

**UNPUBLISHED**

UNITED STATES COURT OF APPEALS  
FOR THE FOURTH CIRCUIT

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**No. 09-1200**

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SHARON PETERS-MARTIN; STEVEN MARTIN; STATE FARM MUTUAL  
AUTOMOBILE INSURANCE COMPANY,

Plaintiffs - Appellants,

v.

NAVISTAR INTERNATIONAL TRANSPORTATION CORPORATION;  
INTERNATIONAL TRUCK AND ENGINE CORPORATION; ROBERT BOSCH  
CORPORATION,

Defendants - Appellees,

and

HONEYWELL INTERNATIONAL, INCORPORATED,

Defendant,

v.

JOSEPH CORY HOLDINGS, LLC; ALFRED RUSSELL PAGE, JR.; RYDER  
TRUCK RENTAL, INCORPORATED,

Third Party Defendants - Appellees.

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Appeal from the United States District Court for the District of  
Maryland, at Greenbelt. Deborah K. Chasanow, District Judge.  
(8:05-cv-02988-DKC)

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Argued: September 22, 2010

Decided: February 9, 2011

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Before MOTZ and SHEDD, Circuit Judges, and Mark S. DAVIS, United  
States District Judge for the Eastern District of Virginia,  
sitting by designation.

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Affirmed by unpublished opinion. Judge Davis wrote the opinion, in which Judge Motz and Judge Shedd joined.

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**ARGUED:** Mark Minoru Kodama, LAW OFFICE OF MARK M. KODAMA, Washington, D.C., for Appellants. Harry S. Johnson, WHITEFORD, TAYLOR & PRESTON, LLP, Baltimore, Maryland; Edward John Longosz, III, ECKERT SEAMANS CHERIN & MELLOTT, LLC, Washington, D.C.; Charles Grant Byrd, Jr., ALSTON & BYRD, Baltimore, Maryland, for Appellees. **ON BRIEF:** Stefanie M. Stewart, WHITEFORD, TAYLOR & PRESTON, LLP, Baltimore, Maryland, for Robert Bosch Corporation; Laura Stover, ECKERT SEAMANS CHERIN & MELLOTT, LLC, Washington, D.C., for Navistar International Transportation Corporation and International Truck and Engine Corporation.

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Unpublished opinions are not binding precedent in this circuit.

DAVIS, District Judge:

Sharon Peters-Martin ("Peters-Martin"), Steven Martin ("Martin"), and State Farm Mutual Automobile Insurance Company ("State Farm" and, collectively with Peters-Martin and Martin, the "Appellants") appeal from several rulings of the district court. First, Appellants appeal from the district court's August 14, 2008 memorandum opinion and order, which granted, inter alia, motions in limine filed by Robert Bosch LLC, formerly known as Robert Bosch Corporation ("Bosch"), and by Alfred Russell Page, Jr., Joseph Cory Holdings, LLC ("Cory Holdings"), and Ryder Truck Rental, Inc. ("Ryder" and, collectively with Page and Cory Holdings, the "Third Party Appellees") to exclude the testimony of Appellants' proposed liability expert, Dr. Allen M. Bissell, as well as motions for summary judgment filed by Bosch and the Third Party Appellees. Second, Appellants appeal the district court's January 23, 2009 memorandum opinion and order, which granted a motion filed by International Truck and Engine Corporation ("International Truck" and, collectively with Bosch, the "Appellees"), formerly known as Navistar International Transportation Corporation ("Navistar"),<sup>1</sup> for summary judgment. For the reasons set forth below, we affirm the judgment of the district court.

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<sup>1</sup> For the sake of clarity, we shall refer to this appellee as International Truck.

I.

A.

This case arises from a multiple-vehicle accident that occurred on September 24, 2002, at the intersection of Riggs Road and the East-West Highway in Prince George's County, Maryland. A Ryder truck (the "truck") being driven by Page, who was an employee of Cory Holdings, allegedly lost power to its brakes as it crested a hill and subsequently struck several vehicles, including the vehicle that Peters-Martin was driving. Peters-Martin and her husband, Steven Martin, filed a case against Page and Ryder Truck, Inc. in the Circuit Court for Prince George's County, Maryland (the "Prince George's County Circuit Court"), Civ. Action Law No. 04-12926, but later voluntarily dismissed that case, with prejudice. On September 19, 2005, Appellants filed the instant case against Navistar, International Truck, Bosch, and Honeywell International, Inc. ("Honeywell") in the Prince George's County Circuit Court, Civ. Action Law No. 05-19605, alleging that the braking system of the truck was defectively designed and manufactured. International Truck removed the case to the United States District Court for the District of Maryland on November 2, 2005. On May 16, 2006, Bosch filed a third-party complaint against the Third Party Appellees. On January 9, 2007, Appellants voluntarily dismissed Honeywell as a defendant. On January 14, 2008, Bosch and the

