

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND

JEFFREY ROCKMAN &
SONJA ROCKMAN,

Plaintiffs,

v.

UNION CARBIDE CORP., *et al.*,

Defendants.

Civil Action No.: RDB-16-1169

* * * * *

MEMORANDUM OPINION

Plaintiff Jeffrey Rockman (“Plaintiff” or “Mr. Rockman”) is a prominent Maryland lawyer, who was diagnosed with *peritoneal* mesothelioma¹ on October 28, 2014. Prior to his illness, Mr. Rockman was an active partner in a Towson, Maryland law firm. Mr. Rockman has testified that he never worked with asbestos or used any asbestos-containing product. However, in this case he attributes his mesothelioma to “bystander” asbestos exposure during three home repair projects in 1965, 1973, and 1976, although those projects spanned no more than several weeks in total, where workmen allegedly used a Georgia-Pacific, LLC (“Georgia-Pacific”) “Ready Mix” joint compound that contained *Calidria chrysotile* asbestos supplied by Union Carbide Corporation (“Union Carbide”). Accordingly, Mr. Rockman and his wife, Sonja Rockman, (collectively “Plaintiffs” or “the Rockmans”) have now brought this action against Union Carbide and Georgia-Pacific.

¹ “Peritoneal” mesothelioma refers specifically to a cancer of the lining of the abdomen. *See, e.g., Norfolk & W. Ry. Co. v. Ayers*, 538 U.S. 135, 142 (2003); 60 Am. Jur. Trials 73.

This action was initially filed in the Circuit Court for Baltimore City, Maryland, but Union Carbide has removed the case to this Court.² Via Order and Judgment dated June 22, 2017 (ECF Nos. 183 & 184), this Court has previously granted Defendants' *unopposed* motions for summary judgment as to Mr. Rockman's claims of Breach of Warranty (Count Two), Fraud (Count Four), Conspiracy (Count Five), and Market Share Liability (Count Six); any aiding and abetting claim against Georgia-Pacific; any claim based on Mr. Rockman's earlier-diagnosed kidney cancer; and the Rockmans' request for punitive damages. Still pending before this Court are Union Carbide's Motion for Summary Judgment (ECF No. 156) and Georgia-Pacific's Motion for Summary Judgment (ECF No. 159) with respect to the three remaining claims; alleging Strict Liability (Count One), Negligence (Count Three), and Loss of Consortium (Count Seven). Also still pending are Georgia-Pacific's Motion to Exclude Specific Causation Opinions of Plaintiffs' Experts Drs. Frank, Abraham, and Brody (ECF No. 161) and Union Carbide's *Daubert* Motion to Preclude Testimony Regarding Calidria Chrysotile or that "Each and Every" Exposure to a Product Contributes to the Development of Peritoneal Mesothelioma (ECF No. 162).

This Court conducted a hearing on the pending motions on July 6, 2017. *See* Local Rule 105.6 (D. Md. 2016). For the reasons stated herein, Defendants' Motions to Exclude Expert Testimony (ECF Nos. 161 & 162) are both GRANTED. The "specific causation" opinions of Plaintiffs' experts Dr. Jerrold Abraham and Dr. Arthur Frank that Mr.

² Although Plaintiffs initially named an additional twenty-four Defendants in this action, they have since voluntarily dismissed all claims against those Defendants, including all Defendants with corporate citizenship in Maryland, thereby rendering this case removable based on "diversity of citizenship" under 28 U.S.C. § 1332. *See* Memorandum Order, ECF No. 114 (granting Stipulations of Dismissal). Kaiser Gypsum Company, Inc. ("Kaiser Gypsum") remains listed as a Defendant, but has subsequently filed a Suggestion of Bankruptcy (ECF No. 143) and is no longer participating in this case.

Rockman's alleged exposures in 1965, 1973, and 1976 to Union Carbide Calidria *chrysotile* asbestos contained in Georgia-Pacific's "Ready Mix" joint compound "caused" or were a "substantial factor" in his developing peritoneal mesothelioma are excluded. Additionally, any testimony by Drs. Abraham or Frank or by Plaintiffs' expert Dr. Arnold Brody³ based on their underlying theory that "each and every" exposure to asbestos "cumulates" and should therefore be considered a cause of injury, regardless of the type of mesothelioma, the exposure "dose," or the type of asbestos, is also excluded. Their opinions fail to satisfy Rule 702 of the Federal Rules of Evidence or the factors for the admissibility of expert testimony set forth by the United States Supreme Court in *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 592–93 (1993), and recently confirmed by the United States Court of Appeals for the Fourth Circuit in *Bresler v. Wilmington Trust Co.*, 855 F.3d 178, 195 (4th Cir. 2017). There is simply insufficient data to support their theory that *any* exposure to asbestos, no matter how brief, and regardless of the type of asbestos, should be considered a "substantial factor" in Mr. Rockman's developing *peritoneal* mesothelioma some thirty-eight years after his last alleged contact with any asbestos-containing product.

Plaintiffs' counsel acknowledged at this Court's July 6, 2017 hearing that the Plaintiffs cannot survive summary judgment without the causation testimony of their experts. Accordingly, Defendants' Motions for Summary Judgment (ECF Nos. 156 & 159) are also GRANTED as to the Rockmans' three remaining claims; alleging Strict Liability (Count One), Negligence (Count Three), and Loss of Consortium (Count Seven). Even if this Court were not to exclude the causation opinions of Plaintiffs' experts, summary judgment

³ Dr. Brody has not offered a "specific causation" opinion in this case, but generally supports what has been repeatedly characterized as the "each and every exposure" theory of causation.

would still be granted for the Defendants for the reasons discussed herein. Therefore, Judgment shall be entered for Defendants as to the remaining Counts One, Three, and Seven against them.

