Weiss v. Albertsons Cos.

Superior Court of Arizona, Maricopa County June 20, 2023, Decided; June 20, 2023, Filed CV 2021-090946

Reporter 2023 Ariz. Super. LEXIS 204 *

JEFFREY WEISS, et al. v. ALBERTSONS COMPANIES INC, et al.

Core Terms

mesothelioma, talc, exposure, <u>asbestos</u>, products, talcum powder, levels, studies, <u>asbestos</u> exposure, cosmetic, testing, reliable, exposed, Declaration, chrysotile, powder, causation, cases, methodology, scientific, causes, disease, exposure to <u>asbestos</u>, users, <u>asbestos</u>-containing, samples, fibers, plaintiffs', miners, tremolite

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Judges: HONORABLE TIMOTHY J. THOMASON.

Opinion by: TIMOTHY J. THOMASON

Opinion

MINUTE ENTRY

DEFENDANTS' MOTIONS TO EXCLUDE

<u>Arizona Rule of Evidence 702</u> requires: 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 <u>Rule 702</u>, a plaintiff must prove by a preponderance of the evidence that the expert testimony he offers is admissible.

The Court's gatekeeping function is to ensure that expert opinions are based on reliable scientific evidence. Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 593 (1993). Under Daubert, the Court "must ensure that the expert 'employs in the courtroom the same level of intellectual rigor that characterizes the practice [*2] of an expert in the relevant field." Arizona State Hospital/Arizona Community Protection & Treatment Center v. Klein, 231 Ariz. 467, 473, ¶ 29 (App. 2013). The test for reliability is whether expert testimony is "supported by appropriate validation-i.e., good grounds, based on what is known." Daubert, 509 U.S. at 590. This requires an "assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue." Id. at 593. The Court should exclude "opinion evidence that is connected to existing data only by the ipse dixit of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered." Gen. Elec. Co. v. Joiner, 522 U.S. 136, 146 (1997). The Court has broad discretion to determine the reliability of expert testimony. State v. Favela, 234 Ariz. 433, 436, ¶ 11 (App. 2014).

MOTION TO EXCLUDE EXPERT EVIDENCE THAT TALC CAUSES MESOTHELIOMA

LEGAL STANDARD

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Defendant Whittaker Clark & Daniels, Inc. ("WCD")¹, Novartis Corporation ("Novartis")² and Charles B. Chrystal Company, Inc. ("Chrystal")³ have moved to exclude expert testimony that cosmetic talc causes mesothelioma ("Talc Motion"). Defendants Block Drug Company Inc. ("Block") and GSK Consumer Health Inc. ("GSK") joined in the Motion.⁴

The Court has considered the Motion, Joinder, Response and Reply, as well as the arguments of counsel. [*3] Defendant Shulton, Inc. ("Shulton") did not join in this Motion. Nonetheless, the matters raised in the briefing on this Motion are important to the Court's consideration of the Motions seeking to preclude the testimony of Dr. Longo and Dr. Moline and Shulton's Motion for Summary Judgment.⁵ As such, the Court provides the following comments on the Moton to Exclude Expert Evidence That Talc Causes Mesothelioma.

Plaintiff Jeffrey Weiss alleges he developed mesothelioma, as a result of exposure to <u>asbestos</u> allegedly present in various talcum powder products manufactured and sold by defendants.⁶ Mr. Weiss

states that he used various brands of talcum powder products from 1979 to 2011.

Defendants' Position

Defendants argue there is no scientifically reliable evidence linking talc products to the development of mesothelioma. Defendants seek to exclude all expert testimony claiming that cosmetic talc or talcum powder causes mesothelioma.

Plaintiffs do not claim that defendants added *asbestos* [*4] to their products. Rather, they assert that *asbestos* is an accessory mineral that may be naturally present in talc. Under Environmental Protection Agency ("EPA") standards, a product is not considered to be an *asbestos*-containing product unless it contains more than 1% *asbestos* by weight or volume. <u>40 CFR §</u> 763.163.⁷

Depending upon the geological conditions under which it was formed, talc may coexist with other accessory minerals, such as serpentine, quartz, and amphibole (non-asbestiform tremolite and anthophyllite). (See Talc Motion at 5, *citing* Van Gosen BS, Lowers H, A., et al., *Using the Geologic Setting of Talc Deposits as an Indicator of Amphibole* <u>Asbestos</u> Content. Berlin: Springer, 2004; IARC, IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Volume 93: Carbon Black, Titanium Dioxide, and Talc. Lyon, France: International Agency for Research on Cancer, 2010 ("IARC 2010")).⁸ Cosmetic talc consists of a minimum of 90% talc; the balance of which may include