Third Party Appellees filed motions in limine and for summary judgment. After briefing, the district court granted all of those motions by memorandum opinion and order dated August 14, 2008. Specifically, the district court found that although Dr. Bissell was qualified to testify as an expert, (1) the methods he used in the instant case were unreliable and lacked sufficient factual support, (2) his expert reports failed to show how the claimed defect actually caused the accident, and (3) his proposed alternative design lacked sufficient detail and factual support. Having determined that Appellants lacked the requisite expert testimony to establish their products liability claim and other claims, the district court concluded that summary judgment in favor of Bosch and the Third Party Appellees was appropriate. International Truck thereafter moved for summary judgment on September 12, 2008, which, after briefing, the district court granted on January 23, 2009, thereby concluding the district court proceedings. Appellants timely filed their notice of appeal on February 20, 2009.

B.

Although International Truck was the manufacturer of the truck at issue in this case, which was a 1998 International Truck Model 4700, Bosch manufactured the components of the truck's braking system that are the central focus of this appeal: the Hydro-Max® Booster (the "Booster") and Master

Cylinder (the "Cylinder"). These components provided power assistance to the truck's hydraulic braking system, and are alleged to be the cause of the accident. The Booster is attached to the truck's brake pedal by a pedal rod, which is inserted into an input plug on the Booster. A rubber grommet is installed on the pedal rod to retain the pedal rod within the Booster.

In this case, it is undisputed that the truck's pedal rod was found to be disconnected from the Booster when examined after the accident. The rubber grommet on the truck's pedal rod was also found to be damaged and distorted from its original condition. The truck's odometer had approximately 117,000 miles on it at the time of the accident. J.A. 63 ¶ 8, 88 & 97 ¶ 10. The truck's braking system had previously been serviced, J.A. 65 ¶¶ 19-20 & 97-98 ¶¶ 13-14, and the truck had passed a federal inspection two months (and 1,631 miles) prior to the accident. J.A. 82. Page had previously used the truck without any brake problems, and had inspected, tested, and repeatedly used the truck's brakes the morning of the accident. J.A. 189-90, 207-11. Bosch denies that the products or components at issue in this case were defectively designed or manufactured.

1.

This case is one of six lawsuits filed as a result of this accident, and it is necessary to mention certain details of

those other lawsuits briefly in order to provide context. Page and Ryder were named as defendants in all six cases. Bosch was named as a defendant only in this case and in Witham v. Page, which was originally filed in the Circuit Court for Baltimore City, Maryland on August 17, 2005, but which was subsequently transferred on motion of the defendants to the Prince George's County Circuit Court, Civ. Action Law No. 06-3518. J.A. 128. The instant case, however, is the only case involving this accident in which International Truck has been named as a defendant.

Shortly after the accident, Travelers Insurance Company, Ryder's insurer, retained Engineering and Fire Investigations ("EFI") to examine the truck and its braking system. Dr. Harold Ornstein conducted the inspection on December 12, 2002, and issued a report dated January 10, 2003. J.A. 296-97. Dr. Ornstein opined that "[t]he accident was caused by a defective brake system," and that "[t]he driver did not do anything that could have caused or contributed to the accident." J.A. 301. Dr. Ornstein's review of the United States Department of Transportation National Highway Traffic Safety Administration ("NHTSA") records did not reveal any recalls or technical service bulletins applicable to the model truck involved in this case. Id.

Dr. Ornstein testified on behalf of the defendant in another one of the lawsuits relating to this accident, Dr. Blessings Heaven International Association of Women Clergy v. Travelers Insurance, in the Prince George's County Circuit Court, Civ. Action Law No. 03-07861, on May 8, 2006. J.A. 183. In that case, Dr. Ornstein concluded, to a reasonable degree of engineering certainty, that the accident was caused by a defective braking system and that the driver did not do anything that could have caused or contributed to the accident. J.A. 201. When asked for his opinion about what caused the brake failure, Dr. Ornstein stated that "[i]t was a physical separation of two parts of a component that either were defective by very small amounts that you can't determine, or had not worn the way they were supposed to. It's basically, nothing is perfect in this world." J.A. 200. When asked why the pedal rod came out, Dr. Ornstein replied, "Well, we don't know. No one knows exactly what caused it." J.A. 69. Of course, Bosch and International Truck were not parties to the Dr. Blessings case, and therefore had no opportunity to cross-examine Dr. Ornstein themselves about his opinions regarding the cause of the brake failure.