BACKGROUND

In ruling on a motion for summary judgment, this Court must consider the facts and all reasonable inferences in the light most favorable to the nonmoving party. *See Libertarian Party of Va. v. Judd*, 718 F.3d 308, 312 (4th Cir. 2013). The facts of this case have been previously set forth in this Court’s Memorandum Opinion of June 22, 2017 (ECF No. 183). Mr. Rockman has testified that he was exposed to an asbestos-containing product only three times in his life: during a repair to the bedroom ceiling of his Brooklyn, New York apartment in the summer of 1965, repairs to the foyer and living room walls of his Baltimore, Maryland apartment in June of 1973, and a repair to the living room ceiling and dining room walls of his prior home on Broadmoor Road in Baltimore, Maryland in early 1976. Rockman Dep., pp. 36-88; 111-125; 133-160, ECF No. 174-2. Mr. Rockman did not perform those home repairs himself, but rather hired “workmen” or “handymen.” *Id.* Mr. Rockman contends that Georgia-Pacific “Ready Mix” joint compound was used in all three repairs, that it contained Union Carbide asbestos, and that its use generated asbestos-containing dust, to which Mr. Rockman was exposed. *Id.*

From 1963 to 1985, Union Carbide Corporation (“Union Carbide”) mined, milled, manufactured and marketed to other asbestos product manufacturers a particular *chrysotile* asbestos product under the trade name Calidria asbestos. *See* Union Carbide’s Answers to Plaintiffs’ First Set of Interrogatories and Request for Production of Documents in the

United States District Court for the District of South Carolina, ECF No. 174-3. There is no dispute that Georgia-Pacific purchased Calidria for use in its joint compound products in approximately 1970. Mr. Rockman concedes that he was not exposed to Union Carbide Calidria prior to 1970, during the repair to his New York apartment in the summer of 1965.

Plaintiffs have submitted the expert testimony of Dr. Jerrold Abraham, Dr. Arthur Frank, and Dr. Arnold Brody. Drs. Abraham and Frank have both specifically concluded that Mr. Rockman's alleged exposures to Union Carbide Calidria *chrysotile* asbestos contained in Georgia-Pacific's Ready Mix joint compound caused him to develop *peritoneal* mesothelioma. *See* Abraham Report, ECF No. 162-38; Frank Report, ECF No. 162-37. Dr. Brody has offered no such "specific causation" opinion, but generally supports the theory that "each and every" exposure to asbestos "cumulates" and should therefore be considered a cause of injury, regardless of the type of mesothelioma, the exposure "dose," or the type of asbestos, a theory on which Drs. Abraham and Frank also rely. *See, e.g.*, Brody Dep., p. 28, ECF No. 161-9. Defendants Georgia-Pacific and Union Carbide have now moved under Rules 403 and 702 of the Federal Rules of Evidence and the United States Supreme Court's decision in *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 592–93 (1993), to exclude the specific causation testimony of Drs. Abraham and Frank with respect to Union Carbide Calidria *chrysotile* asbestos and Georgia-Pacific's Ready Mix joint compound, as well as any testimony based on the "each and every exposure" causation theory. *See* Mots., ECF Nos. 161 & 162. Defendants have additionally moved for summary judgment on all remaining claims against them. *See* Mots., ECF Nos. 156 & 159.

STANDARDS OF REVIEW

I. *Motions to Exclude Expert Testimony Under Rule 702 of the Federal Rules of Evidence*

Rule 702 of the Federal Rules of Evidence provides that “[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.

“Under Rule 702 . . . Courts are required to act as ‘gatekeepers’ to ensure that expert testimony is relevant and reliable.” *Bresler v. Wilmington Trust Co.*, 855 F.3d 178, 195 (4th Cir. 2017) (quoting *Cooper v. Smith & Nephew, Inc.*, 259 F.3d 194, 199 (4th Cir. 2001) (citing *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 588 (1993))). “[A] district court ‘must conduct a preliminary assessment’ to determine whether the methodology underlying the expert witness’ testimony is valid.” *Id.* (quoting *Daubert*, 509 U.S. at 592-93).

Although Rule 702 allows for a liberal introduction of expert evidence, “courts must recognize that due to the difficulty of evaluating their testimony, expert witnesses have the potential to ‘be both powerful and quite misleading.’” *Westberry v. Gislaved Gummi AB*, 178 F.3d 257, 261 (4th Cir. 1999) (quoting *Daubert*, 509 U.S. at 595). The proponent of the expert testimony in question must establish admissibility “by a preponderance of proof.” *Cooper*, 259 F.3d at 199 (citing *Daubert*, 509 U.S. at 592 n. 10). The United States Supreme Court in *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993) set forth several factors for courts to consider in assessing the admissibility of expert testimony. The United States

Court of Appeals for the Fourth Circuit has recently confirmed those factors in *Bresler v. Wilmington Trust Co.*, 855 F.3d 178, 195 (4th Cir. 2017):

In assessing the validity of the methodology employed by a proposed expert witness, a court may consider whether the expert witness' theory or technique: (1) "can be or has been tested"; (2) "has been subjected to peer review and publication"; (3) "has a high known or potential rate of error"; and (4) is generally accepted "within a relevant scientific community."

(citing *Cooper*, 259 F.3d at 199). The *Daubert* factors are "neither definitive, nor exhaustive." *Cooper*, 259 F.3d at 199 (citing *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 150 (1999)). Rather, "[t]he district court must be granted 'considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable.'" *United States v. McLean*, No. 16-4673, 2017 WL 2533381, at *1 (4th Cir. June 12, 2017) (quoting *United States v. Wilson*, 484 F.3d 267, 273 (4th Cir. 2007)).