CDC/ATSDR, <u>Asbestos</u> and Your Health, Overview, https://www.atsdr.cdc.gov/<u>asbestos</u>/overview.html (last viewed June 19, 2023). The CDC/ATSDR further states that "[e]xposure to either chrysotile or amphibole <u>asbestos</u> increases the risk of disease. However, amphiboles remain in the lung for a longer period of time. Exposure to amphiboles may result in a higher risk of developing mesothelioma than exposure to chrysotile." *Id.*

¹ On April 26, 2023, WCD filed a Chapter 11 Voluntary Petition for Bankruptcy in the United States Bankruptcy Court for the District of New Jersey. As such, on May 1, 2023, the Court entered an order staying this matter until October 29, 2023, as to WCD.

² Novartis has since settled with plaintiffs.

³ Chrystal was dismissed by stipulation on April 25, 2023.

⁴ In their Joinder, Block and GSK note that Block's Gold Bond Medicated Powder and GSK's Desenex product line are over the counter drug/medicated products, not cosmetics. Block and GSK assert that the arguments in the Motion apply equally to their drug/medicated products. Block and GSK have now settled their disputes with plaintiffs.

⁵ Shulton is named as a defendant due to its manufacturing and sale of Old Spice talcum powder. The issues discussed in this Motion are relevant to the claims against Shulton regarding the Old Spice powder.

⁶ According to the Center for Disease Control ("CDC")/ Agency for Toxic Substances and Disease Registry ("ATSDR"), the "legal definition of <u>asbestos</u> applies to six fibrous minerals in two general classes:

[•] Serpentine class: chrysotile (also known as white <u>asbestos</u>) • Amphibole class: amosite (brown <u>asbestos</u>), crocidolite (blue <u>asbestos</u>), anthophyllite, tremolite, and actinolite"

⁷ <u>40 C.F.R. § 763.163</u> states in part that "<u>Asbestos</u> means the asbestiform varieties of: chrysotile (serpentine); crocidolite (riebeckite); amosite (cummingtonite-grunerite); tremolite; anthophyllite; and actinolite. <u>Asbestos</u>-containing product means any product to which <u>asbestos</u> is deliberately added in any concentration or which contains more than 1.0 percent <u>asbestos</u> by weight or area."

⁸ IARC refers to the International Agency for Research on Cancer.

accessory minerals, such as calcite, chlorite, dolomite, kaolin, and magnesite, in various shapes and sizes, after milling. According to defendants, however, there is no detectable asbestiform minerals in talc. (See Talc Motion **[*5]** at 5, *citing* IARC 2010; Fiume MM, Boyer I, et al., *Safety Assessment of Talc as Used in Cosmetics*. Int J Toxicol 2015; 34:66S-129S). There is, according to the defense, certainly not 1% **asbestos** by weight or volume in talc. Therefore, cosmetic talc products are not considered to be **asbestos**-containing products under federal guidelines.

Defendants recognize that some scientists claim to have identified <u>asbestos</u> fibers in cosmetic talc powders. (See Talc Motion at 5, *citing* Gordon, et al., <u>Asbestos</u> in Commercial Cosmetic Talcum Powder as a Cause of Mesothelioma in Women. 20 International Journal of Occupational and Environmental Health 4, 318-332 (2014) ("Gordon 2014 Study")).⁹ According to defendants, the claim that certain "fibers" in talc are "<u>asbestos</u>" lacks general acceptance in the scientific community.

Even if some "fibers" in talc are considered to be "*asbestos*," the defense maintains that it has not been established that these accessory fibers, whether called *asbestos* or otherwise, cause mesothelioma. According to Dr. Kenneth Mundt, defense expert:

• There is no epidemiological evidence that use of cosmetic talc products increases the risk of mesothelioma. No epidemiological study [*6] has compared the rate of mesothelioma in users of cosmetic talc products with individuals who do not use cosmetic talc products. (See Mundt Report at ¶¶ 7-11).

• Epidemiological studies report that hairdressers and barbers (i.e., likely occupational users of cosmetic talc products) have no increased risk of mesothelioma. Two large studies suggested that persons employed as hairdressers and barbers were not at an increased risk of mesothelioma, unlike individuals in occupations exposing them to amphibole <u>asbestos</u>, such as plumbers, shipbuilders, and insulators. (See Mundt Report at ¶¶ 42-43, 82, 108).