Bosch was, however, a defendant in Witham v. Page, which also went to trial. The plaintiff in that case initially relied on the testimony of Drs. Ornstein and Bissell to support a claim



against Bosch. Prior to trial, Bosch filed a motion for summary judgment, challenging the admissibility of the expert testimony of Drs. Bissell and Ornstein. The plaintiff never produced Dr. Bissell for deposition, choosing instead to rely on Dr. Ornstein's prior trial testimony in Dr. Blessings. After hearing argument, the Witham trial court found that the testimony of Dr. Ornstein was not sufficient under Maryland law to support even a prima facie case against Bosch that the Hydro-Max® Booster and Master Cylinder were defectively designed or manufactured. J.A. 113-14.

2.

Dr. Bissell provided Appellants with two reports in this case. The first, dated October 16, 2006,<sup>2</sup> was prepared by Dr. Bissell and three of his fellow employees at Trident Engineering Associates, Inc. ("Trident"). In that report, Dr. Bissell relied extensively on Dr. Ornstein's previous investigation and cited a recall issued by International Truck on certain model trucks, including the model truck involved in this case, relating to a particular type of caliper (a disc braking system

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<sup>2</sup> Although the first page of the report is dated October 16, 2006, subsequent pages are dated October 23, 2006. Compare J.A. 87 with J.A. 88-94. Despite this discrepancy, we shall refer to this report as Dr. Bissell's October 16, 2006 report.

component) known as a Zero Operating Pin Slide ("ZOPS") caliper.<sup>3</sup> That recall did not relate to the Hydro-Max® Booster and Master Cylinder or, for that matter, to the truck involved in this case, because the truck apparently did not have ZOPS calipers.<sup>4</sup>

In his October 16, 2006 report, Dr. Bissell opined, without having tested or physically examined the truck's braking system, that ZOPS calipers could produce extreme "heating of the calipers, wheel rotors, brake fluid, and brake lines," and that such heat "will transfer up the brake lines to the master cylinder and thence to the Hydro-Max booster, raising the operating temperature of the equipment" to an "uncertain" temperature. J.A. 89. Dr. Bissell then stated that "it is possible that the high operating temperature of the brake system due to its ZOPS caliper design can compromise the ability of the grommet to hold the pedal rod in place." J.A. 93. His conclusions, purportedly "to a reasonable degree of engineering certainty," were that such heating could have caused the grommet

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<sup>3</sup> According to the report, these safety recalls were issued on February 24, 2003, approximately six weeks after the date of Dr. Ornstein's report, which appears to explain why Dr. Ornstein's search for safety recalls yielded no results. See J.A. 80 & 88.

<sup>4</sup> Although Appellees submitted sworn affidavits from Bosch engineers stating, inter alia, that the truck actually had rail slide calipers instead of ZOPS calipers, we note that the district court was not actually required to determine this fact in ruling on the motions in limine. J.A. 352 n.7 (citing J.A. 65 ¶¶ 19-20); see also J.A. 97-98 ¶¶ 13-14.

on the truck's pedal rod to fail, that the "retaining grommet design is defective in the Hydro-Max Hydraulic Brake Booster because its failure can be sudden and without warning and the grommet condition cannot be determined," and that the truck's Booster "should be disassembled to ascertain the condition of internal parts." J.A. 93-94.

As Appellees emphasize, although Dr. Bissell "obtained an exemplar Hydro-Max booster and brake cylinder in new, unused condition" and "disassembled and measured" it, J.A. 89, he cited no tests, studies, or other scientific support for the foregoing conclusions, and cited no prior instances of such a problem occurring with the grommet. He also failed to provide any factual or scientific data or support for his discussion of heat generation and transfer within the truck's braking system to the grommet.

Dr. Bissell's second report, dated March 7, 2007, was prepared for Appellants' counsel as talking points for a mediation session in the case. J.A. 77. This second report shifted the focus from Dr. Bissell's "extreme heat" theory to "[t]he lack of any procedure to check on the condition of the brake push-rod retention grommet," which "makes it impossible to discover the condition of the brake system." Id. Since "the DOT requires that vehicle brake systems, especially for trucks, use fail-safe design," Dr. Bissell opined that the grommet

failure he described "constitute[d] a serious design defect requiring recall of this braking system and redesign of the brake pedal retention system." Id.