II. *Motions for Summary Judgment Pursuant to Rule 56 of the Federal Rules of Civil Procedure*

Rule 56 of the Federal Rules of Civil Procedure provides that a court "shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c). A material fact is one that "might affect the outcome of the suit under the governing law." *Libertarian Party of Va. v. Judd*, 718 F.3d 308, 313 (4th Cir. 2013) (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986)). A genuine issue over a material fact exists "if the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Anderson*, 477 U.S. at 248. When considering a motion for summary judgment, a judge's function is limited to determining whether sufficient evidence exists on a claimed factual dispute to warrant submission of the matter to a jury for resolution at trial. *Id.* at 249. In

undertaking this inquiry, this Court must consider the facts and all reasonable inferences in the light most favorable to the nonmoving party. *Libertarian Party of Va.*, 718 F.3d at 312; *see also Scott v. Harris*, 550 U.S. 372, 378 (2007). This Court “must not weigh evidence or make credibility determinations.” *Foster v. University of Md.-Eastern Shore*, 787 F.3d 243, 248 (4th Cir. 2015) (citing *Mercantile Peninsula Bank v. French*, 499 F.3d 345, 352 (4th Cir. 2007)). However, this Court must also abide by its affirmative obligation to prevent factually unsupported claims and defenses from going to trial. *Drewitt v. Pratt*, 999 F.2d 774, 778-79 (4th Cir. 1993).

ANALYSIS

I. *Defendants’ Motions to Exclude Expert Testimony (ECF Nos. 161 & 162) are GRANTED with Respect to the Specific Causation Opinions of Drs. Jerrold Abraham and Arthur Frank*

In determining whether an expert’s opinion satisfies *Daubert* scrutiny, the United States Court of Appeals for the Fourth Circuit has directed courts to “evaluate . . . the opinion’s underlying methodology.” *Bresler*, 855 F.3d at 195. In this case, the specific causation opinions of Drs. Abraham and Frank are not the “product of reliable principles and methods,” as required by Rule 702(c) of the Federal Rules of Evidence, nor do they satisfy the *Daubert* factors, including “testability,” “peer review,” and “general acceptance” within the “relevant scientific community,” *Bresler*, 855 F.3 at 195. On the contrary, both experts have improperly drawn conclusions about this case, a case involving *peritoneal* mesothelioma and *low-level bystander* exposure to *chrysotile* asbestos, based on prior research studying *pleural* mesothelioma and primarily *high-level* exposures to *amphibole* asbestos. As discussed further herein, *chrysotile* asbestos is classified in an entirely separate mineralogical family from *amphibole* asbestos and is widely considered less potent. *Pleural* mesothelioma is a cancer of the lining of the lungs, while *peritoneal* mesothelioma affects the stomach.

In support of their opinions that Mr. Rockman's peritoneal mesothelioma was "caused" by his alleged 1965, 1973, and 1976 bystander asbestos exposures, Drs. Abraham and Frank have cited a series of studies involving high-level *occupational* exposures to asbestos. *See* Frank Aff., p. 2, n. 2, ECF No. 161-6 (citing, *e.g.*, studies of mesothelioma among "chrysotile textile workers" and "employees of . . . factory that manufactured friction materials using chrysotile asbestos."). In contrast, Mr. Rockman has not alleged that he ever worked with asbestos or used an asbestos-containing product. He was merely *present* while workers completed three repair projects at his home in 1965, 1973, and 1976. Those projects lasted at most "several weeks," and it is unclear for how much of that time Georgia-Pacific's joint compound was actually used. Neither Dr. Abraham nor Dr. Frank has been able to quantify Mr. Rockman's alleged exposure to chrysotile asbestos, although Dr. Abraham has explicitly indicated that it is "unlikely" Mr. Rockman's exposure was even as high as "one fiber-year⁴." Abraham Dep., p. 46, ECF No. 161-4. Plaintiffs' experts have identified no study associating *peritoneal* mesothelioma with *chrysotile* exposures lower than 100 fiber-years. *See id.* at 46-47; Brody Dep., p. 28, ECF No. 161-9. As noted *supra*, *peritoneal* mesothelioma is a specific type of mesothelioma affecting the lining of the stomach as opposed to the lungs, and *chrysotile* is a distinct, and less potent, asbestos type.

Although "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), the

⁴ Asbestos exposures are routinely measured in "fiber-years." " 'Fiber-years' are calculated by multiplying a worker's duration of exposure (measured in years) by the average air concentration during the period of exposure (measured in number of fibers per cubic centimeter/milliliter of air)." *Lee v. CertainTeed Corp.*, No. 5:13-CV-826-FL, 2015 WL 4526165, at *4 (E.D.N.C. July 27, 2015) (citing U.S. Dep't of Health & Human Servs. Agency for Toxic Substances & Disease Registry, Tremolite Asbestos and Other Related Types of Asbestos, available at <http://www.atsdr.cdc.gov/asbestos/more-about-asbestos/health-consultation/>).

Fourth Circuit has recently made clear in *Lord & Taylor, LLC v. White Flint, L.P.*, 849 F.3d 567, 577 (4th Cir. 2017), *as amended* (Mar. 7, 2017), that courts must “ ‘ensur[e] that an expert’s testimony both rests on a *reliable* foundation and is *relevant* to the task at hand.’ ” (citing *Nease v. Ford Motor Co.*, 848 F.3d 219, 229 (4th Cir. 2017) (quoting *Daubert*, 509 U.S. at 597)) (emphasis in original).