• There is no increased risk of mesothelioma in patients receiving talc pleurodesis treatment.

• Talc pleurodesis is a medical procedure in which

talc is directly injected into the pleural space of the chest. No cases of mesothelioma have been reported in the few studies that followed patients for many years after receiving talc pleurodesis. (Mundt Report at \P 83).

 Epidemiological studies demonstrate that those who are most heavily exposed to talc (i.e., talc miners and millers) are not at increased risk of malignant mesothelioma and, in fact, have a slightly lower incidence of mesothelioma [*7] than the general population. Workers engaged in talc mining and processing historically have had the greatest occupational exposure to talc. Respirable dust counts obtained from mining operations routinely exceeded 1000 million particles per cubic foot prior to 1955 and were above 1 mppcf into the 1970s. No increased rate of mesothelioma, however, was observed in talc miners and processors. Studies of talc workers in Vermont, Norway, France, and Austria showed no cases of mesothelioma. (Mundt Report at ¶¶ 84-103).

• Even if negligible amounts of <u>asbestos</u> were present in talc products, it is not sufficient to cause mesothelioma. Although clinicians have hypothesized about the cause, there are no epidemiological studies linking cosmetic talc to mesothelioma. Other factors may increase the rate of mesothelioma, including erionite, ionizing radiation, tuberculosis, family history of cancer and genetic mutations. (Mundt Report at ¶¶ 28, 68-78, 106-107).

Plaintiffs' Position

Plaintiffs do not claim that talc causes mesothelioma. Rather, plaintiffs assert that the <u>asbestos</u> in talc causes mesothelioma. As such, plaintiffs claim they are not required to prove that talc causes mesothelioma.

According **[*8]** to plaintiffs, there is an abundance of evidence that cosmetic talc contains <u>asbestos</u>. Dr. Longo, plaintiffs' expert, opines that his testing demonstrates that users of cosmetic talc are exposed to <u>asbestos</u> at levels significantly higher than normal or "background" levels. (See discussion below).

Plaintiffs also claim that the link between <u>asbestos</u> and mesothelioma is clear, dating back more than 100 years. According to the Food and Drug Administration ("FDA"), inhalation of <u>asbestos</u> from any source is a safety concern, because it may lead to lung cancers and

⁹ The Gordon 2014 Study involved a product called Cashmere Bouquet, which was not a product used by Mr. Weiss.

mesothelioma.¹⁰ In 2017, the CDC recognized that "[m]alignant mesothelioma can develop after short-term **asbestos** exposures of only a few weeks, and from very low levels of exposure. There is no evidence of a threshold level below which there is no risk for mesothelioma. The risk for mesothelioma increases with intensity and duration of **asbestos** exposure." (Plaintiffs' Ex. 4, *Malignant Mesothelioma Mortality - United States, 1999-2015*, Morbidity and Mortality Weekly Report at 217 fn. ¶¶ (2017).

Plaintiffs claim that "[c]osmetic talc has **[*9]** been analyzed by researchers in various countries and has routinely been shown to contain <u>asbestos</u>." Plaintiffs cite numerous studies, which they claim show that <u>asbestos</u> has been found in talc. The studies that allegedly demonstrate that include the following:

- In 1935, <u>asbestos</u> was identified as a source of exposure in talc miners and millers.
- In 1947, pneumoconiosis was noted in a man exposed to cosmetic talc.
- In the 1950s, elevated rates of mesothelioma and lung cancer were seen in miners at <u>asbestos</u> contaminated talc mines.
- In 1957, researchers reported finding tremolite in Italian talc used by manufacturers, including Old Spice and Mennen.
- In 1968, Johns-Manville documented fibrous tremolite <u>asbestos</u> in consumer cosmetic talcum

powder products, including Old Spice, Cashmere Bouquet, and Friendship Garden.

• By 1968, Dr. Cralley described <u>asbestos</u> in consumer cosmetic talc products and, by 1972, the cosmetic industry was looking for <u>asbestos</u>-free alternatives to cosmetic talc.

• In 1972, Snider and others reported finding <u>asbestos</u> in several consumer cosmetic talcum powder products, including Mennen Talc and Mennen Baby Magic. That same year, Dr. Lewin reported finding <u>asbestos</u> [*10] in Old Spice, Mennen, and Cashmere Bouquet. The University of Minnesota found <u>asbestos</u> in Johnson's Baby Powder manufactured with the same Italian talc used to manufacture Old Spice and Mennen talc products.

