UNITED STATES COURT OF APPEALS
FOR THE SECOND CIRCUIT

August Term 2020

Argued: June 22, 2021 Decided: October 6, 2021

Docket No. 20-3170

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JAMES H. SARKEES,

PLAINTIFF-APPELLANT,

DEBORAH J. SARKEES,

PLAINTIFF,

V.

E. I. DUPONT DE NEMOURS AND COMPANY, INDIVIDUALLY, AND AS SUCCESSOR IN INTEREST TO THE FIRST CHEMICAL CORPORATION, FIRST CHEMICAL CORPORATION,

DEFENDANTS - APPELLEES.

- -

Before: NEWMAN, CABRANES, PARKER, *Circuit Judges*.

Appeal from a judgment of the U.S. District Court for the Western District of New York (John L. Sinatra, Jr., District Judge), dismissing, on motion for summary judgment, Plaintiff-Appellant's complaint alleging that his bladder cancer was caused by a product, manufactured by the Defendants-Appellees, that contained

ortho-toluidine. The District Court excluded the evidence offered by Plaintiff-Appellant's expert.

Judgment reversed, exclusion ruling vacated, and case remanded for trial.

Steven H. Wodka, Little Silver, NJ (John N. Lipsitz, Lipsitz & Ponterio, LLC, Buffalo, NY, on the brief), for Plaintiff-Appellant James H. Sarkees.

Joshua S. Glasgow, Phillips Lytle LLP, Buffalo, NY (Lisa L. Smith, Kevin M. Hogan, Phillips Lytle LLP, Buffalo, NY, Justin D. Kloss, David W. Kloss, Kloss Stenger & Gormley LLP, Buffalo, NY, on the brief), for Defendants-Appellees E. I. DuPont de Nemours and Company and First Chemical Corporation.

JON O. NEWMAN, *Circuit Judge*:

This appeal concerns the exclusion of an expert witness's report and deposition testimony, specifically the expert's opinion that the chemical ortho-toluidine ("OT") was the specific cause of a worker's bladder cancer.

Plaintiff-Appellant James H. Sarkees ("Sarkees") appeals from the August 24, 2020, judgment of the U.S. District Court for the Western District of New York (John L. Sinatra, Jr., District Judge). The judgment dismissed, on motion for summary judgment, his complaint against Defendants-Appellees E.I. DuPont de Nemours

and Company ("DuPont") and First Chemical Corporation ("First Chemical") (together "Defendants"). *Sarkees v. E.I. DuPont de Nemours & Co.*,[1] No. 17-CV-651 (JLS), 2020 WL 5640059, at *1 (W.D.N.Y. 2020) ("*Sarkees II*").

We conclude that the report and deposition testimony of the Plaintiff's expert witness, Dr. L. Christine Oliver, was improperly excluded because the District Court relied on a state court evidence ruling instead of the applicable federal evidence rule. We further conclude that her evidence is admissible under applicable federal standards and warrants denial of the Defendants' motion for summary judgment on Sarkees' claims. We therefore reverse the judgment of the District Court, vacate the ruling excluding the evidence from Sarkees' expert, and remand his claims for trial.

Background

Facts. The facts are taken primarily from Sarkees' deposition and the undisputed (background) portions of Dr. Oliver's report. In 1974, when Sarkees was 19, he worked for nonparty Goodyear Tire & Rubber Company ("Goodyear") in Niagara Falls, New York, for seven months, first as a production operator and then as a lab technician. Throughout his brief employment with Goodyear, Sarkees

[1] The capitalization and spacing of the company's name varies (*e.g.*, DUPONT, DuPont, Dupont, Du Pont, du Pont). We will render the name as it appears in Westlaw.

believed he was exposed to OT. As he explained, he took chemical samples and unloaded railroad tank cars, the majority of which contained OT; he drove a forklift to load Nailax[2] (a substance made with OT) onto a trailer; and he manually cleaned Nailax reactors and packaged Nailax.

