

**FOURTH DIVISION
DILLARD, P. J.,
RICKMAN and BROWN, JJ.**

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October 21, 2020

In the Court of Appeals of Georgia

A20A0899. WADLEY et al. v. MOTHER MURPHY'S
LABORATORIES, INC. et al.

RICKMAN, Judge.

Mildred Wadley and Darryl A. Wadley, as Administrator of the Estate of James Wadley, sued Mother Murphy's Laboratories, Inc., Illes Food Ingredients, Ltd., and First Illes Investments, LLC, among other companies, for damages stemming from the death of James Wadley, which they alleged was caused by his exposure to flavorings containing the compound "diacetyl" that were manufactured, marketed, distributed and sold by the defendants and used by his employer.¹ The Wadleys asserted claims for negligence, strict product liability, and strict product liability - failure to warn; Mildred Wadley asserted claims for loss of consortium and wrongful

¹ James Wadley died in 2012, and the complaint alleges that one of the permanent injuries he suffered was bronchiolitis obliterans, a lung disease.

death; and Darryl Wadley asserted an executor's claim. The trial court issued orders granting summary judgment to Mother Murphy and Illes and granting Mother Murphy's motion to exclude the specific causation testimony of one of the Wadleys' expert witnesses. The Wadleys appeal those orders and contend that, in granting the motions, the trial court inconsistently and improperly applied Georgia's expert witness standard as set forth in OCGA § 24-7-702 (b). For reasons that follow, we reverse and remand with direction.²

Summary judgment is appropriate when there is no genuine issue as to any material fact and the movant is entitled to judgment as a matter of law. OCGA § 9-11-56 (c). "In reviewing the grant or denial of a motion for summary judgment, we apply a de novo standard of review, and we view the evidence, and all reasonable conclusions and inferences drawn from it, in the light most favorable to the nonmovant." (Citation and punctuation omitted.) *Gervin v. Retail Property Trust*, 354 Ga. App. 11, 11 (840 SE2d 101) (2020).

² We note that consideration of this appeal was hindered by the Wadleys' citation to statements of material fact as opposed to actual evidence in this voluminous record, the omission of the Wadleys' opposition to Mother Murphy's motion to exclude, and the lack of complete deposition transcripts for any witness, particularly experts.

So viewed, the evidence showed that James Wadley worked at a commercial bakery in Forest Park, Georgia (the plant) from 1970 to 2001. During his employment, Wadley worked primarily in the refrigerated dough section and at various times held the position of mixer operator, mixer helper, or line attendant. As a mixer operator, Wadley would add ingredients, including butter chips and liquid butter flavorings, to the mixer. One of Wadley's co-workers testified that Wadley also worked in the plant's butter chip room.

From approximately 1997 to 2001, Mother Murphy sold the plant a liquid artificial butter flavoring that contained diacetyl.³ That butter flavoring was used in the production of frozen bread sticks, which were manufactured in the refrigerated dough section of the plant.

From 1997 to 2008, Illes manufactured and sold to the plant two butter flavoring products that contained diacetyl. Those butter flavorings were used in the plant's butter chip room and in the plant's refrigerated dough section.

During the discovery process in this case, the Wadleys identified Mark Rigler, Ph.D., a microbiologist and director of an engineering consulting firm, as an expert

³ The parties dispute whether Mother Murphy last sold its product to the plant in 2001 or 2002 and the evidence in the record on this issue is conflicting, but resolution of the dispute is not required to address the issues in this appeal.

witness to offer opinions regarding the ability of flavoring products containing diacetyl to release diacetyl during normal use. Dr. Rigler reformulated one of the Illes butter flavoring products used at the plant to determine the emission of diacetyl into the air from that product in a small emission chamber. The results of Rigler's study indicated that diacetyl emissions from small spills of the product, spread over multiple surface areas, will cause elevated amounts of diacetyl in the air, and that mixing or agitating flavoring components will cause more diacetyl to be emitted into the air. The study showed that the diacetyl concentrations detected at 1.5, 2.5, and 6 hours were 447, 238, and 68 times higher than the recommendations for short term exposure to diacetyl issued by the National Institute for Occupational Safety and Health (NIOSH).⁴

⁴ In 2016, NIOSH issued a report establishing recommended exposure limits for diacetyl "to reduce the risk of respiratory impairment (decreased lung function) and the severe irreversible lung disease obliterative bronchiolitis associated with occupational exposure to th[is] compound." NIOSH recommended keeping exposure to diacetyl below a concentration of 5 parts per billion as a time-weighted average during a 40-hour work week and recommended a short-term exposure limit for diacetyl of 25 parts per billion for a 15-minute time period. In its report, NIOSH cited a 2010 article co-authored by Rigler and entitled, "Emission of Diacetyl (2,3 butanedione) from Natural Butter, Microwave Popcorn Butter Flavor Powder, Paste, and Liquid Products."