Noting that "[t]he grommet . . . had abraded in its mounting socket to the point that it could no longer retain the brake pedal connection to the rest of the system," Dr. Bissell suggested an alternative all-metal ball-and-socket joint design. However, his March 7, 2007 report provides no further details of such alternative design, such as its feasibility, actual use, or cost.

## II.

### A.

District courts have "broad latitude in ruling on the admissibility of evidence, including expert opinion," and such "evidentiary rulings with respect to relevance and reliability," including those made pursuant to the test set forth in Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993), will not be overturned "absent an abuse of discretion." Bryte ex rel. Bryte v. Am. Household, Inc., 429 F.3d 469, 475 (4th Cir. 2005). "A district court abuses its discretion when it acts arbitrarily or irrationally, fails to consider judicially recognized factors constraining its exercise of discretion, relies on erroneous factual or legal premises, or commits an error of law." United States v. Delfino, 510 F.3d 468, 470 (4th

Cir. 2007). However, even if a district court's evidentiary ruling constitutes an abuse of discretion, such a ruling "is reversible only if it affects a party's substantial rights." Schultz v. Capital Int'l Sec., Inc., 466 F.3d 298, 310 (4th Cir. 2006); accord Fed. R. Evid. 103(a).

Rule 702 of the Federal Rules of Evidence serves as the guidepost for determining the admissibility of expert testimony. United States v. Wilson, 484 F.3d 267, 274-75 (4th Cir. 2007).

The rule provides:

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.

Fed. R. Evid. 702. In considering the admissibility of expert testimony, a district court acts as a gatekeeper and must assess whether an expert's proffered testimony is both sufficiently reliable and relevant. Kumho Tire Co. v. Carmichael, 526 U.S. 137, 141 (1999); accord Daubert, 509 U.S. at 597; United States v. Moreland, 437 F.3d 424, 431 (4th Cir. 2006). The relevance and reliability of expert testimony is examined by consideration of, among other things:

- (1) whether the particular scientific theory "can be (and has been) tested";
- (2) whether the theory "has

been subjected to peer review and publication"; (3) the "known or potential rate of error"; (4) the "existence and maintenance of standards controlling the technique's operation"; and (5) whether the technique has achieved "general acceptance" in the relevant scientific or expert community.

United States v. Crisp, 324 F.3d 261, 266 (4th Cir. 2003) (quoting Daubert, 509 U.S. at 593-94).

Although the reliability of an expert's principles and methods, as well as the application of such methods to the facts of a case, must be examined, the district "court need not determine that the proffered expert testimony is irrefutable or certainly correct" because "[a]s with all other admissible evidence, expert testimony is subject to testing by '[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof.'" Moreland, 437 F.3d at 431 (quoting Daubert, 509 U.S. at 596) (alteration in original); see also Md. Cas. Co. v. Therm-O-Disc, Inc., 137 F.3d 780, 783 (4th Cir. 1998) (noting that "[a]ll Daubert demands is that the trial judge make a 'preliminary assessment' of whether the proffered testimony is both reliable . . . and helpful"). Neither Rule 702 nor relevant case law establishes a mechanistic test for determining the reliability of an expert's proffered testimony; on the contrary, "'the test of reliability is flexible' and 'the law grants a district court the same broad latitude when it decides how to determine reliability as it enjoys in respect to its ultimate reliability determination.'"

Wilson, 484 F.3d at 274 (quoting Kumho Tire Co., 526 U.S. at 141–42). Although the district court is afforded broad latitude in performing such a flexible inquiry, the focus of the inquiry should be on the “‘principles and methodology’ employed by the expert, not on the conclusions reached.” Moreland, 437 F.3d at 431 (quoting Daubert, 509 U.S. at 594–95).