While conducting many of these tasks, Sarkees recognized the smell of OT and experienced chemicals splashing on his skin while, for example, sampling and unloading railroad tank cars; he stated that "the fumes of the [OT] would come out of the hatch of the tank car and would sometimes take my breath away and choke me." A-116, A-413. Due to his small size, he was often assigned to clean the inside of Nailax reactors, spending about 40 hours cleaning them while wearing "the same contaminated coveralls for the entire work shift."A-115, A-412. When cleaning out Nailax residue from the bottom of reactors, "he splashed some on his clothing and occasionally on his skin." A-115. Sarkees approximated that he cleaned the sparkler filters "more than 80 times" at 1.5 hours each, and was forced to inhale a "strong chemical smell" and fumes without a respirator, noting that "[i]t was hot, smelly, and the fumes would choke you." A-116, A-412.

There is no dispute that First Chemical and DuPont both manufactured

[2] Nailax, also known as Wingstay, is an antioxidant that reinforces the rubber used to manufacture tires.

Nailax.

The record includes a 2014 report of the U.S. Department of Health and Human Services, which states, "Epidemiological studies have demonstrated a causal relationship between exposure to *o*-toluidine and urinary-bladder cancer in humans." A-319.

Beginning in 1998, Sarkees regularly participated in an annual bladder cancer screening program offered by Goodyear to former employees. In 2016, at the age of 61 (42 years after he had worked at Goodyear), he was diagnosed with bladder cancer.

Procedural history. Sarkees and his wife filed their complaint in the District Court in July 2017, asserting claims for negligence, strict products liability on a failure-to-warn theory, and loss of consortium, and sought compensatory and punitive damages. The Plaintiffs alleged that Sarkees' bladder cancer was attributable to the Defendants' manufacture and distribution of OT.

Following discovery, Magistrate Judge Hugh B. Scott issued a Report and Recommendation ("R&R"), recommending that the District Court deny the Defendants' motions to exclude the expert testimony of the Plaintiff's general and specific causation experts and deny the Defendants' motion for summary judgment

on every claim except the claim for loss of consortium, alleged by Sarkees' wife. *See Sarkees v. E.I. DuPont de Nemours & Co.*, No. 17-CV-651, 2020 WL 906331 (W.D.N.Y. Feb. 25, 2020) ("*Sarkees I*"). With respect to the claim for loss of consortium, the Magistrate Judge recommended dismissing the claim because her husband's exposure to OT had occurred 12 years before their marriage. *Id*. at *20.

In August 2020, District Judge Sinatra declined to adopt most of the R&R, except for dismissal of the claim for loss of consortium. *See Sarkees II*, 2020 WL 5640059, at *3. Dismissal of the claim for loss of consortium is not being appealed.

The District Judge precluded Dr. Oliver's report and testimony on the issue of specific causation, *id*. at *7–8, and ruled that, in the absence of admissible evidence on specific causation, the Defendants were entitled to summary judgment, *id*. at *8. He denied as moot the Defendants' motion to exclude the testimony of the Plaintiffs' expert witness on the issue of general causation, *id*., and did not rule on the admissibility of Dr. Oliver's conclusion on general causation. We consider the reasoning of the Magistrate Judge and the District Judge below.

Discussion

We review a district judge's exclusion of evidence from an expert witness for abuse of discretion, *see General Electric Co. v. Joiner*, 522 U.S. 136, 143 (1997); *Zaremba*

v. General Motors Corp., 360 F.3d 355, 357 (2d Cir. 2004), bearing in mind that such abuse occurs when a judge's discretionary ruling is based on an error of law, *see Cooter & Gell v. Hartmarx Corp.*, 496 U.S. 384, 405 (1990); *United States v. Walker*, 974 F.3d 193, 203 (2d Cir. 2020).