Rigler also reviewed the ingredients lists for the other Illes diacetyl-containing product used at the plant and the Mother Murphy diacetyl-containing product used at the plant and compared them to the ingredients found in butter flavor formulations he had researched. Based on studies his company had done on diacetyl-containing products as well as his education, experience, and published research, Rigler opined that the emission of diacetyl from a small amount (milligrams) of the Illes product and the Mother Murphy product would produce a level of at least 500 to 1000 parts per billion of diacetyl in the air at room temperature in a closed, non-ventilated area.

In his expert report, Rigler described three industrial hygiene studies conducted at the plant by outside companies in 2004, 2006, and 2008. The 2004 study was initiated after the plant owner's safety director learned that exposure to diacetyl or diacetyl-containing flavors may present a health hazard to employees. The objective was to assess employees' exposure to diacetyl vapors in the butter flavoring operation. Following the 2004 study, recommendations were made on ways for the plant to reduce its employees' exposure to diacetyl, some of which the plant implemented. In 2006, another industrial hygiene study was conducted to determine if the recently implemented control strategies had been successful in reducing employees' exposure to diacetyl in the butter flavoring production operation. The

results showed some improvement, with the diacetyl vapor concentration being reduced in the butter chip room. Additional recommendations were made to further reduce employees' exposure. In 2008, another industrial hygiene site visit sampled two processes, the butter chip room and the refrigerated dough section. The highest personal breathing zone concentrations for diacetyl on the refrigerated dough line were associated with the mixer operator. Suggestions were offered for additional exposure control at the plant.

Rigler's expert report also explained how studies conducted by his company since 2006 showed that diacetyl emissions from butter flavored products were continuous over time. Rigler opined that the diacetyl concentrations measured in his company's studies were consistent with the diacetyl levels measured in the plant in 2004, 2006, and 2008, and that "the diacetyl containing butter flavors used at the [plant and] reported in the 2004, 2006, and 2008 industrial hygiene studies were the source of the airborne diacetyl in the areas tested at the [plant]."⁵

⁵ Illes and Mother Murphy moved to exclude Rigler's expert testimony, but the trial court denied their motions, ruling that "[d]efendants' objections to Dr. Rigler's inability to take into account how [d]efendants' products were used in the plant . . . [and] [d]efendants' challenges to the breadth of opinions offered in Dr. Rigler's report . . . more appropriately challenge the weight rather than the admissibility [of Dr. Rigler's opinions]." The parties have not appealed that order.

As another expert witness, the Wadleys identified David Egilman, who has a bachelor of science degree in molecular biology, a medical degree, and a masters in public health, to offer opinions on, inter alia, how butter and other flavors containing diacetyl were proved to be the cause of lung disease and how the injuries at the plant were caused by workers' exposures to these hazardous products. In addition to numerous other articles, Dr. Egilman co-wrote an article proposing a safe exposure level for diacetyl. According to the article, the "overall weight of evidence indicates that diacetyl's toxicity has a cumulative effect and can cause lung disease at very low exposure levels comparable to other highly potent lung toxins." Accordingly, the article proposes that a safe exposure level for diacetyl is less than one part per billion for an eight-hour work day.

Egilman's expert report in this case points out that numerous scientific studies have shown an increased risk of bronchiolitis obliterans after exposure to diacetyl and butter flavoring.⁶ In his deposition, Egilman testified that either peak (short-term) or chronic exposure to diacetyl may be sufficient to cause disease, and that in his

⁶ The opinions set forth in Egilman's report that specifically mention Mother Murphy and Illes relate to the companies' failure to research, test, and properly warn of the hazards of their products, not how exposure to their products caused injury or disease.

opinion, Wadley's lung disease was probably caused by both his exposure to diacetyl and cigarette smoking.

