or the authority to become amateur scientists in order to perform that role.” *Daubert*, 509 U. S. at 600–601 (Rehnquist, C. J., concurring in part and dissenting in part).

A trial court may not, under color of that gatekeeping role, alter the burden of proof. See *United States v. Frazier*, 387 F3d 1244, 1272 (IV) (B) (11th Cir. 2004)

(court’s exercise of its gatekeeping responsibilities must not “supplant the adversary system”) (citation and punctuation omitted); *Ruiz-Troche v. Pepsi Cola of P.R. Bottling Co.*, 161 F3d 77, 85 (II) (E) (1) (1st Cir. 1998) (“*Daubert* does not require that a party who proffers expert testimony carry the burden of proving to the judge that the expert’s assessment of the situation is correct. As long as an expert’s scientific testimony rests upon good grounds, based on what is known, it should be tested by the adversary process. . . .”) (citation and punctuation omitted). And our Supreme Court has warned against requiring showings that “may not be possible.” *Scapa Dryer Fabrics v. Knight*, 299 Ga. 286, 292, n. 9 (788 SE2d 421) (2016).

The majority adopts many of CSX’s arguments and holds, on the basis of those arguments, that Blickenstaff’s methodology is unreliable and so that his testimony must be excluded. In doing so, the majority alters the applicable standard, requires showings that are not required under that standard — and that may not be possible, and weighs the evidence.

(b) *A plaintiff’s burden of proof*

In a non-FELA toxic tort case, the plaintiff’s burden of proof is to “introduce sufficient evidence to *allow a jury to find that more than likely*, their exposure to a particular defendant’s product was *a factor* in producing their injuries.” *John Crane*,

Inc. v. Jones, 278 Ga. 747, 748, n. 1 (604 SE2d 822) (2004) (emphasis added). *John Crane* called a jury instruction incorporating that language “entirely consistent with established law regarding the concurrent negligence of joint tortfeasors.” Id. at 748, citing *Gooch v. Ga. Marble Co.*, 151 Ga. 462, 463-464 (107 SE 47) (1921). So when a plaintiff alleges that exposure to multiple carcinogens (like the multiple negligent acts of joint tortfeasors addressed in *John Crane*) caused his injury, the plaintiff must “introduce sufficient evidence to allow a jury to find that *more than likely*, [his] exposure[s were] a factor in producing [his] injuries.” *John Crane*, 278 Ga. at 748, n. 1. *John Crane* was cited with approval in our Supreme Court’s more recent decision, *Scapa*, 299 Ga. at 290.

Scapa clarified the plaintiff’s burden of proof in non-FELA toxic tort cases. *John Crane* had held that a plaintiff is not required to prove that “each individual tortfeasor’s conduct constitute[s] a ‘substantial’ contributing factor in the injury in order to” prove “proximate cause.” 278 Ga. at 747. *Scapa* reaffirms that holding and answers the question it left open: what does a plaintiff have to prove? The answer is “a meaningful contribution.” 299 Ga. at 291. *Scapa* goes on to hold that “a ‘de minimis’ contribution is not enough” under our general tort law. 299 Ga. at 290.

But this case falls under the Federal Employers' Liability Act (FELA), 45 USC § 51 et seq. So the requisite causal contribution is “any part, even the slightest.” *Smith v. CSX Transp.*, 343 Ga. App. 508, 510 (1) (a) (806 SE2d 890) (2017) (citation and punctuation omitted).

John Crane and *Scapa* preclude any sort of algorithm by which a court can measure those standards as a matter of law. That preclusion is evident from the standards those cases set out. The difference between, for example, “substantial” and “meaningful” is not susceptible to numerical expression or determination as a matter of law. And our Supreme Court has expressly disavowed any “suggest[ion] that it is essential for the plaintiff’s expert to estimate the extent of the exposure in precise quantitative terms. Such an estimate may not be possible in many cases. . . .” *Scapa*, 299 Ga. at 292, n. 9. Drawing that line is a quintessential jury question.

