

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND**

JOHN DUGGER, JR., *et al.*,

v.

UNION CARBIDE CORPORATION, *et al.*

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Civil Action No. CCB-16-3912

MEMORANDUM

Before the court is defendant Honeywell International Inc.'s ("Honeywell") *Daubert* motion to preclude evidence suggesting that chrysotile asbestos used in brakes causes pleural mesothelioma or that every exposure counts (ECF 891). The motion has been fully briefed and no oral argument is necessary. For the reasons set forth below, the court will grant in part and deny in part Honeywell's motion.

FACTS

This is a case brought by John Dugger, Jr., individually and as personal representative of the estate of John Dugger, as well as John Dugger's¹ spouse and surviving children (the "plaintiffs") against Honeywell, successor-in-interest to Bendix corporation, claiming that Mr. Dugger developed mesothelioma as a result of his exposure to asbestos in Bendix brakes. Honeywell challenges the expert testimony of the plaintiffs' expert witnesses, Dr. Arthur Frank, Dr. John Maddox, and Dr. Murray Finkelstein, arguing that they are not admissible under Rule 702 of the Federal Rules of Evidence.

A. Dr. Arthur L. Frank

Dr. Arthur Frank is a physician, board certified in both internal medicine and occupational medicine, who has published approximately 100 publications regarding the subject of asbestos. Dr. Frank's Nov. 20, 2017 Supplement Report at 1, ECF 922-8 at 124. Dr. Frank

¹ John Dugger, Sr. will be referred to as "John Dugger."

submitted four reports in this case, dated August 30, November 20, and December 7, 2017, and February 27, 2018. ECF 922-8, at 121–129.² The plaintiffs have also submitted Dr. Frank's December 20, 2016 affidavit, referenced in his reports, as well as a December 10, 2013 affidavit. Dr. Frank's 2016 Affidavit, ECF 922-4 at 88–303; Dr. Frank's 2013 Affidavit, ECF 922-9 at 43–325. Additionally, Dr. Frank submitted a verification, dated September 17, 2018, in response to Honeywell's motion to preclude his testimony. Dr. Frank's Sept. 17, 2018 Verification, ECF 922-3 at 38–59.

To complete his reports, Dr. Frank reviewed Mr. Dugger's "death certificate, pathology reports, radiology records, oncology reports, discharge and admission notes, pulmonary function tests, and a work history." Aug. 30 Report at 1, ECF 922-8 at 124. He concludes that Mr. Dugger's exposure from working with asbestos-containing brakes "would have been at levels above background, would have been medically significant, and would have been medically causative of the mesothelioma which caused his death." *Id.* at 2. In his verification, Dr. Frank states "[i]n determining the relative contribution of any exposures to asbestos above background levels, it is important to consider a number of factors" such as the level and duration of exposure, proximity to the exposure, and the nature of the product. Sept. 17, 2018 Verification at 21–22. According to Dr. Frank, he "considered all of these factors in reaching [his] opinions . . . that Mr. Dugger's work with automobile brakes manufactured by Bendix was a medically significant cause of his cancer." *Id.* at 22.

B. Dr. John C. Maddox

Dr. John Maddox is a physician in the private practice of pathology at Riverside Regional Medical Center in Newport News, Virginia, and has been a practicing pathologist for over 41 years. Dr. Maddox's Dec. 14, 2017 Report at 6, ECF 922-8 at 46. Dr. Maddox completed a

² The August 30 and November 20 reports were also attached to Honeywell's motion, ECF 891-15 and 891-16.

December 14, 2017 report in this case, as well as surgical pathology reports dated June 7, 2017, and March 2 and August 3, 2018. ECF 922-8 at 41-117.