Mother Murphy joined a co-defendant's motion to exclude the specific causation testimony of Egilman, arguing that Egilman had rendered no opinions linking James Wadley to Mother Murphy's products. Illes also filed a motion to preclude Egilman from offering any testimony regarding specific medical causation based on an alleged failure to disclose any such opinions. The trial court denied Illes' motion to exclude based on a failure to disclose Egilman's specific causation opinions, and, after applying Georgia's expert witness standard, also denied Illes' motion on the merits. The trial court, however, granted Mother Murphy's motion to exclude based on its conclusion that any specific causation opinions related to Mother Murphy were too speculative. Based on its exclusion of Egilman's testimony, the trial court granted summary judgment to Mother Murphy.⁷

In its motion for summary judgment, Illes argued that the Wadleys had failed to show that James Wadley's injuries were caused by exposure to products manufactured by Illes. The trial court granted Illes' motion based on its finding that

⁷ Mother Murphy filed motions for summary judgment on causation and on the Wadleys' failure to warn claims, and the trial court granted both motions.

the “reliance on exposure level data that was collected at least three years after Mr. Wadley last worked at the plant is too speculative to create a genuine issue of material fact on specific causation.”

1. The Wadleys contend that the trial court erred in granting summary judgment to Mother Murphy based on the exclusion of Egilman’s specific causation testimony.

In a toxic tort case, the plaintiff must 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. See *Scapa Dryer Fabrics v. Knight*, 299 Ga. 286, 290-291 (788 SE2d 421) (2016); *Butler v. Union Carbide Corp.*, 310 Ga. App. 21, 25 (1) (712 SE2d 537) (2011). While proving both types of causation involves a question of the concentration levels of the toxin to which the plaintiff was exposed, it does not necessarily follow that a plaintiff must show specific air measurement readings to establish causation. See *Fulmore v. CSX Transp.*, 252 Ga. App. 884, 891-892 (1) (557 SE2d 64) (2001), overruled on other grounds, *Norfolk & Western R. v. Ayers*, 538 U.S. 135, 151, III (B), n.11 (123 SCt 1210, 155 LEd2d 261) (2003). “Rather, in toxic tort cases, proof of causation generally requires reliable expert testimony which is based, at the least, on the determination that there was a reasonable probability that

the negligence caused the injury. The testimony must show at least a probable cause, as distinguished from a mere possible cause.” (Emphasis omitted.) *Fouch v. Bicknell Supply Co.*, 326 Ga. App. 863, 869 (1) (756 SE2d 682) (2014), quoting *Rodrigues v. Georgia-Pacific Corp.*, 290 Ga. App. 442, 444 (661 SE2d 141) (2008); see also *Butler*, 310 Ga. App. at 30 (2) (“Proof of causation in such cases generally requires reliable expert testimony.”) (citation and punctuation omitted).

In its consideration of the motions to exclude Egilman’s specific causation testimony, the trial court analyzed the requirements of OCGA § 24-7-702 (b), which sets forth the usual standard for the admissibility of expert opinion testimony in civil cases:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify thereto in the form of an opinion or otherwise, if: (1) The testimony is based upon sufficient facts or data; (2) The testimony is the product of reliable principles and methods; and (3) The witness has applied the principles and methods reliably to the facts of the case which have been or will be admitted into evidence before the trier of fact.

Whether expert testimony should be admitted under OCGA § 24-7-702 (b) is a question committed to the sound discretion of the trial court. *Scapa*, 299 Ga. at 289; *Toyo Tire v. Davis*, 299 Ga. 155, 160 (2) (787 SE2d 171) (2016). In exercising that discretion, “the trial court acts as a gatekeeper, assessing both the witness’ qualifications to testify in a particular area of expertise and the relevancy and reliability of the proffered testimony.” (Citation and punctuation omitted.) *Toyo Tire*, 299 Ga. at 160-161 (2).

The trial court ruled that Egilman’s testimony was inadmissible as to Mother Murphy because the industrial hygiene studies were conducted years after Mother Murphy stopped selling its product to the plant and that Egilman’s specific causation opinions were therefore too speculative. Although the record on appeal is not clear on the precise basis for Egilman’s specific causation opinions, the trial court, with the benefit of the entire record, concluded that Egilman relied on “the differential diagnosis,⁸ his published research that estimates a safe exposure level of diacetyl, the

⁸ “A differential diagnosis is a method by which a physician determines what 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.” (Citation and punctuation omitted.) *Bd. of Regents of Univ. System of Georgia v. Casey*, 300 Ga. App. 850, 852-853 (2) (686 SE2d 807) (2009).

exposure data gathered from Dr. Rigler’s studies as well as diacetyl exposure data from [the plant]’s industrial hygiene studies” to support his specific causation opinions.⁹ The plant’s industrial hygiene studies show, inter alia, diacetyl levels in specified areas of the plant, where there is evidence that James Wadley worked, during certain time periods in 2004, 2006, and 2008. We agree that the diacetyl exposure data from those studies is not relevant to the Wadleys’ claims against Mother Murphy because only the 2008 study measured diacetyl emissions in the refrigerated dough area, where the relevant Mother Murphy product was made, and Mother Murphy last sold its product to the plant in 2001 or 2002. But that does not mandate the exclusion of Egilman’s specific causation testimony.