A plaintiff’s burden in ordinary toxic tort cases is to “introduce sufficient evidence to allow a jury to find that *more than likely*, their exposure to a particular defendant’s product was *a factor* in producing their injuries.” *John Crane, Inc.*, 278 Ga. at 748, n. 1. (Emphasis added). See also *Scapa*, 299 Ga. at 290 (plaintiffs “had to show that exposure . . . was a contributing factor in bringing about” injury) (citation and punctuation omitted). It follows that a plaintiff is not required to rule out

other contributing factors or even the possibility that another factor might conceivably be the sole factor. See OCGA § 24-14-3 (“[I]n all civil proceedings, a preponderance of evidence shall be considered sufficient to produce mental conviction.”).

3. Majority opinion

It follows under *John Crane* and *Scapa* that it is not for the courts to hold that a plaintiff has failed to meet that burden on the basis of the weight of the evidence or because we can conceive of evidence that would be more precise or more persuasive. So I cannot agree with the majority’s holding, in Division (a), that the unavailability of a specific chronology of Luther Bowers’s various jobs and of the specifics of his duties in those jobs is a basis for excluding the testimony of his expert witness.

And contrary to the majority’s analysis in Division (b), it is not a plaintiff’s burden to disprove the possibility that a different contributing cause might have been the sole cause. There is no room in the burden set out in *John Crane* and *Scapa* for us to require Bowers to somehow prove that his smoking was not the sole cause of his lung cancer. A plaintiff’s burden does not entail disproving every alternative possibility.

(a) Reliable methodology

In Division (a), “Reliable methodology,” the majority adopts the trial court’s rejection of Blickenstaff’s testimony on the basis that “he failed to show how the various studies on which he relied applied to Luther’s case, rendering his methodology unreliable.” I disagree. The majority’s criticisms of Blickenstaff’s work go to the weight of his testimony and catalogue evidence that might have added weight but was apparently not available.

(i) Studies upon which Blickenstaff relied

According to the majority, Blickenstaff “looked at multiple studies and pooled the data from those studies to get statistically significant results, from which he concluded that the exposure contributed to Luther’s lung cancer.” That is not the methodology that Blickenstaff employed. He did not testify that *he* pooled the data from multiple studies to get statistically significant results. Rather he testified that he relied on studies that pooled data, explaining that when information from multiple studies is pooled, statistical significance is greatly increased. Such pooled studies, he explained, are “more valuable than any . . . individual studies. . . .”

The majority goes on to reject Blickenstaff’s testimony on the basis that there is no evidence of “how Luther’s jobs compared to those cited in the studies” or of “whether Luther’s exposure was similar to those cited in the studies” and on the basis

that the machinery and equipment used by Bowers “presumably” differed from those “the studies likely involved.” Instead, the majority holds, “Blickenstaff made assumptions regarding the amount of exposure in order to draw comparisons to the studies.” Those arguments are the basis for the majority’s holding that Blickenstaff “could not explain how the information in those studies could be applied to Luther’s case[.]”

But Blickenstaff did offer an explanation. He was challenged during his deposition about failing to distinguish Bowers’s jobs from those of the workers described in those studies. His response rebuts the majority’s view of the importance of job descriptions: “Doing it by job description is better than nothing, but it’s somewhat crude, because within a given job description, there can be a lot of individual variability in the exposures.” And he explained that although the pooled studies did not all involve solely railroad workers, the key was that, Bowers, like the subjects of the pooled studies, had “significant exposure.” As to additional information about those jobs, he testified,

I don’t think that’s necessary in this case. The conclusion of [the International Agency for Research on Cancer of the World Health Organization] was a pretty firm one, that it is causal, and in these three additional — well, the one additional study about the diesel exhaust,

since that's what we are talking about, adds, I think, a significant degree of information that exposure to diesel exhaust increases the risk of getting lung cancer, and that's the bottom line here, and I think delving into the details of each one of these studies doesn't necessarily help in making that determination. It would be nice if you could do that, but it's really — it's not possible here, since we don't have quantitative estimates of his exposure.

I find that response pretty persuasive. The majority apparently does not. That doesn't matter. It is certainly fair to say that the evidence would be stronger if we had more information about Bowers's exposures and studies that lined up precisely with his exposures. But the strength and weight of the evidence is for the jury to evaluate. *Santana v. State*, 308 Ga. 706, 709 (1) (842 SE2d 14) (2020) (the jury decides what credibility and weight to give expert opinions). See also *John Crane*, *supra*, 278 Ga. at 748.

Finally under the heading Reliable methodology, the majority calls “perhaps even more glaring” what it perceives as Blickenstaff's inability to “explain why he credited the four studies linking cancer to railroad workers' exposure to toxins and rejected the three studies that did not, even though he conceded that those three studies took smoking into consideration.” The majority is mistaken.