In a diversity of citizenship case, state law, here New York's, applies to substantive issues, and federal law applies to procedural issues. *See Erie Railroad Co. v. Tompkins*, 304 U.S. 64 (1938). Although "[c]lassification of a law as 'substantive' or 'procedural' for *Erie* purposes is sometimes a challenging endeavor, " *Gasperini v. Center for Humanities, Inc.*, 518 U.S. 415, 427 (1996), it has been clear, at least since *Hanna v. Plumer*, 380 U.S. 460 (1965), that "[w]hen a situation is covered by one of the Federal Rules, . . . the court has been instructed to apply the Federal Rule" unless the rule violates the Rules Enabling Act or constitutional restrictions, *id*. at 471. This Court has been explicit on the point: "The admissibility of expert . . . testimony is governed by the Federal Rules of Evidence," *Campbell ex rel. Campbell v. Metropolitan Property & Casualty Insurance Co.*, 239 F.3d 179, 184 (2d Cir. 2001), specifically, Rule 702, *see id*. All circuits that have considered the question agree. *See Primiano v. Cook*, 598 F.3d 558, 563 (9th Cir. 2010), *as amended*, (Apr. 27, 2010); *Gust v. Jones*, 162 F.3d 587, 594 (10th Cir. 1998); *Brooks v. American Broadcasting Cos.* 999 F.2d 167, 173 (6th

Cir. 1993); *Stutzman v. CRST, Inc.*, 997 F.2d 291, 294–95 (7th Cir. 1993); *Fox v. Dannenberg*, 906 F.2d 1253, 1255 (8th Cir. 1990); *Ealy v. Richardson-Merrell, Inc.*, 897 F.2d 1159, 1163 (D.C. Cir. 1990); *Forrestal v. Magendantz*, 848 F.2d 303, 305 (1st Cir. 1988); *Scott v. Sears, Roebuck & Co.*, 789 F.2d 1052, 1054–55 (4th Cir. 1986); *Dawsey v. Olin Corp.*, 782 F.2d 1254, 1262 (5th Cir. 1986). A leading treatise adds an important point: "Because the Evidence Rules were enacted directly by Congress, their validity vis-à-vis state law . . . stands on ground even firmer than that of the Federal Rules of Civil Procedure."[3]

Several circuits have followed *Hanna* by applying Rule 702 to admit expert testimony even when a state rule of evidence may have excluded the evidence if offered in a state court. *See*, *e.g.*, *Stutzman*, 997 F.2d at 294–96; *Scott*, 789 F.2d at 1054–56; *Dawsey*, 782 F.2d at 1261–62.[4]

Several circuits have recognized, however, that some state evidence rules

[3] 19 CHARLES A. WRIGHT & ARTHUR R. MILLER *ET AL.*, FEDERAL PRACTICE AND PROCEDURE, § 4512 (3d ed. 2021).

[4] This is not to say that state law is necessarily irrelevant to all evidentiary issues in diversity suits. Several circuits have invoked both *Daubert* and state evidence law by applying their own evaluations of an expert witness's *qualifications* under *Daubert* while applying a state's evidence rule when considering the *competency* of the witness, as required by Rule 601, which provides, "[I]n a civil case, state law governs the witness's competency regarding a claim or defense for which state law supplies the rule of decision." *See Coleman v. United States*, 912 F.3d 824, 833 (5th Cir. 2019); *Bock v. University of Tennessee Medical Group*, 471 F. App'x 459, 461-62 (6th Cir. 2012) (citing *Legg v. Chopra*, 286 F.3d 286, 291 (6th Cir. 2002)); *McDowell v. Brown*, 392 F.3d 1283, 1295 (11th Cir. 2004).

might be so closely related to state substantive provisions that the state evidence rule should be applied in federal court diversity cases, even if evidence is excluded that would otherwise be admitted. *See McDowell v. Brown*, 392 F.3d 1283, 1295 (11th Cir. 2004); *Wray v. Gregory*, 61 F.3d 1414, 1417-19 (9th Cir. 1995); *Stonehocker v. General Motors Corp.*, 587 F.2d 151, 155-56 (4th Cir. 1978); *Conway v. Chemical Leaman Tank Lines, Inc.*, 540 F.2d 837, 838 (5th Cir. 1976).