In reaching their conclusions, Drs. Abraham and Frank have relied on the “Helsinki Criteria,” *see* Consensus Report: Asbestos, asbestosis, and cancer: the Helsinki criteria for diagnosis and attribution, 23 Scand. J. Work Env’t Health 311 (1997), ECF No. 171-5, which Plaintiffs contend “do ***not*** require a quantitative estimate of a patient’s asbestos ‘dose.’ ” Pl. Opp’n, p. 7, ECF No. 171 (emphasis in original). Although the Helsinki Criteria provides that “significant . . . domestic, or environmental exposure to asbestos will suffice” to attribute mesothelioma to those asbestos exposures, neither Dr. Abraham nor Dr. Frank has been able to quantify Mr. Rockman’s exposure as “*significant.*” As the United States District Court for the Eastern District of North Carolina observed in *Yates v. Ford Motor Co.*, 113 F. Supp. 3d 841, 861–62 (E.D.N.C.), *reconsideration denied*, 143 F. Supp. 3d 386 (E.D.N.C. 2015), the use of the term “significant . . . implies that a certain level has been established at which the asbestos exposure attains ‘significance.’ ” The North Carolina court in *Yates* specifically excluded an expert’s causation opinion, based on the Helsinki Criteria, because he had failed to demonstrate that a “significant” asbestos exposure had occurred. *Id.* at 862. The court further concluded that “[t]o the extent the Helsinki Criteria does not require an expert to establish the levels at which the particular fiber type of asbestos presents a risk, the criteria

cannot substitute for the well-established and legally-recognized methods of determining when a substance is hazardous.” *Id.*

Drs. Abraham and Frank have likewise conflated data on *pleural* mesothelioma and *amphibole* asbestos with data on *peritoneal* mesothelioma and *chrysotile* asbestos. The Supreme Court of the United States in *Norfolk & W. Ry. Co. v. Ayers*, 538 U.S. 135, 142 (2003) has defined “mesothelioma” as “a fatal cancer of the lining of the lung or abdominal cavity.” “Peritoneal” mesothelioma refers specifically to mesothelioma of the abdomen, while “pleural” mesothelioma refers to mesothelioma of the lungs and chest. *See, e.g.*, 60 Am. Jur. Trials 73. Although it is undisputed that Mr. Rockman has been diagnosed with *peritoneal* mesothelioma, Plaintiffs’ experts have relied on studies of pleural mesothelioma or pleural *and* peritoneal mesothelioma. This is despite the fact that both Dr. Abraham and Dr. Brody have acknowledged that peritoneal mesothelioma is typically caused by higher exposure levels than pleural mesothelioma. Abraham Dep., pp. 39-40, ECF No. 161-4; Brody Dep., p. 26, ECF No. 161-9. In fact, the Helsinki Criteria (ECF No. 171-5), relied upon by Plaintiffs, specifically cites “evidence that peritoneal mesotheliomas are associated with higher levels of asbestos exposure than pleural mesotheliomas.”

Additionally, it is undisputed that Union Carbide sold Georgia-Pacific a specific type of asbestos, *Calidria chrysotile* asbestos, for the production of Georgia-Pacific joint compound. *See, e.g.*, Pl. Opp’n, pp. 3-4, ECF No. 173 (citing Georgia-Pacific’s Responses to Interrogatories, p. 6, ECF No. 173-5). As the United States District Court for the Eastern District of North Carolina has observed in *Yates v. Ford Motor Co.*, 113 F. Supp. 3d 841, 853 (E.D.N.C.), “[t]here are different forms of asbestos, including chrysotile, crocidolite,

cummingtonite-grunerite (also known as amosite), actinolite, anthophyllite, and tremolite asbestos” (citing MSHA Asbestos Rule, 11285)). “ ‘Amphibole’ asbestos includes amosite, crocidolite and tremolite . . . ‘[a]mphiboles’ are classified in a mineralogical family separate from chrysotile asbestos.” *Id.* (citing Deposition testimony of Pls.’ expert). With agreement of the parties, the North Carolina court observed in *Yates* that “amphibole asbestos is more potent than chrysotile asbestos, and that higher levels of exposure to chrysotile asbestos than amphibole asbestos are necessary to cause mesothelioma.” *Id.*; see also *Bartel v. John Crane, Inc.*, 316 F. Supp. 2d 603, 606 (N.D. Ohio 2004), *aff’d sub nom. Lindstrom v. A-C Prod. Liab. Trust*, 424 F.3d 488 (6th Cir. 2005) (“[A]mphiboles can be up to 100 to 500 times more potent than chrysotile in causing mesothelioma.”).

Drs. Abraham and Frank have cited several studies involving asbestos types other than chrysotile. See, e.g., Iwatsubo, et al., Pleural Mesothelioma: Dose-Response Relation at Low Levels of Asbestos Exposure in a French Population-Based Case-Control Study, 148(2) *Am. J. Epidemiology* 133 (1998). However, the United States District Court for the Eastern District of North Carolina in the *Yates* case specifically excluded an expert’s causation opinion for its failure to “take into account that not all asbestos is the same.” *Yates*, 113 F. Supp. 3d at 853. Like Mr. Rockman, the Plaintiff in *Yates* alleged exposure to “chrysotile asbestos” specifically, but the “causation opinions” of his expert witness, Dr. Marks, “address[ed] ‘visible dust’ from *all* asbestos-containing products, without distinguishing between fiber types, or at least offering a reliable explanation for why it is proper to do so.” *Id.* at 854. The court reasoned that “it [was] chrysotile asbestos, not merely asbestos as a whole, for which Mark should have established a ‘level of exposure that [is] hazardous to

human beings generally.” *Id.* Therefore, the court concluded that Dr. Marks “ha[d] not reliably applied the methods of demonstrating toxicological causation to the facts of th[e] case” and that the “effect of Mark’s opinions [was] to deluge the trier of fact with a storm of questionable statistics, without guidance as to how these statistics establish a generally hazardous level of exposure to the forms of asbestos [at issue].” *Id.* at 854, 856.