As noted above, Blickenstaff explained that those seven studies were studies included in a monograph prepared by the International Agency for Research on Cancer of the World Health Organization. The Agency looked at not only those seven studies, he explained, but also meta-analyses, animal studies, mechanistic studies, and studies in nonrailroad workers and reached a consensus that exposure to diesel exhaust causes lung cancer. Blickenstaff testified that he thus relied on the totality of the evidence included in the Agency monographs as well as the animal studies, the mechanistic studies, and the literature published since the publication of the monograph. See *Gen. Elec. Co. v. Joiner*, 522 U. S. 136, 146-147 (III) (118 SCt 512, 139 LE2d 508) (1997) (noting that studies may support a conclusion either “individually or in combination”). And, as noted above, Blickenstaff explained that while more information about Bowers’s exposure in comparison to the study subjects “would be nice” the key was that, Bowers, like the subjects of the pooled studies, had “significant exposure.”

(ii) *Blickenstaff’s assumptions*

The majority also faults Blickenstaff’s testimony as speculative, noting that throughout his deposition he stated that he made certain assumptions. Blickenstaff answered that as well.

A. [I]t's very reasonable to assume that [Bowers's exposure to diesel exhaust] was above background levels.

Q. But that's an assumption that you have made?

A. It's an assumption based on general knowledge and my experience in doing other cases in this area and reading lots of industrial hygiene reports.

“Trained experts commonly extrapolate from existing data.” *Joiner*, 522 U. S. at 146 (III). An expert can rely on assumed facts in forming his or her opinion, so long as there is “some support for those assumptions in the record. [M]ere weaknesses in the factual basis of an expert witness' opinion bear on the weight of the evidence rather than its admissibility.” *McLean v. 988011 Ontario, Ltd.*, 224 F3d 797, 801 (II) (6th Cir. 2000) (citations and punctuation omitted). To the extent Blickenstaff's assumptions are not based on his own knowledge, they rest on precisely the sort of reliance authorized for expert witnesses by OCGA § 24-7-703.

It follows, moreover, that the trial court's holding that, “Dr. Blickenstaff finds it unnecessary to undertake a meaningful analysis of Mr. Bowers' exposure to the toxic substances which he claims contributed to the development of lung cancer,” is wholly unsupported by the record.

(iii) *General and specific causation*

Next the majority holds that Blickenstaff has conflated general and specific causation. The distinction between general and specific causation is a legal distinction. See *Butler v. Union Carbide Corp.*, 310 Ga. App. 21, 25 (1) (712 SE2d 537) (2011). It is not a basis for challenging Blickenstaff's methodology.

It is at best a basis for challenging specific parts of his testimony. Under *Scapa*, that distinction is at least arguably a basis for challenging fit. 299 Ga. at 293. But *Scapa* provides no basis for excluding Blickenstaff's testimony in its entirety. *Scapa* was an appeal from a verdict and judgment in favor of a plaintiff in an asbestos case. The Supreme Court held that the verdict had to be reversed because the plaintiff's expert had "invited the jury to find causation if there was any exposure by Scapa, even if it were only de minimis." *Scapa*, 299 Ga. at 293. So if the majority were right that Blickenstaff had conflated specific and general causation and if that conflation could mislead the jury, the available remedy would be exclusion of the improper testimony.

(A) *Cumulative exposure*

The same is true of the trial court's holding, with which the majority correctly disagreed, that Blickenstaff's testimony was due to be rejected because, as CSX

argued below, “Dr. Blickenstaff resorted to the discredited ‘every exposure’ theory of causation.”

It is true that there is case law rejecting, sometimes in quite forceful language, “the theory that ‘each and every’ exposure to asbestos ‘cumulates’ and should therefore be considered a cause of injury, regardless of the type of mesothelioma, the exposure ‘dose,’ the type of asbestos, or the passage of time.” *Rockman v. Union Carbide Corp.*, 266 FSupp3d 839, 848-849 (II) (D. Md. 2017). But *Rockman*, on which CSX relies, is short on analysis of scientific materials and long on the trial court’s strongly felt common sense intuitions. And in setting up that argument in Blickenstaff’s deposition, CSX developed a record showing that there is a substantial body of scientific material “support[ing] the conclusion that any exposure to diesel exhaust, silica or asbestos increases the risk of getting lung cancer even in smokers.”