• In 1973, Dr. Lewin reported finding tremolite and chrysotile in a sample of Clubman talc.

• In 1974, Dr. Rohl, and in 1976, Drs. Rohl and Langer, tested 20 consumer talc or talcum powder products. Ten of the 20 products tested were found to contain tremolite and anthophyllite, principally asbestiform. The product that had the highest **asbestos** content was Cashmere Bouquet.

• In 1981, Drs. Churg and Warnock proposed that cosmetic talc was the source of the tremolite/anthophyllite in women's lung tissue.

• In 1984, the Mine Safety and Health Administration ("MSHA") monitored mill workers where Italian talc used in consumer products was ground. The filters from these workers contained 5.8% anthophyllite, which comprised 0.6% of the bulk Italian talc.

• In 1989, Dr. Roggli found tremolite/anthophyllite in women's lung tissue and hypothesized the source to be cosmetic talc.

• In 1992, the U.S. EPA cited epidemiological studies which concluded that miners and millers have an increased risk [*11] of developing <u>asbestos</u>-related diseases.

• In 1997, McDonald attributed the finding of tremolite in lung tissue of a chrysotile worker to his prior work exposure to talc while working as a barber.

• In 2007, Mattenklott and others found that small amounts of talcum powder (0.1 gram) released

¹⁰ The FDA has recognized that "[s]ome talc deposits may also contain asbestos and other magnesium silicate minerals, notably members of the amphibole group. Asbestos is a term used to describe some silicate minerals that have an unusual fibrous (asbestiform) habit of crystal growth. ... [A]sbestos is a known human carcinogen, and its health risks are welldocumented. Asbestos exposure can cause seguelae ranging from inflammation to pleural disease, lung cancers, and malignant mesothelioma." (Plaintiffs' Ex. 3, FDA December 2021 White Paper: IWGACP Scientific Opinions On Testing Methods For Asbestos In Cosmetic Products Containing Talc, at 009). The FDA further stated that "[t]here is general agreement among U.S. federal agencies, most developed nations, and the World Health Organization (WHO) that there is no established threshold for adverse health effects from asbestos exposure. Following exposure by inhalation or ingestion, asbestos can cause sequelae ranging from inflammation to pleural disease, lung cancer, and mesothelioma. These effects rarely occur acutely, but more often occur many months or years following exposure." (Id. at 014).

[•] In 2002, Dr. Roggli found five mesotheliomas with anthophyllite and tremolite in the lung tissue that reportedly came from talc.

significant amounts of *asbestos* fibers.

• In the Gordon 2014 Study, Dr. Gordon and others evaluated the mineralogical constituents of Cashmere Bouquet and its ability to release **asbestos** fibers into the breathing zone of the direct users and bystanders. They noted that the talc in Cashmere Bouquet was derived from three distinct regions (Italy, North Carolina, Montana) where anthophyllite and tremolite **asbestos** were found. They measured 18 million anthophyllite **asbestos** fibers per gram in the talcum powder.

• In 2015, Ilgren and others attributed the increased rate of mesothelioma in the chrysotile miners in Italy to the tremolite <u>asbestos</u> in the talc in the adjacent mining region.

• In 2018, Dr. Saldivar identified chrysotile <u>asbestos</u> in his analysis of Johnson's Baby Powder [*12] from a 2018 lot of talc manufactured using the Supra H Guangxi Chinese talc.

• In 2020, Dr. Jacqueline Moline, plaintiffs' expert, published a case series of 33 mesotheliomas with talcum powder usage as the only alleged source of **asbestos** exposure for all 33 cases ("2020 case series"). Tissue digestion for six of the 33 cases was described in detail. The tissue fiber burdens revealed the presence of talc and **asbestos** fibers (anthophyllite, tremolite, and/or chrysotile), typical of contaminants found in cosmetic talcum powder.

• In 2020, Drs. Emory, Maddox and Kradin published an article entitled, *Malignant Mesothelioma Following Repeated Exposures to Cosmetic Talc: A Case Series of 75 Patients*, in the American Journal of Industrial Medicine. ("Emory"). Talcum powder usage was the only identifiable source of <u>asbestos</u> exposure for all 75 cases. Tissue fiber analysis revealed the presence of fibers consistent with talc and <u>asbestos</u> fibers.

• In May 2022, the CDC recognized in the Morbidity and Mortality Weekly Report that occupations, such as hairdressers and barbers, that heavily use talcum powder, have been associated with an increased rate of mesothelioma deaths among women aged 25 years [*13] or greater in the United States.