As this Court recognized in Wilson, “[a] district court’s reliability determination does not exist in a vacuum, as there exist meaningful differences in how reliability must be examined with respect to expert testimony that is primarily experiential in nature as opposed to scientific.” Wilson, 484 F.3d at 274. Unlike “[p]urely scientific testimony,” which is “characterized by ‘its falsifiability, or refutability, or testability,’” id. (quoting Daubert, 509 U.S. at 593), and is thus “‘objectively verifiable,’” such “[e]xperiential expert testimony . . . does not ‘rely on anything like a scientific method.’” Id. (quoting Fed. R. Evid. 702 advisory committee’s note). Consequently, although “‘experience alone—or experience in conjunction with other knowledge, skill, training or education—may . . . provide a sufficient foundation for expert testimony,’” id. (quoting Fed. R. Evid. 702 advisory committee’s note), the “district court’s task in examining the reliability of experiential expert testimony is therefore somewhat more opaque.” Id. Nevertheless, “the district court must . . . require an

experiential witness to 'explain how [his] experience leads to the conclusion reached, why [his] experience is a sufficient basis for the opinion, and how [his] experience is reliably applied to the facts.'" Id. (quoting Fed. R. Evid. 702 advisory committee's note) (alterations in original).

B.

"This Court reviews a district court's decision to grant summary judgment de novo, applying the same legal standards as the district court." Pueschel v. Peters, 577 F.3d 558, 563 (4th 2009). Summary judgment is appropriate when the Court, viewing the record as a whole and in the light most favorable to the non-moving party, determines that there exists no genuine issue of material fact and that the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a);<sup>5</sup> Celotex Corp. v. Catrett, 477 U.S. 317, 322-24 (1986); Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 250 (1986).

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<sup>5</sup> Recent amendments to the Federal Rules of Civil Procedure, which became effective on December 1, 2010, moved the relevant language from section (c)(2) of Rule 56 to its present location in section (a). However, the advisory committee's note indicates that, despite these amendments, "[t]he standard for granting summary judgment remains unchanged." Fed. R. Civ. P. 56 advisory committee's note.



## III.

We note as an initial matter that Appellants have conceded, both in their brief and at oral argument, that the "admissibility of Dr. Bissell's testimony is crucial to proving" their products liability claim in this case. Br. of Appellants at 18. In other words, it is undisputed that, without Dr. Bissell's expert testimony, that claim cannot survive Appellees' motions for summary judgment. Consequently, we need not address Appellees' arguments regarding the indispensability of expert testimony under Maryland law for products liability claims such as the one asserted in this case. See, e.g., Mohammad v. Toyota Motor Sales, U.S.A., Inc., 947 A.2d 598, 607–10 (Md. Ct. Spec. App. 2008); Wood v. Toyota Motor Corp., 760 A.2d 315, 319 (Md. Ct. Spec. App. 2000); Jensen v. Am. Motors Corp., 437 A.2d 242 (Md. Ct. Spec. App. 1981). Instead, we turn directly to the substance of Dr. Bissell's expert reports and the district court's reasons for excluding his testimony.

## A.

As discussed above, the principal theory advanced in Dr. Bissell's October 16, 2006 report was that the truck's brake failure and the ensuing accident were caused by the failure of the grommet connecting the truck's pedal rod to the Hydro-Max® Booster. Under Dr. Bissell's theory, the grommet failed prior to the accident, causing the pedal rod to separate from the

Booster, thus effectively disconnecting the truck's brake pedal from the braking system and rendering Page unable to stop the truck as it crested the hill. Dr. Bissell opined that the grommet failed because it had been softened by exposure to extreme heat, which had rendered it susceptible to distortion of its shape. Dr. Bissell further opined that such extreme heat had been generated by the friction from jammed ZOPS brake calipers, which were improperly holding the truck's brake pads against its brake rotors even when the brakes were not activated by the driver, and that such heat had been conducted to the grommet by the truck's brake lines and brake fluid.

Apparently recognizing the scant factual basis for several aspects of Dr. Bissell's "extreme heat" theory,<sup>6</sup> Appellants also advanced the alternative, more rudimentary theory advanced in Dr. Bissell's second expert report dated March 7, 2007.<sup>7</sup> In that

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<sup>6</sup> Although Appellants "do not concede that Dr. Bissell's methodologies fell short of Rule 702," Br. of Appellants at 20, counsel for Appellants acknowledged at oral argument that the district court "definitely ha[d] a better argument to say that the heating problem needed more scientific testing." Counsel instead argued principally that Dr. Bissell's alternative theory should have, by itself, survived summary judgment. This position is consistent with Appellants' claim in their brief that "Dr. Bissell's opinion in this area [i.e., his "extreme heat" theory] is not essential to his finding that the brake system and its components were defectively designed and made." Id. at 20-21.