Dr. Maddox believes that Mr. Dugger's exposure to Bendix brakes combined with his exposure to asbestos while in the Navy was sufficient to cause his mesothelioma because the exposure was "high, prolonged, and repetitive" and studies have shown that even low exposures to asbestos can cause mesothelioma. Dr. Maddox's Dec. 14, 2017 Report at 56. Dr. Maddox relies on, *e.g.*, the International Agency for Research on Cancer (IARC) study published in 2012, protocols outlined by Sir Austin Bradford Hill, and the Helsinki Criteria, which was developed by 19 experts as a method for attribution of asbestos related disease. *Id.* at 25-27. In summary, his personal methodology asks: 1) whether the asbestos exposures are real, 2) whether they are significantly above normal background ambient air, 3) how they are known, 4) whether they are repetitive, 5) the risk or rate of mesothelioma, using a dose-response function, and 6) whether the exposures are within the reasonable latency period. *Id.* at 27-28.

C. Dr. Murray Finkelstein

Dr. Murray Finkelstein is a physician-epidemiologist and a former medical consultant with the Ontario Ministry of Labour. He is now retired. Finkelstein Decl. at 1, ECF 922-10 at 35. Dr. Finkelstein provides one declaration where he discusses studies on brake repair, asbestos, and mesothelioma. *Id.* at 4-11. He also makes an assessment of Mr. Dugger's risk exposure. *Id.* at 11-12. Counsel stated at Dr. Finkelstein's deposition, however, that he would be offering no plaintiff-specific causation opinions in this case. ECF 891-4 at 4.

STANDARD OF REVIEW

Rule 702 of the Federal Rules of Evidence, which governs the admissibility of expert testimony, states:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

The party seeking to introduce expert testimony has the burden of establishing its admissibility by a preponderance of the evidence. *Daubert v. Merrell Dow Pharm.*, 509 U.S. 579, 592 n.10 (1993). A district court is afforded "great deference . . . to admit or exclude expert testimony under *Daubert*." *TFWS, Inc. v. Schaefer*, 325 F.3d 234, 240 (4th Cir. 2003) (citations and internal quotation marks omitted); *see also Daubert*, 509 U.S. at 594 ("The inquiry envisioned by Rule 702 is . . . a flexible one . . ."). "In applying *Daubert*, a court evaluates the methodology or reasoning that the proffered scientific or technical expert uses to reach his conclusion; the court does not evaluate the conclusion itself," *Schaefer*, 325 F.3d at 240, although "conclusions and methodology are not entirely distinct from one another." *General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997). In essence, the court acts as gatekeeper, only admitting expert testimony where the underlying methodology satisfies a two-pronged test for (1) reliability and (2) relevance. *See Daubert*, 509 U.S. at 589. To be admissible, however, "the expert testimony need not be irrefutable or certainly correct." *Young v. Swiney*, 23 F. Supp. 3d 596, 611 (D. Md. 2014) (internal citation and quotation omitted). "In other words, the Supreme Court did not intend the gatekeeper role to supplant the adversary system or the role of 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." *Id.* (internal citations and quotations omitted).

ANALYSIS

In diversity cases, causation must be shown in accordance with state substantive law. *In re Lipitor (Atorvastatin Calcium) Marketing, Sales Practices and Products Liability Litigation*, 892 F.3d 624, 646 (4th Cir. 2018). In order to show that the defendant's conduct was the legal cause of the harm, the plaintiff must show that the conduct was a "substantial factor in bringing about the harm." *Dixon v. Ford Motor Co.*, 70 A.3d 328, 335 (Md. 2013) (internal quotations and citations omitted). "[I]n determining whether the conduct qualifies as a substantial factor, the court must consider, among other things, the nature of the product, the frequency of its use, the proximity, in distance and time, of a plaintiff to the use of the product, and the regularity of the exposure of that plaintiff to the use of the product." *Id.* (quoting *Eagle-Picher v. Balbos*, 604 A.2d 445, 460 (Md. 1992)); *see also Scapa Dryer Fabrics, Inc. v. Saville*, 16 A.3d 159, 163 (Md. 2011) ("the 'frequency, regularity, proximity test' enunciated in *Eagle-Picher v. Balbos* [is] the common law evidentiary standard used for establishing substantial-factor causation in negligence cases alleging asbestos exposure" (internal citation omitted)).