Such a record ought to inspire judicial modesty. It should call to mind Chief Justice Rehnquist’s warning that judges should not try to “become amateur scientists.” *Daubert*, 509 U. S. at 601 (Rehnquist, C. J., concurring in part and dissenting in part).

The better approach is for courts to distinguish a cumulative exposure theory from an every-exposure theory. “[I]t may be true as a matter of medical science that

every exposure increases the risk[, but] . . . that does not show causation attributable to a specific product as a matter of law.” *Dugger v. Union Carbide Corp.*, Case No. CCB-16-3912, 2019 U.S. Dist. LEXIS 171168, 2019 WL 4750568, at *4 (D. Md. Sept. 30, 2019) (addressing mesothelioma).

CSX conflates those two theories, advocating rejection of “the ‘cumulative exposure’ or ‘every exposure’ theory.” But the other two cases CSX cites in support of such rejection are consistent with that better approach.

Indeed, in one of those cases, the Seventh Circuit upheld the disqualification of an expert on the basis that his “theory conflated ‘each and every exposure’ with a cumulative exposure theory” and that his “asserted theory would be that any and all exposure to asbestos is a substantial contributing factor to lung cancer.” *Krik v. Exxon Mobil Corp.*, 870 F3d 669, 675, 676 (A) (7th Cir. 2017).

The other, an unpublished opinion of the Tennessee Court of Appeals, did affirm a trial court who had rejected what he called the “any exposure theory.” But the appellate court affirmed on the basis that the record contained “no evidence . . . that asbestos was located in any of the areas where Decedent worked.” *Andrews v. Norfolk S. Ry. Co.*, Case No. E201800508COAR3CV, 2019 WL 549939, at*3, *10 (Tenn. Ct. App. Feb. 12, 2019).

In *Scapa* our Supreme Court has taken that better approach. That court reversed the verdict and judgment because the plaintiff's expert had "invited the jury to find causation if there was any exposure by Scapa, even if it were only de minimis." *Scapa*, 299 Ga. at 293. Consequently, his "testimony did not 'fit' the pertinent causation inquiry under Georgia law, and it should have been excluded by the trial court, acting as gatekeeper, because it could only serve to confuse the jury on the issue of causation." *Id.* at 293-294.

But in so holding our Supreme Court made clear that it was not undertaking to pass judgment upon a cumulative exposure theory as a matter of medical science:

That is not to say that expert testimony premised upon a cumulative exposure theory could never be relevant to causation under Georgia law. We suppose, for instance, that if an expert coupled his reliance on the cumulative exposure theory with reliable data sufficient to show that the exposure in question were more than de minimis — and if the expert qualified his ultimate opinion as to causation, conditioning it upon there having been more than a de minimis exposure — the opinion then might "fit" the pertinent causation inquiry, notwithstanding that the extent of exposure is disputed. In that instance, the jury would have to resolve the extent of the exposure, and if the jury accepted that the exposure was as significant as the data of the expert suggested, it then could accept his opinion as to causation. But in this case, Dr. Abraham did not undertake to estimate the extent of exposure in any meaningful way, and he did not

qualify his opinion on causation by limiting it to such estimate of exposure.

Scapa, 299 Ga. at 291-292.

In other words, a scientist might say that the last straw was a contributing cause of the camel's broken back. A judge might say that it was not a proximate cause. And both could be right.

"Proximate" is taken "from Latin proximatus 'drawn near,' past participle of proximare, from proximus 'nearest.'" New Webster's Dictionary of the English Language, Deluxe Encyclopedic Edition, p. 771 (1986). Proximate cause is a matter of law and policy, a determination of whether a causal chain is short and straight enough to warrant liability. See *Palsgraf v. Long Island R. Co.*, 248 N.Y. 339, 346-347 (162 NE 99) (1928). A determination that a cause is not a proximate cause is not a determination that it is not, in fact, a cause.

(B) Epidemiological studies

The majority faults Blickenstaff for relying on epidemiological studies. According to the majority the evidence derived from such studies "goes to general causation, which is not in dispute, and should not be equated with specific causation.

It is one thing,” the majority holds, “to say exposure *could* cause cancer, but quite another to say that it *did*.”