<sup>7</sup> Appellees contend that we should not even consider this alternative theory because it was not advanced in the district court. "As this court has repeatedly held, issues raised for  
(Continued)

report, as discussed above, Dr. Bissell opined that the grommet's defective nature was manifest from the mere fact of its failure alone. Appellants emphasize on appeal that "this is not based upon merely by [sic] the ipse dixit of Dr. Bissell but by [sic] the U.S. Department of Transportation," which requires that vehicle braking systems be fail-safe. Br. of Appellants at 19. Specifically, since the grommet's physical placement within the braking system is such that it cannot be monitored or checked for wear or damage, Dr. Bissell asserts, citing Dr. Ornstein's testimony in the Dr. Blessings trial, that the grommet itself must be fail-safe. Consequently, Appellants argue that any failure of the grommet would, by definition, constitute a defect, and that Dr. Bissell's proposed testimony to that effect would suffice to survive summary judgment.

B.

In granting the motions in limine, the district court enumerated several deficiencies in Dr. Bissell's expert reports. First, the district court correctly noted that Dr. Bissell's

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the first time on appeal generally will not be considered," except "in very limited circumstances, such as where refusal to consider the newly-raised issue would be plain error or would result in a fundamental miscarriage of justice." Muth v. United States, 1 F.3d 246, 250 (4th Cir. 1993). It is evident, however, from both Appellants' opposition to the motions in limine and the district court's August 14, 2008 Memorandum Opinion that this alternative theory was, in fact, raised before the district court. See, e.g., J.A. 152 ¶¶ 70-71, 159-60, 355.

theories were not based upon firsthand examination or testing of the truck's braking system, or even extensive testing of his exemplar braking system, but were instead largely extrapolated from Dr. Ornstein's previous inspection and report. It is somewhat noteworthy in this connection that Dr. Bissell's own reports appear to underscore the importance of firsthand examination. See J.A. 94 (including as an element of Dr. Bissell's opinion in his October 16, 2006 report that "the Hydro-Max assembly from the subject truck should be disassembled to ascertain the condition of internal parts") & 78 (noting in Dr. Bissell's March 7, 2007 report that "[a]n examination of the original equipment can better establish whether or not the retaining shoulder was abrading the grommet").

Of course, Dr. Bissell's failure to examine the truck's braking system himself does not, in and of itself, render his opinion inherently unreliable or automatically inadmissible. Examination and/or testing of an exemplar of the same product, in combination with a review of photographs of the allegedly defective product and/or testimony regarding the circumstances and nature of the allegedly defective product's failure, may, in some cases, constitute an entirely adequate and reliable methodology for an expert to employ, especially where examination or testing of the allegedly defective product itself is impossible, impracticable, or would implicate issues of

spoliation. See, e.g., Cole v. Keller Indus., Inc., 132 F.3d 1044, 1046-47 (4th Cir. 1998) (discussing the appropriate remedy under Virginia law for spoliation of an allegedly defective ladder by the plaintiff's expert); Alevromagiros v. Hechinger Co., 993 F.2d 417, 419-20 (4th Cir. 1993) (affirming a district court's directed verdict in favor of the defendants in a Virginia products liability case because the plaintiff's expert, inter alia, had "never conducted a physical examination of an identical but undamaged ladder to determine its safe or unsafe design" and had "failed to perform" tests recommended by the American National Standards Institute on such exemplar ladder); Coker v. Louisville Ladder Inc., Civ. Action No. 4:08cv113, 2009 WL 2870030 (E.D. Va. May 26, 2009) (denying the defendant's motion in limine to exclude the testimony of the plaintiff's expert despite the expert's failure to test an allegedly defective ladder because, inter alia, the expert had examined and tested an exemplar ladder of the same model); cf. Pugh v. Louisville Ladder, Inc., 361 F. App'x 448, 450 (4th Cir. 2010) (noting that the district court had granted a motion in limine to preclude the plaintiff's experts from testifying about testing performed on an exemplar ladder because the exemplar was designed differently than the allegedly defective ladder); Stoots v. Werner Co., No. Civ.A. 7:04CV00531, 2005 WL 3547122 (W.D. Va. 2005). Thus, Dr. Bissell's methodology in this case

was not necessarily defective in its conception. It was, however, woefully deficient in its execution.