Maryland case law is not inconsistent with the principle that "[i]n order to carry the burden of proving a plaintiff's injury was caused by exposure to a specified substance, the plaintiff must demonstrate the levels of exposure that are hazardous to human beings generally as well as the plaintiff's actual level of exposure." *Westberry v. Gislaved Gummi AB*, 178 F.3d 257, 263 (4th Cir. 1999) (internal quotations and citation omitted). The Fourth Circuit also explained that "while 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." *Id.* at 264.

A recent case from the U.S. District Court in Washington provides a helpful primer on terminology regarding theories of exposure in asbestos cases:

First, the “every exposure” theory posits that “any exposure to asbestos fibers whatsoever, regardless of the amount of fibers or length of exposure constitutes an underlying cause of injury.” A slight variation of the “every exposure” theory states that “every exposure to asbestos above a threshold level is necessarily a substantial factor in the contraction of asbestos-related diseases.” Second, an outgrowth of the “every exposure” theory is the “cumulative exposure” theory. Under such a theory, the cumulative exposure to asbestos is the cause of the disease, but because each exposure, no matter how small, adds to that cumulative exposure, each exposure becomes a substantial contributing factor. (internal citations omitted).

Barabin v. Scapa Dryer Fabrics, Inc., 2018 WL 840147, at *11 (W.D. Wash. 2018).

Honeywell argues that the “each and every exposure” or “cumulative exposure” theory, upon which Honeywell says Dr. Frank and Dr. Maddox base their opinions, is neither reliable nor relevant under *Daubert*. Honeywell’s Mem. of Law in Supp. of its *Daubert* Mot., ECF 891-1, at 1–2.³ The plaintiffs, at least for the purposes of this motion, appear to agree. Pl.’s Mem. in Opp., ECF 922 at 5. Instead, they argue that Dr. Frank and Dr. Maddox’s opinions are based on Mr. Dugger’s specific exposure level, and not the general fact that he was exposed to chrysotile asbestos. *Id.* at 23–24, 25–26. Honeywell also argues that neither Dr. Frank nor Dr. Maddox have established that chrysotile asbestos present in brake dust (as opposed to chrysotile asbestos generally) causes mesothelioma, Honeywell’s Mem. of Law in Supp. of its *Daubert* Mot. at 4–8, and have not shown that the exposure Mr. Dugger experienced from Bendix brakes is sufficient to cause mesothelioma. Honeywell’s Reply, ECF 928 at 12.

Standing alone, the “each and every exposure” theory is not admissible under *Daubert*. “Opinions based on the ‘cumulative exposure’ or ‘each and every exposure’ theory have been repeatedly excluded by those courts that have considered its admissibility under Rule 702 of the

³ References to page numbers in Honeywell’s Memorandum of Law in Support of its *Daubert* Motion (ECF 891-1) Plaintiffs’ Memorandum in Opposition (ECF 922), and Honeywell’s Reply (ECF 928) are to the ECF numbers appearing at the top of the page.

Federal Rules of Evidence and *Daubert* . . .” *Rockman v. Union Carbide Corp.*, 266 F. Supp. 3d 839, 849 (D. Md. 2017); *see also Yates v. Ford Motor Co.*, 113 F. Supp. 3d 841, 848 (E.D.N.C. 2015) (excluding expert testimony pertaining to the “each and every exposure” theory); *Barabin*, 2018 WL 840147, at *7 (“The court agrees with this overwhelming precedent that the ‘every exposure’ theory is unreliable.”). While it may be true as a matter of medical science that every exposure increases the risk of mesothelioma, that does not show causation attributable to a specific product as a matter of law.

Dr. Frank

Dr. Frank considered Mr. Dugger’s exposure to Bendix brakes as well as his exposure to asbestos while in the Navy, and came to the conclusion that both exposures were “medically significant.” Aug. 30 Report at 2. In his September 17, 2018 affidavit in response to Honeywell’s motion, Dr. Frank determined the relative contribution of Mr. Dugger’s Bendix brake exposure by considering the nature of the exposure, the level and duration of the exposure, and the nature of the product. Sept. 17, 2018 Affidavit at 22. Dr. Frank’s testimony, therefore, is like the “identified exposure” testimony the *Barabin* court found reliable and relevant. There, the expert did not simply testify that every exposure to asbestos necessarily contributed to the total dose of asbestos causing mesothelioma, but that the activities at issue represented “a substantial part of [the plaintiff’s] occupational history and likely a source of intense exposure.” *Barabin*, 2018 WL 840147, at *14. As in *Barabin*, and consistent with *Balbos*, Dr. Frank has considered the frequency, regularity, and proximity of Mr. Dugger’s exposure to asbestos as a result of his use of Bendix brakes in order to come to his conclusion regarding causation. While a few of Dr. Frank’s statements may recall the “each and every exposure” theory, the “other parts of [his reports] that provide context to” those statements show that Dr. Frank considered the