An example of a state evidence rule that federal courts follow to avoid undermining a state substantive rule is exclusion of evidence of a payment received by an accident victim from a collateral source in states that substantively prohibit a reduction of damages because of such a payment. *Perry v. Allegheny Airlines, Inc.*, 489 F.2d 1349, 1352 (2d Cir. 1974). Obviously, where a state has a substantive rule prohibiting a defendant from reducing a plaintiff's damage award by the amount of money the plaintiff has obtained or will obtain from a collateral source, allowing a defendant to present evidence of that amount would undermine the state's substantive rule.

This brings us finally to the issue in the pending case: whether the District Court erred in excluding the report and testimony of Dr. Oliver. The District Court made the basis for its ruling explicit. "Dr. Oliver's opinions are insufficient *under*

state tort law and must be excluded." *Sarkees II*, 2020 WL 5640059, at *8 (emphasis added). And the Court identified the source of the state law it relied on: "Dr. Oliver's proffered opinion is insufficient under *Parker [v. Mobil Oil Corp.*, 7 N.Y. 3d 434 (2006)]." *Id*. at *7. In *Parker*, the New York Court of Appeals affirmed the exclusion of expert testimony offered to prove that a worker's exposure to gasoline containing benzene was the specific cause of his acute myelogenous leukemia ("AML").[5] The District Court cited language in the state court decision in *Parker* several times, and its reliance on *Parker* formed the basis of the decision to exclude Dr. Oliver's proposed testimony. *See Sarkees II*, 2020 WL 5640059, at *4-8. However, as we have explained above, whether an expert's opinion is excludable is to be decided under Rule 702, with the gloss of *Daubert*, and not "under state tort law."[6]

In the absence of a proper exclusion ruling by the District Court, based solely

[5] The holding in *Parker* was not surprising. As the state court noted, "Plaintiff's experts were unable to identify a single epidemiologic study finding an increased risk of AML as a result of exposure to gasoline." 7 N.Y. 3d at 450. It was the District Court's reliance on the state court's analysis of criteria relevant to admitting expert testimony that made reliance on *Parker* inappropriate.

[6] Earlier in its opinion, the District Court "conclude[d] that Dr. Oliver's testimony is *inadequate* under state tort law to prove specific causation." *Sarkees II*, 2020 WL 5040059, at *3 (emphasis added). It is unclear whether "inadequate" meant inadmissible as a matter of evidence law or substantively insufficient to meet a state law standard for specific causation on the theory that, without an admissible expert opinion on specific causation, the state law substantive standard could not be met. But the District Court's ruling to *exclude* the expert testimony, as well as the Court's explicit reliance on a state court exclusion decision, make clear that Court was making an evidence ruling.

on Rule 702 and *Daubert*, we undertake the proper analysis ourselves, rather than remand for reconsideration of a case that is already more than four years old and brought by a victim of a life-threatening disease. The Appellees principally contend that Dr. Oliver "never provided a reliable basis to conclude that [Sarkees] 'was exposed to sufficient levels of the toxin to cause the illness.'" Br. for Appellees at 30 (quoting *Parker*, 7 N.Y.3d at 448). This is a challenge to the use of her proposed evidence to prove specific causation.[7]

To assess this claim, we set forth the relevant details of Dr. Oliver's report. As the foundation for her analysis, Dr. Oliver noted that "[f]requency, intensity, and duration of exposure are important determinants of risk for disease in occupational exposure situations." A-126. Absent direct data of the "frequency and intensity of [Plaintiff's] [OT] exposure," *id*., Dr. Oliver estimated it by comparing Sarkees' description of his job responsibilities and experiences with several epidemiological studies and reports concerning Department 245 at Goodyear, where he worked, that showed "significant increase in risk for bladder cancer in the exposed." A-128–29. She noted that "[i]ncrease in risk for bladder cancer in the population of [OT]-

[7] The use of the evidence from Appellants' expert witness on the issue of general causation is not seriously contested, and, in any event, such evidence easily warrants admission under Rule 702 and *Daubert*.

exposed workers at Goodyear has ranged from three- to sixfold." A-134.