Counsel for Appellants indicated at oral argument that Dr. Bissell's failure to examine the truck's braking system himself was due not only to Appellees' spoliation concerns, but also to cost concerns on the part of Appellants. Whatever the ultimate reason or reasons for these shortcomings, the fact remains that Dr. Bissell provided no evidence, based on testing or otherwise, to support his contention that the grommet had, in fact, failed prior to the accident, let alone that the grommet's alleged failure was, or even could have been, caused by the distortion observed in the grommet after the accident. Appellants' contention that "the grommet had abraded in its mounting sock [sic] to the point that it could no longer hold itself in place to the Hydro Max Booster" was therefore pure speculation, and the district court was entirely correct to exclude it on that basis. Br. of Appellants at 14.

Noting the deficiency, the district court correctly observed that Dr. Bissell's reports did not provide the results of any testing, cite any scientific research, or even disclose the specific evidence that he relied upon in discussing (1) the potential or demonstrated effect of extreme heat on the grommet, (2) the potential or demonstrated source of such extreme heat within the truck, or (3) the potential or demonstrated ability

of the truck's brake lines and brake fluid actually to conduct heat of a sufficiently high temperature to cause distortion of the grommet. Consequently, Dr. Bissell lacked a factual basis for his conclusions that (1) the distortion observed in the grommet was, in fact, caused by exposure to extreme heat, (2) the calipers on the truck did, in fact, generate heat sufficiently extreme to distort the grommet, and (3) such extreme heat was, in fact, conducted to the grommet by the brake lines and brake fluid. Consequently, the district court was entirely within its discretion to find Dr. Bissell's "extreme heat" theory to have been "mere ipse dixit." J.A. 350.<sup>8</sup>

Although Appellants may well be correct to argue that, in contrast with Dr. Bissell's "extreme heat" theory, his alternative "defective because it failed" theory is not merely ipse dixit, we nevertheless find it to be little more than an ipso facto statement. In other words, it is true that his alternative theory does not rely on any of the unsupported factual assertions underlying his "extreme heat" theory.

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<sup>8</sup> As noted above, although the district court noted Bosch's proffered evidence that the truck did not even have ZOPS calipers, but instead had rail slide calipers, the district court determined that it did not need to resolve that factual issue in order to render its decision on the motions in limine. J.A. 352 n.7 (citing J.A. 65 ¶¶ 19-20); see also J.A. 97-98 ¶¶ 13-14. Of course, the alleged absence of ZOPS calipers, if proven, would largely eviscerate Dr. Bissell's "extreme heat" theory, which was predicated on an NHTSA safety recall relating specifically to overheating in ZOPS calipers. See J.A. 88.

Indeed, his alternative theory does not rely on any facts specific to this case, at all. Instead, it simply posits that whenever brakes fail, they are, by definition, defective. In this sense, Dr. Bissell's alternative theory is far closer to a convenient, self-serving legal conclusion than a tested, factually supported, technical or scientific explanation for a physical phenomenon. Of course, we also note that Appellants cite no authority under Maryland law for the proposition that brakes are, in all cases, automatically considered defective, in a legally significant sense, simply because they fail.<sup>9</sup>

Moreover, as the district court observed, "[e]ven if Dr. Bissell were permitted to testify that the grommet was defective, Plaintiffs lack expert testimony as to causation." J.A. 355. Dr. Bissell's alternative theory does nothing to show that the claimed defect actually caused the brake failure in

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<sup>9</sup> In Phipps v. General Motors Corp., 363 A.2d 955 (Md. 1976), the Court of Appeals of Maryland indicated that certain malfunctions in new vehicles would constitute inherently unreasonable risks that would, even in the absence of expert testimony, suffice to support a reasonable inference of defect. Id. at 959. However, the same court explained in its recent decision in Crickenberger v. Hyundai Motor America, 944 A.2d 1136 (Md. 2008), that such an inference would not be supported in the absence of expert testimony with respect to a "well-used" vehicle, when the circumstantial evidence itself did not tend to eliminate other causes. Id. at 1144-45. The vehicle at issue in Crickenberger was four or five years old, and had 63,700 miles on it when it "stopped working altogether." Id. at 1138. Similarly, the truck in this case was four or five years old, and had approximately 117,000 miles on it, at the time of the accident.