On the contrary, “[i]t is well-settled that . . . epidemiological studies may be powerful evidence of causation. . . .” *Rider v. Sandoz Pharm. Corp.*, 295 F3d 1194, 1198 (IV) (A) (11th Cir. 2002), In fact, the holding in *Rider* is that “the *lack* thereof is not fatal to a plaintiff’s case.” *Id.* (emphasis added).

As noted above, Blickenstaff applied the Bradford Hill criteria and testified that they are a widely accepted set of criteria for determining causation in cases of chronic disease “taught to every graduate-level epidemiology student.” That acceptance is reflected in case law. See *In re Lipitor*, 892 F3d at 638 (II) (B).

The cases the majority cites for the proposition that epidemiological studies cannot evidence specific causation do not support that proposition. There is no mention of epidemiological studies in *Smith v. CSX Transp.*, 343 Ga. App. at 513 (affirming the decision of a trial court who had found that the plaintiff’s expert’s “testimony is ‘surprisingly unsubstantiated and superficial — [the expert] simply concludes that because a weight lifter or body builder gets the same injury from overhead lifting then the Plaintiff must also have exacerbated his condition from work-related overhead lifting.’”) .

Lancaster, 564 FSupp3d 823, does involve epidemiological studies. And in many respects, the facts in *Lancaster* are on all fours with the present case: it involves a claim that the decedent’s “lung cancer was caused by exposure to diesel exhaust, silica, or asbestos during the course of his 33-year career with the defendant’s railroad;” and it involves a defense “point[ing] instead to [his] history of smoking cigarettes.” *Id.* at 825.

But the holding in *Lancaster* is not on all fours and does not support the majority’s opinion of epidemiological studies. As the appellate court explained in its order affirming, the medical expert’s testimony in that case was excluded for reasons very different from those at issue in the present case: insufficient evidence of exposure.

There is no direct evidence that [plaintiff’s deceased] was exposed to asbestos or diesel combustion fumes. Even if a jury could infer that [he] had been exposed, there is no evidence of the level of exposure. While a quantifiable amount of exposure is not required to find causation between a toxic exposure and injury, see *Bonner v. ISP Technologies*, 259 F3d 924, 931 (8th Cir. 2001), *there must be, at a minimum, “evidence from which the factfinder can conclude that the plaintiff was exposed to levels of that agent that are known to cause the kind of harm that the plaintiff claims to have suffered,”* *Wright v. Willamette Indus.*, 91 F3d 1105, 1107 (8th Cir. 1996). There is no such evidence here. See

Bland v. Verizon Wireless, (VAW), 538 F3d 893, 898 (8th Cir. 2008) (holding there was “*simply too great an analytical gap*” to support admissibility where expert lacked knowledge of the degree of plaintiff’s exposure to toxin (citation omitted)).

Lancaster v. BNSF R. Co., 75 F4th 967, 970-971 (8th Cir. 2023) (emphasis added).

Here Bowers’s evidence of the extent of his exposure to the toxins surpasses that minimum. There is no analytical gap. Blickenstaff testified that he reviewed and relied on the report of industrial hygienist Vance. CSX has not challenged Vance’s report. As noted above, Blickenstaff relied on Bowers’s deposition, Vance’s report, and his general knowledge from his own experience in analyzing cases involving railroad workers.

(b) *Differential diagnosis*

Under this heading, the majority holds that Blickenstaff’s testimony is deficient because he “offered no explanation for why he ruled [smoking] out as the sole cause of Luther’s cancer.” The majority’s premise is incorrect. It is true that an expert’s evaluation of a differential diagnosis must consider alternative causes. But Bowers is not required to rule out that possibility.

A plaintiff’s burden in an ordinary toxic tort case, as noted above, is to “introduce sufficient evidence to allow a jury to find that *more than likely*, their

exposure to a particular defendant's product was *a factor* in producing their injuries.” *John Crane*, 278 Ga. at 748, n. 1 (emphasis added). Under FELA, Bowers's burden is certainly no heavier: the requisite causal contribution is “any part, even the slightest.” *Smith*, 343 Ga. App. at 510 (1) (a).