Based on these sources, Dr. Oliver reported that Sarkees' description of his exposure to OT while cleaning the Nailax reactors, cleaning the sparkler filters, and unloading railroad tank cars "indicates moderate to heavy exposure on an at-least regular if not daily basis," A-126, while "work[ing] without the benefit of proper respiratory or dermal protection," A-120, and often wearing contaminated clothing for several days in a row. Though the duration of Sarkees' seven-month exposure was fairly short, Dr. Oliver concluded that "the *intensity* and *frequency* were high," A-128 (emphases in original), and his exposure history and latency were "consistent with that observed in high-risk groups in [OT epidemiological] studies" of Goodyear workers employed in Department 245. A-129.

Dr. Oliver initially relied on a walkthrough inspection of Department 245 at the Niagara Falls plant that she personally conducted in March 1979. Based on that inspection and biologic monitoring data, she concluded that workers in Department 245 exposed to OT and other aromatic amines such as aniline had elevated levels in their urine and blood compared to unexposed workers. She also identified the "Nailax reactor and filter" as a potentially hazardous area.

Dr. Oliver further relied on two reports published by the National Institute

for Occupational Safety and Health ("NIOSH"). The first report, published in 1989 ("NIOSH 1989 Report"), found an increased occurrence of bladder cancer among individuals employed at the Niagara Falls plant between 1973 and 1988 and assessed workers' exposure using "visual observation of work processes and area air sampling" for several chemicals, including OT. She stated that the "number of bladder cancer cases at the plant from 1973 through 1988 was 14, compared to 3.54 expected based on New York State incidence rates among 1,749 individuals ever employed at the plant." A-109. Individuals classified as definitely exposed to OT and aniline based on the location of their work at the plant, such as Sarkees, were at especially increased risk of bladder cancer.

The second report, based on research conducted in 1990 and published in 1992 ("NIOSH 1992 Report"), included an analysis of dermal absorption in the highest-risk areas of the plant and biologic monitoring of OT and other chemicals in exposed versus unexposed workers, tracking levels pre- and post-work shift and by job title and task. NIOSH found that exposed workers were significantly exposed to and absorbed OT at significantly higher rates relative to unexposed workers. NIOSH also found that the most intense airborne exposures to OT were associated with cleaning the sparkler filters. Dr. Oliver noted that Sarkees' descriptions of his

exposures while cleaning the Nailax reactors and sparkler filters and unloading tank cars of OT were consistent with NIOSH's findings for exposed workers.

Dr. Oliver also relied on a study by Hanley *et al.* (2012) that created an exposure ranking analysis supplemented by Carreon *et al.* (2014) (hereinafter, "Hanley-Carreon exposure ranking"). Hanley (2012) used the exposure data from the NIOSH 1992 Report, follow-up exposure data, and department and job title data provided by Goodyear to create four more granular definitions of exposure status, including "definitely exposed moderate-high and regular" and "probably not exposed," A-183-84. Hanley assigned relative exposure levels of 0 to 10 based on the department, job responsibilities, and years of employment. A-109–10. Workers like Sarkees, assigned to rubber chemicals departments between 1970 and 1979, were classified as "definitely exposed at a moderate or high level on a regular basis" and assigned a rank of 10. A-127. For that reason, Dr. Oliver characterized Sarkees' exposure rank as 10 because his job responsibilities included "production of Nailax in 1974 where he was exposed at a moderate to high level on a regular basis" and he did not wear adequate personal protective equipment, which was not implemented as Goodyear policy until 1980. A-127. Dr. Oliver noted that the use of OT and production of chemical products increased in 1970 but that "further

engineering and other heath/safety improvements were implemented" between 1978 and 1998. A-127.