this case. At bottom, his alternative theory is premised on nothing more than the undisputed fact of a sudden brake failure in the truck, the discovery after the accident that the pedal rod was separated from the Booster, the distortion observed on the grommet after the accident, and the deposition testimony of the truck's driver, Page, which had been taken in the course of Appellants' initial case in the Prince George's County Circuit Court. J.A. 213. Appellants are correct that Dr. Bissell did not have to prove scientifically that the truck's brakes failed suddenly when that fact was supported by Page's testimony and undisputed by the other parties. However, in order for Dr. Bissell's proposed testimony to be admissible, his opinion does have to show why, and how, his theory of causation proceeds from those undisputed facts. Appellants urge that Page's description of the circumstances of the brakes' sudden failure is consistent with Dr. Bissell's theory that the grommet failed prior to, and thus caused, that sudden failure and the ensuing accident. Mere consistency, however, is not the applicable standard under Rule 702.<sup>10</sup> Instead, as Appellants themselves assert, "[t]he test is whether the underlying data is reliable." Br. of Appellants at

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<sup>10</sup> Cf. Bell Atl. Corp. v. Twombly, 550 U.S. 544, 557 (2007) (discussing "[t]he need at the pleading stage for allegations plausibly suggesting (not merely consistent with)" unlawful conduct to state a claim sufficiently to survive a motion to dismiss) (emphasis added).

15. Dr. Bissell's reports, however, are largely devoid of underlying scientific data for several aspects of his theories. In this respect, this case is somewhat reminiscent of Oglesby v. General Motors Corp., 190 F.3d 244 (4th Cir. 1999), which Appellees cited in their brief. In that case, the plaintiff's expert witness was clearly qualified to testify, but the content of his testimony was found to be unreliable, because it was based partially on incorrect facts and assumptions and generally lacked an adequate factual foundation.

As noted above, Dr. Ornstein testified in the Dr. Blessings Heaven trial that "[n]o one knows exactly what caused" the pedal rod to separate from the Booster. J.A. 69. Dr. Bissell's reports provide no factual basis for his conclusion to the contrary. They do nothing to show that other possible theories of causation would be inconsistent, or even less consistent, with Page's subjective experience of the brake failure, or the other facts upon which Dr. Bissell relies. His reports do nothing to exclude even the most commonsensical alternative explanations, such as, for example, that the grommet's failure and the pedal rod's separation from the Booster were consequences, as opposed to causes, of the truck's collisions with multiple other vehicles and/or objects in the course of the accident.

To be sure, Appellants are correct to argue that their expert's testimony need not be proven 100% correct in order to be admissible and to preclude summary judgment against them. However, "if an expert utterly fails to consider alternative causes or fails to offer an explanation for why the proffered alternative cause was not the sole cause, a district court is justified in excluding the expert's testimony." Cooper v. Smith & Nephew, Inc., 259 F.3d 194, 202 (4th Cir. 2001).

With regard to Dr. Bissell's proposed safer alternative design, the district court noted that, other than briefly describing his design concept, he had not provided "any further explanation for his alternative design" or any "drawings, testing data, or cost data." J.A. 354. Instead, "Dr. Bissell's statements regarding alternative designs are not based on anything more than his memory." Id. Even if we were persuaded that Dr. Bissell's claims in this regard properly constituted experiential testimony, as opposed to technical or scientific testimony, as urged by Appellants, he still was required to "explain how [his] experience leads to the conclusion reached, why [his] experience is a sufficient basis for the opinion, and how [his] experience is reliably applied to the facts." Fed. R. Evid. 702 advisory committee's note. Dr. Bissell's reports do nothing to fulfill that requirement. We conclude, therefore,

that the district court did not abuse its discretion in granting the motions in limine to exclude Dr. Bissell's testimony.

C.

Our conclusion with respect to the district court's grant of the motions for summary judgment flows directly from the above analysis of the district court's rulings on the motions in limine. As noted above, under Maryland law, expert testimony is an indispensable element of products liability claims such as the one asserted in this case; res ipsa loquitur does not apply. See Mohammad, 947 A.2d at 607-10; Wood, 760 A.2d at 319; Jensen, 437 A.2d at 242. Consequently, in the absence of any admissible expert testimony from Dr. Bissell, the district court correctly concluded that Appellants would "not be able to establish the necessary elements of their negligence or products liability claims," and that without a finding of defect predicated on those claims, "Martin's loss of consortium claim also fails." J.A. 357.

IV.

For all of the foregoing reasons, we conclude that the district court did not abuse its discretion in granting the motions in limine filed by Bosch and the Third Party Appellees to exclude Dr. Bissell's expert testimony in its entirety. We also conclude that, in light of the propriety of the district court's rulings on the motions in limine, and the resulting

absence of expert testimony in support of Appellants' claims, the district court did not err in granting the motions for summary judgment filed by Appellees and the Third Party Appellees. We therefore affirm the district court's judgment.

AFFIRMED