specifics of Mr. Dugger's exposure to Bendix brakes when coming to his conclusion. *Dixon*, 70 A.3d at 335.

This case is distinguishable from *Rockman*, which Honeywell cites in its motion.⁴ In *Rockman*, the plaintiff had been exposed to asbestos as a bystander during three home repair projects that in total spanned no more than several weeks. 266 F. Supp. 3d at 842. Mr. Dugger's exposure to asbestos was, in contrast, occupational and prolonged. Further, unlike in *Rockman*, Dr. Frank has determined that Mr. Dugger's occupational exposure to asbestos in Bendix brakes was significant. *C.f. id.* at 847 ("[N]either Dr. Abraham nor Dr. Frank has been able to quantify Mr. Rockman's exposure as 'significant.'"). Additionally, the *Rockman* experts relied on studies involving high levels of exposure to amphibole asbestos resulting in pleural mesothelioma, when Mr. Rockman was actually exposed to low levels of chrysotile asbestos and developed peritoneal mesothelioma. *Id.* at 846. Here, Mr. Dugger was occupationally exposed to high levels of chrysotile asbestos and developed pleural mesothelioma. In keeping with these facts, Dr. Frank relied on studies regarding chrysotile asbestos, pleural mesothelioma, and brake repair.⁵ Therefore, Dr. Frank relied on relevant studies in reaching his conclusions and his opinions will be helpful for the jury.

Honeywell also argues that Dr. Frank has not used a reliable methodology, as he has relied on regulatory statements, mixed fiber studies, and an amicus brief to come to his conclusions. Honeywell's Reply at 4–5. Dr. Frank, however, came to his conclusion using the "weight-of-the-evidence methodology" considering "all the forms of scientific evidence on

⁴ The court believes this case also is distinguishable from *Yates*, 113 F. Supp. 3d 841, but to the extent it is not, respectfully disagrees.

⁵ Honeywell argues that the plaintiffs' experts have not shown that brake dust, as opposed to chrysotile asbestos generally, causes mesothelioma. They argue that the expert testimony "is legally insufficient to demonstrate that the substances found in brake dust can cause pleural mesothelioma." Honeywell's Mem. of Law in Supp. of its *Daubert* Mot. at 28. Dr. Frank, however, discussed relevant studies relating to brakes and mesothelioma in his section "Asbestos Dust in Brakes and Clutches Causes Mesothelioma" in his Sept. 17, 2018 Affidavit, at 3–12, and his identically titled section in his 2016 Affidavit, at 148–76.

causality of asbestos disease.” Dr. Frank’s 2016 Affidavit at 10–11. This includes the consideration of numerous studies on the relationship between chrysotile asbestos and pleural mesothelioma. *See e.g. id.* at 57–64 (reviewing studies of individuals who developed mesothelioma after exposure to chrysotile asbestos). Therefore, Dr. Frank has clearly come to his conclusions after consideration of scientific and reliable evidence. Further, Honeywell is free to question the reliability of certain evidence Dr. Frank relied upon in cross-examination. *See Young*, 23 F. Supp. 3d at 611 (the appropriate way to challenge shaky evidence is through vigorous cross-examination). Likewise, Honeywell’s contentions that the epidemiological studies relied on by the plaintiffs’ experts fail to take into account certain confounding factors or do not support a link between brake repair and mesothelioma, *see* Honeywell’s Reply at 6, or that epidemiological studies show no increased risk of mesothelioma for brake mechanics, Honeywell’s Mem. of Law in Supp. of its *Daubert* Mot. at 34, are challenges to the expert testimony that are more appropriately brought before a jury. *See Young*, 23 F. Supp. 3d at 611; *Waite v. All Acquisition Corp.*, 194 F. Supp. 3d 1298, 1313 (S.D. Fla. 2016) (one type of scientific evidence – epidemiological studies – does not properly overcome all others, especially when the plaintiff’s experts “have properly considered and evaluated a variety of scientific evidence . . . including epidemiological studies, animal, cellular and molecular studies, and unbiased reviewed of these materials by research agencies such as . . . IARC.”) (admitting Dr. Frank’s testimony).