• In 2023, Dr. Moline published a case series of 166 mesotheliomas with talcum powder usage as the purported exclusive source of exposure in 122 cases and 44 additional cases with potential or

documented additional exposures ("Moline 2023").

Dr. Moline has opined that various studies demonstrate that numerous individuals with exposure to <u>asbestos</u>containing talc products have developed malignant mesothelioma. Dr. Moline is plaintiffs' causation expert in this case. Dr. Moline opines that <u>asbestos</u> in cosmetic talc does cause mesothelioma and that it caused Mr. Weiss's mesothelioma.

Plaintiffs assert that epidemiology studies involving talc mines are irrelevant. The studies involving European talc mines in Norway, France and Austria are not at issue because there is no evidence that products sourced from those mines were used by Mr. Weiss.

Finally, plaintiffs argue that other causes of mesothelioma, such as erionite, ionizing radiation, tuberculosis, family history of cancer and genetic mutations, are irrelevant because there is no evidence of these conditions are present in Mr. Weiss' case. There is allegedly no evidence of an alternative cause of Mr. Weiss' [*14] mesothelioma.

Discussion

Plaintiffs have cited more than 20 studies, articles and reports which purport to show that <u>asbestos</u> is present in talc products, and that the <u>asbestos</u> in talc products is linked to mesothelioma. Many of the cited papers only ostensibly reported <u>asbestos</u> in talcum powder and did not directly address the issue of whether the <u>asbestos</u> in talcum powder causes mesothelioma. Moreover, some of the papers that did address causation were case reports or case series, not controlled studies, that were anecdotal in nature. There is not a definitive, peer reviewed, study that scientifically established that <u>asbestos</u> in cosmetic talc products plays a significant role in the development of mesothelioma.¹¹

Plaintiffs have not refuted defendants' assertion that there is no study comparing the rate of mesothelioma in users of talcum powder with those who do not use such products. Dr. Moline's case series and the Emory case series examined only subjects with a mesothelioma diagnosis and concluded that talcum powder use was the only identifiable source of <u>asbestos</u>. These were

¹¹ Indeed, as discussed below, at the <u>Daubert</u> hearing, Dr. Moline acknowledged that there is no epidemiological study establishing a link between <u>**asbestos**</u> in talc products and mesothelioma.

not controlled scientific studies of disease causation.

The evidence supporting the notion that <u>asbestos</u> in [*15] cosmetic talc causes mesothelioma is very thin. Dr. Moline is presumably plaintiffs' causation expert.¹² In order for plaintiffs to be able to establish a prima facie case, Dr. Moline's testimony will have to be admissible under <u>Rule 702 of the Arizona Rules of Evidence</u>. If Dr. Moline's testimony is found inadmissible, then plaintiffs will not be able to establish a prima facie case. As such, the salient question is whether Dr. Moline's testimony is admissible. (See discussion below). While the Court will not make a specific ruling on the Motion to exclude any opinion that <u>asbestos</u> in talcum powder causes mesothelioma, the Court will consider the material referenced in the briefing in considering the admissibility of Dr. Moline's testimony.

MOTION TO EXCLUDE DR. WILLIAM LONGO

Shulton has moved to exclude the testimony of Dr. William Longo, Ph.D. The Motion was joined by defendants WCD, Novartis, Block, GSK, Chrystal, The Procter & Gamble Company ("Procter & Gamble"), Wyeth Holding LLC ("Wyeth"), Noxell Corporation ("Noxell") and Coty Inc. ("Coty"). The Court has considered the Motion, Joinders, Response and Reply.

Dr. Longo is a materials scientist and the CEO of Materials Analytical Services, LLC ("MAS"). MAS is a laboratory accredited [*16] by the American Industrial Hygiene Association ("AIHA"). MAS is also certified by the International Organization for Standardization ("ISO"). To date, MAS is the only laboratory accredited the American Association for by Laboratory Accreditation ("A2LA"), on behalf of ISO, for analysis of asbestos in cosmetic talc products by polarized light microscopy ("PLM") (ISO 22262-1) and transmission electron microscopy ("TEM") (ISO 22262-2). MAS is also a registered FDA laboratory. MAS is no longer accredited by the National Voluntary Accreditation Program ("NVLAP"), a nationwide entity which audits laboratories regarding testing of materials for the presence of asbestos.