Though noting that Sarkees was 61 years old at the time of his diagnosis, Dr. Oliver cited regression models created by Carreon (2014) showing "significant associations between bladder cancer risk and duration of exposure of one year at rank 10 [exposure]" for workers younger than 60 years old. A-128. She characterized Sarkees' exposure as qualitatively "excessive" based on the "detail [he provided] about what [his] exposures were" bearing on the "frequency" of his exposure." A-229–31.

Dr. Oliver noted that "dose-response modeling" was not available for OT and bladder cancer risk, but reported that "short-term exposures have been associated with increased risk," including studies by Sorahan (2008) (at a plant in the UK) and Carreon (2014) (at Goodyear) finding the association for workers exposed to OT for shorter than five years.

Dr. Oliver also "applied the methodology of differential etiology[8] and . . .

[8] 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." *Westberry v. Gislaved Gummi AB*, 178 F.3d 257, 262 (4th Cir. 1999); *McCullock v. H.B. Fuller Co.*, 61 F.3d 1038, 1044 (2d Cir. 1995).

causation criteria set forth by Sir Austin Bradford Hill"[9] to establish a causal relationship pertinent to Sarkees' case. A-129; A-286–87. Dr. Oliver's differential etiology ruled out causes based on risk factors occasioned by Sarkees' personal and occupational characteristics and prior work history, including his age, race, and gender; cigarette smoking; alcohol use; obesity; benign prostatic hypertrophy and polyoma virus infection status; personal and family history of chronic bladder infections, analgesic abuse, and bladder cancer; his work history post-Goodyear; and exposure to other human bladder carcinogens. Dr. Oliver also pointed out that Sarkees was diagnosed with bladder cancer over a decade earlier than the median age of diagnosis in the United States.

For all these reasons, Dr. Oliver concluded that Sarkees' exposure to OT "*was a substantial contributing factor in his development of bladder cancer*." A-128 (italics in original).

Whether Dr. Oliver's evidence should have been excluded is to be determined by the standards of Rule 702 and *Daubert*. We need not rehearse either these

[9] The criteria developed by Sir Austin Bradford Hill "are metrics that epidemiologists use to distinguish a causal connection from a mere association." *In re Zoloft (Sertraline Hydrochloride) Products Liability Litigation*, 858 F.3d 787, 795 (3d Cir. 2017). The nine criteria are: (1) temporal relationship; (2) strength of the association; (3) dose-response relationship; (4) replication of the findings; (5) biological plausibility; (6) consideration of alternative explanations; (7) cessation of exposure; (8) specificity of the association; and (9) consistency with other knowledge. *See* FEDERAL JUDICIAL CENTER, REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 599–600 (3d ed. 2011).

standards or *Daubert* as our Court has fully discussed them. *See, e.g.*, *Clerveaux v. East Ramapo Central School District*, 984 F.3d 213, 233–36 (2d Cir. 2021); *United States v. Requena*, 980 F.3d 30, 46-48 (2d Cir. 2020); *Restivo v. Hessemann*, 846 F.3d 547, 575–77 (2d Cir. 2017); *Amorgianos v. National Railroad Passenger Corp.*, 303 F.3d 256, 265–68 (2d Cir. 2002); *McCullock v. H.B. Fuller*, 61 F.3d 1038, 1042–44 (2d Cir. 1995).

Although we are reviewing the judgment of the District Court, rather than the R&R, we note several aspects of the Magistrate Judge's opinion that reenforced his recommendations and that we find persuasive. First, he noted that Dr. Oliver "spent decades as a board-certified physician in occupational and environmental medicine, and she has the unique perspective of having inspected the Goodyear plant herself just a few years after [Sarkees] worked there." *Sarkees I*, 2020 WL 906331, at *16. Next, he observed that "Dr. Oliver candidly acknowledged two variables that create both positive and negative inference for the amount of exposure that [Sarkees] received from OT." *Id*.