Dr. Maddox

For the same reasons, Dr. Maddox’s expert testimony is also reliable and relevant under *Daubert*. Dr. Maddox also considered the high, prolonged, and repetitive nature of Mr. Dugger’s exposure in coming to his conclusion that Mr. Dugger’s exposure to Bendix brakes was a

substantial contributing factor to his mesothelioma. Dec. 14, 2017 Report at 56. Therefore, as was the case for Dr. Frank, Dr. Maddox's testimony is not based on the "each and every exposure" theory. Also like Dr. Frank, Dr. Maddox has based his conclusion on reliable and relevant studies and other materials; Dr. Maddox considered "articles, chapters, books and other learned treatises regarding lung diseases caused by asbestos exposure," epidemiological and other studies, and reviews of scientific evidence by research groups such as the IARC. *Id.* at 24–29.

Honeywell also argues that studies on chrysotile fibers generally are not applicable to the potency of chrysotile fibers in brake dust, as the plaintiffs' experts "cannot point to any scientific basis to conclude that the science pertaining to 'asbestos' generally actually pertains to or applies with equal force to the fibers found in automotive brake dust" because the process to create brake pads may inactivate the chrysotile fibers. Honeywell's Mem. of Law in Supp. of its *Daubert* Mot. at 9, 30. As discussed previously, Dr. Frank does consider research specific to brakes. And although Dr. Maddox does not, "expert testimony need not be based upon identical case studies or epidemiological data." *Benedi v. McNeil-P.P.C., Inc.*, 66 F.3d 1378, 1384 (4th Cir. 1995) (internal citation omitted). Here, Dr. Maddox's consideration of studies regarding chrysotile asbestos is certainly relevant to Mr. Dugger's alleged exposure to chrysotile asbestos contained in Bendix brakes. Honeywell's argument that chrysotile in brake dust form has different properties than chrysotile asbestos generally goes to the weight of Dr. Maddox's conclusion, but not its admissibility.

Dr. Finkelstein

Dr. Finkelstein's declaration provides an overview of various studies on the relationship between brake repair work, asbestos exposure, and mesothelioma. *See* Dr. Finkelstein's Decl. at

1-17. Counsel confirmed at Dr. Finkelstein's deposition that he would not provide any plaintiff-specific causation opinions. ECF 891-4 at 4. Therefore, based on his declaration, it appears he will testify regarding various studies on brake repair and asbestos. His testimony is relevant and reliable, as he focuses his testimony on studies that relate to the facts of Mr. Dugger's case. Therefore his testimony will be allowed.

CONCLUSION

Accordingly, the court will deny Honeywell's *Daubert* motion to preclude evidence relating to Dr. Frank, Dr. Maddox, and Dr. Finkelstein, except that the plaintiffs' experts will not be allowed to rely on the "each and every exposure" theory. A separate order follows.

Date

9/30/19


Catherine C. Blake
United States District Judge

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND**

JOHN DUGGER, JR., *et al.*,

v.

UNION CARBIDE CORPORATION, *et al.*

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Civil Action No. CCB-16-3912

ORDER

For the reasons stated in the accompanying Memorandum, it is hereby **ORDERED** that:

1. The defendant's *Daubert* motion to preclude evidence suggesting that chrysotile asbestos used in brakes causes pleural mesothelioma or that every exposure counts (ECF 891) is GRANTED in part and DENIED in part; and
2. The Clerk shall SEND copies of this Order and the accompanying Memorandum to counsel of record.

Date

9/30/19



Catherine C. Blake
United States District Judge