Like Dr. Marks in the *Yates* case, Plaintiffs’ experts Dr. Abraham and Dr. Frank have failed to support their specific causation opinions with “sufficient facts or data” or a “testable,” “peer-reviewed” theory that is “generally accepted” within the scientific community. *See* Fed. R. Evid. 702(c); *Bressler*, 855 F.3d at 195. Plaintiffs’ experts have not only conflated asbestos type and disease type in their analysis of the relevant scientific data, but have been unable to identify any study associating *peritoneal* mesothelioma with *chrysotile bystander exposures* as limited in duration and proximity as Mr. Rockman’s alleged 1965, 1973, and 1976 exposures. Although Plaintiffs have cited a single paper by Dr. Laura Welch, “Asbestos Exposure Causes Mesothelioma, But Not This Asbestos Exposure: An Amicus Brief to the Michigan Supreme Court” (the “Welch Paper”) (ECF No. 187-1), for the proposition that each and every low-level exposure to asbestos, regardless of asbestos type, must be considered a cause of mesothelioma, the United States District Court for the Eastern District of North Carolina has specifically held that “this document, which was initially prepared for purposes of litigation, is not one that ‘experts in the particular field would reasonably rely on’ for purposes of satisfying Federal Rule of Evidence 703.” *Yates*, 113 F. Supp. 3d at 847. This Court concludes the same. For these reasons, Defendants’ Georgia-Pacific and Union Carbide’s Motions to Exclude Expert Testimony (ECF Nos. 161

& 162) are both GRANTED with respect to the specific causation opinions of Drs. Abraham and Frank.

II. *Defendants' Motions to Exclude Expert Testimony (ECF Nos. 161 & 162) are GRANTED with Respect to the "Each and Every Exposure" Theory*

All three of Plaintiffs' experts have espoused the theory that "each and every" exposure to asbestos "cumulates" and should therefore be considered a cause of injury, regardless of the type of mesothelioma, the exposure "dose," the type of asbestos, or the passage of time. Dr. Frank has specifically stated that "[t]he *cumulative exposures* [Mr. Rockman] had to asbestos, from *any and all products*, containing *any and all fiber types* . . . would all have contributed to his [mesothelioma]." Frank Report, p. 2, ECF No. 162-37 (emphasis added). Dr. Abraham has similarly indicated that he requires only "a history that someone has had exposure more than they would have otherwise had" before it is "sufficient for [him] to attribute their mesothelioma totally, if that's their only exposure or in part if that's part of their cumulative exposure." Abraham Dep., p. 51, ECF No. 162-34. Additionally, Dr. Brody has likewise indicated that the precise amount of exposure is "not really relevant" because "at levels above background *regardless of the source or however it happened*," all asbestos exposures cause disease. Brody Dep., pp. 8-10, ECF No. 161-9.

Although Plaintiffs' experts do not explicitly use the phrase "each and every exposure," the theories are one and the same. *See, e.g., Yates*, 113 F. Supp. 3d at 846 ("Also referred to as "any exposure" theory, or "single fiber" theory, [the "each and every exposure" theory] represents the viewpoint that, because science has failed to establish that any specific dosage of asbestos causes injury, every exposure to asbestos should be considered a cause of injury."). In fact, Dr. Frank has previously stated that he specifically

avoids using the phrase “each and every” in light of court rulings excluding testimony based on that theory. *See, e.g.*, Frank Dep. p. 70, ECF No. 162-35. The United States District Court for the Western District of Wisconsin has recently rejected Dr. Frank’s rephrasing in *Suoja v. Owens-Illinois, Inc.*, 211 F. Supp. 3d 1196, 1207 (W.D. Wis. 2016), holding that, whether called “cumulative exposure” or “each and every exposure,” Dr. Frank’s “ultimate opinion was not tied to any specific quantum of exposure that was attributable to defendant, but instead was based on his holistic view that every exposure to asbestos, no matter how minimal, is a substantial contributing factor to any resulting mesothelioma.” The United States District Court for the Northern District of Illinois has held the same in *Krik v. Owens-Illinois, Inc.*, 2015 WL 5050143, *1 (N.D. Ill. Aug. 25, 2015), ruling that Dr. Frank’s “cumulative exposure” testimony was no different than “each and every” exposure testimony.

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 Federal Rules of Evidence and *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 588 (1993)). The United States District Court for the Eastern District of North Carolina in the case of *Yates v. Ford Motor Co.*, 113 F. Supp. 3d 841, 848 (E.D.N.C.), *reconsideration denied*, 143 F. Supp. 3d 386 (E.D.N.C. 2015), discussed *supra*, specifically excluded Dr. Brody’s testimony as to the “each and every exposure” theory, reasoning that “Plaintiffs ha[d] failed to show” that Brody’s reliance on the theory “ha[d] sufficient supporting facts and data.” *Id.* at 847. The court rejected Dr. Brody’s reliance on the Welch Paper, discussed *supra*, as well as Plaintiffs’ attempt to re-characterize his theory as an “above

background” theory. *Id.* Numerous courts have similarly excluded “each and every exposure” testimony and opinions grounded in that theory, as the court in *Yates* observed:

The theory that “each and every exposure to asbestos products results in injury to the person so exposed” has made repeat appearances in the realm of asbestos litigation. *Krik v. Crane Co.*, 76 F. Supp. 3d 747, 749–50 (N.D. Ill. 2014); see William L. Anderson, “The ‘Any Exposure’ Theory Round II—Court Review of Minimal Exposure Expert Testimony in Asbestos and Toxic Tort Litigation Since 2008,” 22 Kan. J.L. & Pub. Pol’y 1 (2012) Numerous courts have excluded expert testimony or evidence grounded in this theory, reasoning that it lacks sufficient support in facts and data. *E.g.*, *Comardelle v. Pa. Gen. Ins. Co.*, 76 F. Supp. 3d 628, 632–33 (E.D. La. 2015); *Krik*, 76 F. Supp. 3d at 752–53, [*Anderson v. Ford Motor Co.*, 950 F. Supp. 2d 1217, 1225 (D. Utah 2013)]; *Sclafani v. Air & Liquid Sys. Corp.*, No. 2:12–CV–3013, 2013 WL 2477077, at *5 (C.D. Cal. May 9, 2013); *Henricksen v. ConocoPhillips Co.*, 605 F. Supp. 2d 1142, 1166 (E.D. Wash. 2009). Likewise, applying the *Daubert* factors, courts have found that the theory cannot be tested, has not been published in peer-reviewed works, and has no known error rate. *Krik*, 76 F. Supp. 3d at 753–54; *Anderson*, 950 F. Supp. 2d at 1224–25; *Sclafani*, 2013 WL 2477077, at *5; see *Wills v. Amerada Hess Corp.*, 379 F.3d 32, 49 (2d Cir. 2004) (affirming exclusion of theory that decedent’s cancer was caused by a single exposure to toxic chemicals, regardless of dosage, based on *Daubert* factors).