The industrial hygiene studies did not serve as the only basis for Egilman’s opinions. In fact, the trial court noted no issue with Egilman’s reliance on the differential diagnosis, Rigler’s opinion that the emission of diacetyl from a small amount of Mother Murphy’s product would produce a level of at least 500 to 1000 parts per billion of diacetyl in the air at room temperature in a non-ventilated area, and Egilman’s published article suggesting that a safe exposure level for diacetyl is

⁹ Egilman’s expert report states that “a list of materials that I have read, reviewed and considered in addition to citations in this report” is attached, but the attachment is not included in the record on appeal.

less than one part per billion for an eight-hour work day. Even if Egilman’s specific causation opinions as to Mother Murphy remain speculative with these additional bases, the appropriate standard for assessing the admissibility of an expert’s opinion “is not whether it is speculative or conjectural to some degree, but whether it is wholly so.” *Layfield v. Dept. of Transp.*, 280 Ga. 848, 850 (1) (632 SE2d 135) (2006); *Cartledge v. Montano*, 325 Ga. App. 322, 327 (1) (750 SE2d 772) (2013). The record shows that Egilman’s opinions were not wholly speculative, and even if they were based on 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.) *Layfield*, 280 Ga. at 851 (1); see also *White Horse Partners LLLP v. Monroe County Bd. of Tax Assessors*, 348 Ga. App. 603, 607 (1) (824 SE2d 57) (2019) (to the extent an expert’s testimony is based partially on speculation, such a fact goes to its weight rather than its admissibility). Accordingly, we conclude that the trial court abused its discretion in ruling that Egilman’s testimony was inadmissible as too speculative because of the timing of the industrial hygiene studies. This ruling formed the sole basis for the trial court’s grant of Mother Murphy’s motions for summary judgment and we therefore remand the case for the trial court to reconsider those motions in light of our decision, with the

benefit of the entire record, to determine whether they should be granted on another basis or denied.

2. The Wadleys contend that the trial court erred in granting summary judgment to Illes.

In its order granting Illes' motion for summary judgment, the trial court ruled that "although Mr. Wadley provided sufficient evidence to create a genuine issue of material fact on his exposure to Illes' products, the Court finds that Mr. Wadley's reliance on exposure level data that was collected at least three years after Mr. Wadley last worked at the plant is too speculative to create a genuine issue of material fact on specific causation." Simultaneously, the trial court denied Illes' and Mother Murphy's motion to exclude Rigler's expert testimony and Illes' motion to exclude Egilman's specific causation testimony. The trial court also denied summary judgment to Illes on the basis of lack of exposure with respect to similar claims asserted by two of Wadley's co-workers.

We find these rulings to be inconsistent. If the Wadleys have created a genuine issue of material fact as to James Wadley's exposure to Illes' products and the expert opinions of Egilman, who the trial court determined offered specific causation

opinions related to Wadley, and Rigler are not excluded, we fail to see how Illes is entitled to summary judgment on the issue of specific causation based solely on the date of the industrial hygiene studies. See, e.g., *Fouch*, 326 Ga. App. at 868 (1) (no specific requirement that plaintiff in toxic tort case show specific air measurement readings to establish causation). It is possible that the trial court intended to conclude that, without the industrial hygiene studies, the Wadleys failed to offer sufficient proof of exposure to Illes' products or that Egilman's specific causation opinions were too speculative without those studies and that summary judgment was therefore appropriate. But either of those conclusions would be inconsistent with at least one of the trial court's other rulings. Rather than speculate as to the basis for the trial court's decision, on remand, the trial court is instructed to reconsider Illes' motion for summary judgment in light of this opinion, with the benefit of the entire record, and issue an order making clear its ruling. See generally *CRS Serrine v. Dravo Corp.*, 213 Ga. App. 710, 721 (4) (445 SE2d 782) (1994).

Judgment reversed and case remanded. Dillard, P. J., and Brown, J., concur.