> "On the negative side, no one at Goodyear thought to measure air concentrations of OT in the areas where [Sarkees] worked in 1974, and no one thought to log instances of contaminated clothing and direct skin contact. The exact numerical amount of exposure that [he] received, therefore, will never be known. On the positive side, however, direct measurements began occurring by the late 1970s and the 1980s, and by that time, various safeguards pertaining to protection and ventilation were in place that did not benefit [Sarkees] in 1974. Dr.

> Oliver thus inferred reasonably that the exposure levels measured in subsequent years are underestimates of the intensity of [his] exposure."

Id.

Turning to "duration of exposure," the Magistrate Judge noted that "Dr. Oliver . . . worked consistently with the Goodyear studies and worked with the assumption that OT retained its identity and properties in the Nailax blend and thus would have had its own partial pressure in the air and its own direct skin and clothing contact with [Sarkees]." *Id*. "The Goodyear studies," he continued, "are well-respected studies and reliably show indications of risk above any baseline population. Workers classified as 'Definitely exposed moderate/high and regularly' . . . – such as [Sarkees] – had a median of only 0.92 years in the highest category of exposure and yet had a strong correlation to overall exposure." *Id*. at *17.

Finally, the Magistrate Judge considered Dr. Oliver's differential etiology analysis. "Dr. Oliver," he noted, "identified numerous factors that can elevate risk of bladder cancer . . . . One by one, Dr. Oliver demonstrated that these other factors either were not present at all in [Sarkees'] life or would have had only a marginal impact on [his] overall risk of developing bladder cancer. Dr. Oliver's efforts will suffice to establish differential etiology[.]" *Id*.

Reckoning explicitly with the cautions of *Daubert*, *see id*. at *11, and applying principles of "scientific reliability to Dr. Oliver's opinion about specific causation," *id*. at *16, Magistrate Judge Scott accepted, for purposes of admissibility, Dr. Oliver's conclusion that OT was the specific cause of Sarkees' bladder cancer, *see id.* at *16–18, and recommended that her evidence be presented to a jury, *see id*. at *18.

The Appellees' most insistent criticism of Dr. Oliver's evidence concerning specific causation is that she "entirely failed to provide any form of quantitative risk assessment or a quantifiable range of [Sarkees'] actual exposure" to OT. Br. for Appellees at 30–31. Yet as her report reveals, she carefully considered available data, including the series of NIOSH reports. Moreover, as other courts have recognized, precise quantification is often not available and not required. The Fourth Circuit has stated, "[W]hile precise information concerning the exposure necessary to cause specific harm to humans and exact details pertaining to the plaintiff's exposure are beneficial, such evidence is not always available, or necessary, to demonstrate that a substance is toxic to humans given substantial exposure and need not invariably provide the basis for an expert's opinion on causation." *Westberry v. Gislaved Gummi AB*, 178 F.3d 257, 264 (4th Cir. 1999). *See also Bonner v. ISP Technologies, Inc.*, 259 F.3d 924, 928 (8th Cir. 2001); *Ruiz-Troche v. Pepsi Cola of Puerto Rico Bottling Co.*, 161 F.3d

77, 86 (1st Cir. 1998).

Assessing Dr. Oliver's report and testimony solely under Rule 702 and *Daubert*, we conclude that her evidence is admissible. With that evidence available for trial, the Appellees' motion for summary judgment must be denied. Of course, her evidence will be subject to cross-examination and challenge by opposing evidence, and ultimately the weight and persuasive force of her evidence will be for the jury.

Conclusion

The judgment of the District Court granting summary judgment to the Appellees on the claims of James Sarkees is reversed. The Court's ruling excluding the evidence of Dr. Oliver is vacated. The case is remanded for trial.