Yates, 113 F. Supp. 3d at 846.

Plaintiffs have cited a series of state court decisions accepting the “each and every exposure” theory, including the decision of the Court of Appeals of Maryland in *Dixon v. Ford Motor Co.*, 70 A.3d 328, 331 (Md. 2013). However, as this Court explained on the record at the July 6, 2017 hearing, Maryland state courts do not follow Rule 702 of the Federal Rules of Evidence or *Daubert* in assessing the admissibility of expert opinion testimony. Rather, “Maryland adheres to the standard set forth in *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923) [and adopted by the Court of Appeals of Maryland in *Reed v. State*, 391 A.2d 364 (Md. 1978)], for determining the admissibility of scientific evidence and expert scientific testimony.” *Montgomery Mut. Ins. Co. v. Chesson*, 923 A.2d 939, 946 (Md. 2007).

Under the *Frye-Reed* test, “[t]he opinion of an ‘expert’ witness should be admitted only if the court finds that ‘the basis of the opinion is *generally accepted* as reliable within the expert’s particular scientific field.’ ” *Id.* (quoting *Wilson v. State*, 803 A.2d 1039 (Md. 2002)) (emphasis added). Although applying Maryland state evidentiary rules, even the Court of Appeals of Maryland has acknowledged this month in *Rockkind v. Stevenson*, No. 76, SEPT. TERM, 2016, 2017 WL 2952984, at *7 (Md. July 11, 2017), a lead paint case, that “[w]ithout epidemiological studies—or other reliable evidence—demonstrating a *causal link*” between injury and exposure, expert testimony “ ‘amount[s] to no more than mere speculation and conjecture.’ ” (emphasis added) (quoting *Bentley v. Carroll*, 734 A.2d 697 (Md. 1999)). Regardless, as this Court has observed in *United States v. Horn*, 185 F. Supp. 2d 530, 553 (D. Md. 2002), “application of *Daubert/Kumho Tire* analysis results in the *exclusion of evidence that might otherwise have been admitted under Frye.*” (emphasis added).

As discussed *supra*, prevailing authority applying *Daubert* has rejected Plaintiffs’ experts’ “each and every exposure” causation theory. That theory is not the “product of reliable principles and methods,” as required by Rule 702(c) of the Federal Rules of Evidence, nor does it enjoy “general acceptance” within the “relevant scientific community,” *Bresler*, 855 F.3d at 195. Accordingly, Defendants’ Motions to Exclude Expert Testimony (ECF Nos. 161 & 162) are both GRANTED with respect to the “each and every exposure” theory.

III. *Georgia-Pacific’s Motion for Summary Judgment as to All Claims (ECF No. 159) is GRANTED*

As discussed *supra*, the only remaining counts against Defendants Union Carbide and Georgia-Pacific are Mr. Rockman’s claims of Strict Liability (Count One) and Negligence

(Count Three), along with the Rockmans' additional claim for Loss of Consortium (Count Seven). "In an action claiming both negligence and strict liability, the plaintiff bears the burden of proving that the defendant's tortious behavior was the proximate cause of the plaintiff's injury." *Wright v. Lead Indus. Ass'n, Inc.*, No. 1896 SEPT.TERM 1996, 1997 WL 34717752, at *2 (Md. Ct. Spec. App. Oct. 21, 1997) (citing *Owens-Illinois, Inc. v. Armstrong*, 604 A.2d 47 (Md. 1992), *cert. denied*, 506 U.S. 871 (1992)). As the United States Court of Appeals for the Fourth Circuit has explained in *Lohrmann v. Pittsburgh Corning Corp.*, 782 F.2d 1156, 1162 (4th Cir. 1986), "[t]o establish proximate causation in Maryland, the plaintiff must introduce evidence which allows the jury to reasonably conclude that it is more likely than not that the conduct of the defendant was a *substantial factor* in bringing about the result." *Robin Express Transfer, Inc. v. Canton R.R.*, 338 A.2d 335, 343 (Md. Ct. Spec. App. 1975).

As this Court has explained in *Sherin v. Crane-Houdaille, Inc.*, 47 F. Supp. 3d 280, 294 (D. Md. 2014), an individual like Mr. Rockman who "did not work directly with asbestos products" is considered a "bystander" under Maryland law. (citing *Eagle-Picher Indus., Inc. v. Balbos*, 604 A.2d 445, 460 (Md. 1992)). "Whether a bystander's exposure to asbestos products is legally sufficient to find substantial-factor causation is fact specific." *Sherin*, 47 F. Supp. 3d at 295 (citing *Balbos*, 604 A.2d at 460). The Court of Appeals of Maryland in *Eagle-Picher Indus., Inc. v. Balbos*, 604 A.2d 445 (Md. 1992) has announced a set of factors for courts to consider in assessing whether a Plaintiff has carried his burden of demonstrating substantial factor causation, the "*Balbos* Factors." The "[f]actors to consider include the frequency of the asbestos product's use, the regularity of a plaintiff's exposure, and the time and distance proximity of a plaintiff to the product's use." *Sherin*, 47 F. Supp. 3d at 295

(citing *Balbos*, 604 A.2d at 460)). The Court of Appeals of Maryland has made clear in *Georgia-Pac. Corp. v. Pransky*, 800 A.2d 722, 725 (Md. 2002) that evidence concerning medical causation must be considered in this analysis. For the reasons outlined *supra*, the causation testimony of Plaintiffs' experts, founded on the "each and every exposure" theory, including Dr. Abraham and Dr. Frank's "specific causation" opinions, have now been excluded. Plaintiffs' counsel acknowledged at this Court's July 6, 2017 hearing that the Plaintiffs cannot survive summary judgment without the testimony of Plaintiffs' experts as to causation. However, even if this Court were not to exclude the testimony of Plaintiffs' experts, summary judgment would still be granted for Defendants because Plaintiffs have failed as a matter of law to demonstrate "substantial factor" causation under the *Balbos* Factors.