“Differential etiology, or differential diagnosis, is a technique to identify the cause of an illness or condition by identifying common causes of the symptoms or diagnosis at issue and then, one-by-one, ruling out causes until the *most probable* one is isolated.” *Sarkees v. E. I. Dupont De Nemours & Co.*, 15 F4th at 591, n. 8. “[T]he central inquiry when evaluating a differential diagnosis is whether experts at least consider alternative causes. To be sure, not all opinions based on a differential diagnosis will be reliable. But doctors need not rule out every conceivable cause in order for their differential-diagnosis-based opinions to be admissible.” *Kovach v. Wheeling & Lake Erie R. Co.*, 556 FSupp3d 762, 771 (3) (B) (iii) (N.D. Ohio 2021) (citations and punctuation omitted).

Moreover the majority does not cite, and I am not aware of, any evidence that it is even *possible* with available technology to determine which of multiple carcinogens a cancer patient had been exposed to did or did not cause that patient's

cancer. See *Scapa*, 299 Ga. 286 at 292, n. 9 (warning against requiring showings that “may not be possible”).

Blickenstaff testified that Bowers’s smoking was a contributing cause. But he also explained that the effect of smoking on the risk of lung cancers from exposure to asbestos is multiplicative. To the extent that the possibility that Bowers’s smoking was the sole cause of his illness cannot be absolutely ruled out, that possibility “go[es] to the weight to be given the testimony by the factfinder, not its admissibility.” *Kirk v. Schaeffler Group USA*, 887 F3d 376, 392 (II) (B) (2) (8th Cir. 2018) (citations and punctuation omitted). Accord *Johnson v. Mead Johnson & Co.*, 754 F3d 557, 564 (II) (8th Cir. 2014); *Westberry v. Gislaved Gummi AB*, 178 F3d 257, 265-266 (II) (C) (4th Cir. 1999) (not ruling out other causes affects weight, not admissibility). See also *Lauzon v. Senco Products*, 270 F3d 681, 693 (I) (E) (8th Cir. 2001) (the requirement to rule out other possible causes “cannot be carried to a quixotic extreme”).

For those reasons, I conclude that the trial court abused his discretion and I respectfully dissent.

In the Court of Appeals of Georgia

A23A0839. BOWERS v. CSX TRANSPORTATION, INC.

PIPKIN, Judge, dissenting.

While I agree with portions of Presiding Judge McFadden’s dissent, I believe the issue in the case to be more straightforward. As noted by both the majority and dissenting opinions, “[t]he weight to be given to admissible expert testimony is a matter for the jury.” (Citation omitted.) *Ouanzin v. Coast Dental Servs., Inc.*, 354 Ga. App. 168, 174 (2) (840 SE2d 686) (2020). Indeed, under the federal counterpart to Rule 702, “the rejection of expert testimony is the exception rather than the rule.” (Citations and punctuation omitted.) *Moore v. Intuitive Surgical, Inc.*, 995 F3d 839, 850 (11th Cir. 2021). Instead, “[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.” *Id.*

Here, in rejecting the expert's testimony as "unreliable," the trial court improperly considered the weight and credibility of the expert's testimony and did not consider the usual list of factors for determining reliability.¹ See *Ouanzin*, 354 Ga. App. at 174. And, unfortunately, the majority opinion has fallen into a similar trap, assessing the expert's credibility rather than whether his testimony is reliable in the scientific sense. See, e.g., *Swint v. Alphonse*, 348 Ga. App. 199, 205 (1) (820 SE2d 312) (2018) (noting "that a contradiction in an expert's testimony is no cause for disregarding it and the fact that an expert witness's testimony is contradictory has never rendered that testimony inadmissible." (citation and punctuation omitted)); *Layfield v. Dept. of Transp.*, 280 Ga. 848, 851 (1) (632 SE2d 135) (2006) ("If the expert's opinion was based upon inadequate knowledge, this does not mandate the exclusion of the opinion but, rather, presents a jury question as to the weight which should be assigned the opinion." (Citation and punctuation omitted.)).

Based on the foregoing, I would hold that the trial court abused its discretion by excluding the expert witness's testimony. Also, because the trial court granted summary judgment based upon this exclusion, I would vacate the grant of summary

¹ As noted by the majority opinion, the trial court made the same mistake in its "sufficient facts and data" analysis. Maj. Op. at 11, n. 6.

judgment and remand the case for the trial court to reconsider whether a genuine issue of material fact exists as to causation in light of the expert's testimony.

I am authorized to state that Presiding Judge Miller, Judge Hodges and Senior Judge Fuller join in this dissent.