With respect to Georgia-Pacific, Mr. Rockman has made clear that he never worked *directly* with "Ready Mix" joint compound. He has estimated that he only spent "50 to 60 percent of the time" in his apartment while the 1965 repairs were being made. Rockman Dep. Vol. II, pp. 257-58, ECF No. 159-4. As to the 1973 repairs, Mr. Rockman has indicated that he did not spend much time in the living room of his home, where the work was taking place, but rather studied for the Bar exam "in the back bedroom," coming out only "time to time." Rockman Dep. Vol. I, pp. 114, 116, 122, ECF No. 159-2. Mr. Rockman has likewise indicated that in 1976 he did not spend significant time in the room of his Broadmoor Road home where those repairs were taking place. *Id.* at 141-142; 158.

Each repair lasted, at most, several weeks. Mr. Rockman has estimated that the total length of the 1965 repair was "five or six weeks." *Id.* at 86. He has indicated that the 1973

apartment repairs lasted only “a week to ten days” and that the repairmen did not spend the full day working. *Id.* at 114. As to the work at Broadmoor Road in 1976, Mr. Rockman has stated that the first portion of the work, the ceiling repair, lasted one week and that the work in the dining room “was at least another week.” *Id.* at 147, 155. Additionally, as counsel for Union Carbide correctly noted at this Court’s July 6, 2017 hearing, the workmen hired by Mr. Rockman did not work with the Georgia-Pacific joint compound for the *entirety* of those time frames. Mr. Rockman’s estimates were for the entire projects, not solely the amount of time that the joint compound was applied and sanded. In fact, Mr. Rockman has specifically stated that the sanding of the joint compound during the 1973 project only took about “five to six hours total.” Rockman Dep. Vol. II, p. 264, ECF No. 159-4.

Although courts have held that a genuine issue of material fact existed as to “substantial factor” causation in similar bystander asbestos exposure cases, all of those cases are readily distinguishable from the uniquely limited exposures alleged by Mr. Rockman. This Court in *Sherin v. Crane-Houdaille, Inc.*, 47 F. Supp. 3d 280, 294–95 (D. Md. 2014), a recent case also involving alleged “bystander” exposure to Union Carbide *chrysotile* asbestos in a Georgia-Pacific product, denied Union Carbide’s motion for summary judgment on the grounds that “a jury could reasonably infer that Union Carbide’s asbestos fiber was a substantial factor” in causing mesothelioma. In that case, a homeowner alleged that his deceased wife had contracted mesothelioma as a result of exposure to asbestos fibers inhaled during the construction of their home and while washing her husband’s clothing, which he had worn to construction sites as a carpet salesman. *Id.* at 282-83. This Court denied Union Carbide’s motion for summary judgment in that case because the alleged exposures lasted

significantly longer than those reported by Mr. Rockman. The Sherins visited the construction site of their home, where asbestos-containing products were allegedly used, “every day for *almost one year*.” *Id.* at 283 (emphasis added). Additionally, Mr. Sherin visited “eight to ten construction sites each month,” where he saw asbestos-containing products being used, and that his wife washed his clothes “*for many years*.” *Id.* (emphasis added).

Similarly, the Court of Appeals of Maryland in *Georgia-Pac. Corp. v. Pransky*, 800 A.2d 722, 726 (Md. 2002) upheld a jury verdict for the plaintiff on the basis that there were sufficient facts in the record to find that a child’s *bystander exposure* to a Georgia-Pacific asbestos-containing product was a “substantial factor” in causing her mesothelioma. Like Mr. Rockman, the child did not use an asbestos-containing product. *Id.* at 723-24. However, unlike Mr. Rockman, the child was “*frequently* in the basement” where her father was using the product to “convert[] the unfinished basement into a recreation room.” *Id.* at 724 (emphasis added). Additionally, “[e]vidence was presented that the sanding [of the product] created a lot of dust, that [the child] was exposed to that dust when she was in the basement, and that the dust was picked up by the ventilation system and spread throughout the house.” *Id.* “Following completion of the work, [the child] played in the basement and was further exposed to dust occasionally emanating from the compound on the ceiling for about *another 10 years*, until she left the home to go to college.” *Id.* (emphasis added).

As the Fourth Circuit has explained in *Lohrmann*, 782 F.2d at 1162-63, “[t]o support a reasonable inference of substantial causation from circumstantial evidence there must be evidence of exposure to a specific product on a *regular basis* over some *extended period of time* in proximity to where the plaintiff actually worked.” Here, Mr. Rockman’s limited exposures

to Georgia-Pacific joint compound during three short-term home repair projects in 1965, 1973, and 1976 were not a “substantial factor” in his developing mesothelioma, as a matter of law. Plaintiffs have identified no case involving *bystander* asbestos exposures as limited in “frequency,” “regularity,” and “time and distance proximity” as Mr. Rockman’s alleged exposures in this case. Accordingly, Georgia-Pacific’s Motion for Summary Judgment as to All Claims (ECF No. 159) is GRANTED. Judgment shall be entered for Georgia-Pacific as to the remaining Counts One, Three, and Seven.

IV. *Union Carbide’s Motion for Summary Judgment as to All Claims (ECF No. 156) is GRANTED*

Mr. Rockman’s 1965, 1973, and 1976 home repair projects are equally insufficient to establish “substantial factor” causation with respect to Union Carbide. If Mr. Rockman’s limited exposures to the joint compound product were not a “substantial factor” in his development of mesothelioma as a matter of law, then his alleged exposure to Union Carbide Calidria *chrysotile* asbestos, a minor ingredient in that product, was also not a substantial factor. As Union Carbide did not even sell Calidria to Georgia-Pacific until 1970, only the alleged 1973 and 1976 exposures are at issue. *See* Schutte Dep., pp. 115-116, ECF No. 1970. With respect to those two exposures, Union Carbide Calidria asbestos made up less than 2% of the “Ready Mix” compound. When Georgia-Pacific used Calidria in its Ready Mix formula, the formula called for only 1.62% Calidria asbestos (SG210) and 3.92% Philip Carey-supplied asbestos (7RF9), for a total chrysotile asbestos content of 5.54%. *See* Ready Mix Formula, Milford, Virginia Plant, ECF No. 156-10.

Additionally, to the extent Plaintiffs are proceeding under a *failure to warn* theory, Union Carbide did not have a “duty to warn” as a matter of law. As this Court recently

observed in the *Sherin* case, “ [t]he existence of a legal duty is a question of law, to be decided by the court.’ ” *Sherin*, 47 F. Supp. 3d at 296 (quoting *Gourdine v. Crews*, 955 A.2d 769, 775 (Md. 2008)). A “crucial” factor in determining whether a duty to warn exists is “foreseeability of harm.” *Id.* (citing *Georgia Pac., LLC v. Farrar*, 69 A.3d 1028, 1033 (2013)). “Foreseeability of harm turns (1) on what ‘the supplier knew or had ‘reason to know’ ’ about the dangers of asbestos when the warning should have been given, and (2) whether ‘the defendant should have recognized’ that the plaintiff was ‘in a significant zone of danger.’ ” *Id.* (quoting *Farrar*, 69 A.3d at 1034). “There is no duty to warn, however, if the warning *cannot feasibly be implemented or have practical effect.*” *Id.* (citing *Farrar*, 69 A.3d at 1039 (trial court erred in finding a duty to warn in 1968–69 because “there was no practical way that any warning given by [the defendant] to any of the suggested intermediaries would or could have avoided that danger”)) (emphasis added).

In the *Shearin* case discussed *supra*, Union Carbide also moved for summary judgment as to Plaintiffs’ “failure to warn theory.” *Id.* at 295-96. Based on the evidence in the record, this Court concluded that “a jury could reasonably infer that Union Carbide had . . . ‘clear notice of the dangers of ‘take-home’ exposures’ before 1972.” *Id.* at 295. However, because “Mr. Sherin ha[d] not provided any evidence that better warnings by Union Carbide *would have altered* Mrs. Sherin’s take-home exposure,” this Court ultimately granted summary judgment for Union Carbide as to its duty to warn. *Id.* at 300. The Court specifically noted the attenuated chain of purchasers separating Union Carbide from Plaintiffs. “Union Carbide *sold asbestos to product manufacturers, which sold finished products to suppliers*; the suppliers

sold the products to contractors; these contractors used the products that exposed Mrs. Sherin to asbestos at the new home and on Mr. Sherin's clothing." *Id.* at 300, n. 53 (emphasis added).

Just as in the *Sherin* case, Mr. Rockman was at least four steps removed from Union Carbide in this case. Union Carbide allegedly sold its asbestos product to Georgia-Pacific, Georgia-Pacific sold its joint compound to suppliers or retailers, those suppliers sold the product to the workmen hired by Mr. Rockman, then Mr. Rockman allegedly contacted the product when it was used in his home. Union Carbide issued OSHA-compliant warnings to its customers, including Georgia-Pacific. *See* 1972 Warning, ECF No. 156-12. Additionally, its customers were sophisticated manufacturers of asbestos-containing products and are, accordingly, "held to the knowledge and skill of an expert" under Maryland law. *See Garlock, Inc. v. Gallagher*, 814 A.2d 1007, 1023 (Md. Ct. Spec. App. 2003) ("[A]ll manufacturers are held to the knowledge and skill of an expert.' . . . [T]he state of the art knowledge of one asbestos manufacturing company was attributable to a second company in the same business at the same time." (internal citation omitted)). As in the *Sherin* case, no evidence indicates that additional warnings by Union Carbide could have had a "practical effect" on preventing Mr. Rockman's alleged bystander exposures. *See Farrar*, 69 A.3d at 1039. For all of these reasons, Union Carbide's Motion for Summary Judgment as to All Claims (ECF No. 156) is also GRANTED. Judgment shall be entered for Union Carbide as to the remaining Counts One, Three, and Seven.

CONCLUSION

For these reasons, Defendants' Motions to Exclude Expert Testimony (ECF Nos. 161 & 162) are both GRANTED. The "specific causation" opinions of Plaintiffs' experts

Dr. Jerrold Abraham and Dr. Arthur Frank that Mr. Rockman's alleged exposures in 1965, 1973, and 1976 to Union Carbide Calidria *chrysotile* asbestos contained in Georgia-Pacific's "Ready Mix" joint compound "caused" or were a "substantial factor" in his developing peritoneal mesothelioma are excluded. Additionally, any testimony by Drs. Abraham or Frank or by Plaintiffs' expert Dr. Arnold Brody based on their underlying theory that "each and every" exposure to asbestos "cumulates" and should therefore be considered a cause of injury, regardless of the type of mesothelioma, the exposure "dose," or the type of asbestos, is also excluded. Plaintiffs' counsel acknowledged at this Court's July 6, 2017 hearing that the Plaintiffs cannot survive summary judgment without the causation testimony of their experts. Accordingly, Defendants' Motions for Summary Judgment (ECF Nos. 156 & 159) are also GRANTED as to the Rockmans' three remaining claims; alleging Strict Liability (Count One), Negligence (Count Three), and Loss of Consortium (Count Seven). Even if this Court were not to exclude the causation opinions of Plaintiffs' experts, summary judgment would still be granted for the Defendants for the reasons discussed herein. Therefore, Judgment shall be entered for Defendants as to the remaining Counts One, Three, and Seven against them.

A separate Order and Judgment follows.

Dated: July 17, 2017

_____/s/_____
Richard D. Bennett
United States District Judge