Dr. Longo's opinions are set out in a Declaration dated June 21, 2022 ("Longo Declaration"). Dr. Longo opines that, based on testing of talc ore used to manufacture certain brands of talc products, as well as the testing of finished talc products, individuals who used Johnson's Baby Powder, Gold Bond, Old Spice, Mennen, and Clubman talc products have been exposed to fibrous amphibole and chrysotile <u>asbestos</u>. Dr. Longo states that individuals who regularly and consistently used those specific products would have been exposed [*17] to <u>asbestos</u> substantially above background or ambient levels.

Defendants' Position

Dr. Longo has only tested cosmetic talc for purposes of litigation and only began doing so in 2017, after being contacted by plaintiffs' counsel in <u>asbestos</u> litigation. Defendants are critical of the methodology recently developed by Dr. Longo for testing of talcum powder products for chrysotile <u>asbestos</u>. Defendants claim that Dr. Longo's methodology is not reliable and has not gained general acceptance in the scientific community. Shulton seeks to preclude Dr. Longo from testifying (1) regarding his chrysotile methodology and findings and (2) that Mr. Weiss's use of defendants' talcum powder caused him to be exposed to <u>asbestos</u> at levels above background.

Dr. Longo's Methodology

Dr. Longo states that he followed the "generally accepted published method specific to cosmetic talc":

- ISO 22262-1 and 2 for PLM and TEM; and
- heavy liquid preparation techniques developed by the Colorado School of Mines ("CSM") and Dr. Alice Blount ("Blount").

(Longo Declaration at ¶ 12). Defendants claim that, in a previous case, Dr. Longo testified that the ISO 22262-1 for PLM methodology was unreliable for detection of trace [*18] amounts of <u>asbestos</u> in talcum powder.¹³

¹² Plaintiffs could decide to use Dr. Maddox as their causation expert. (Under Arizona Rule 26(b)(4)(F) only one expert may be called at trial on an issue.) As set forth in the summary judgment ruling below, Dr. Maddox has provided no reliable opinion that the use of Old Spice talcum powder, or any other talcum powder at issue here, caused Mr. Weiss' mesothelioma.

¹³ In that prior deposition, Dr. Longo testified:

Q. Okay. Now, if we take a look at 4.6. They go on to state in ISO 22262-1 that, "For all varieties of amphibole <u>asbestos</u> and most varieties of chrysotile, a large proportion of the mass compromises fibers that exceed this width and because of this, <u>asbestos</u> can be reliably detected by PLM." Correct?

He stated in deposition in that case that the PLM method in ISO 22262-1 "cannot be used for the talc analysis at the concentrations we're dealing with here."¹⁴ According to defendants, the methods Dr. Longo previously claimed were unreliable are now being improperly used to find "chrysotile" in all talcum powders.

Defendants argue that Dr. Longo's findings and opinions are based on an unpublished methodology of his own creation that has not been peer-reviewed or approved by any outside agency or laboratory. **[*19]** Using his own method, Dr. Longo claims to have found chrysotile in Old Spice talcum product. In prior testing, however, he allegedly found none.

Defendants claim that Dr. Longo did not follow ISO 22262-1. Dr. Longo attempts to excuse his failure to follow ISO 22262-1 by labeling his current procedure a "modification" to ISO 22262-1 that does "not alter the ISO 22262-1 method for identifying and quantifying **asbestos** in a talc sample." (*Id.* at ¶ 22). Defendants claim that this assertion is simply untrue and, if admitted, would confuse the jury.

Defendants also contend that Dr. Longo disregarded ISO standards for the appearance of chrysotile when examined under PLM. Dr. Longo identified the "chrysotile" he found in all talc as a unique form of chrysotile called "Calidria." (*See Id.* at ¶¶ 21-23). Defendants claim that the Dr. Longo's Calidria standard originated in his lab and has not been published in peerreviewed literature. Dr. Longo claims that this is a "simple standard," but admits that no other entity outside of his lab has affirmed his lab's chrysotile

A. That's what it states.

Q. And you don't agree with that?

A. No, that's absolutely wrong for these types of trace amounts of material in these samples, you will not see this by PLM.

(Shulton Ex. F, March 20, 2018 Deposition in *Lois Prokocimer, et al. v. Avon Products, Inc.*, at 287:24 - 288:11).

¹⁴ The context of Dr. Longo's testimony in the prior deposition is not clear. Later in the deposition, he testified:

Q. Now, does the ISO standard 22262-2 indicate, as you said earlier, that when analyzing talc for <u>asbestos</u> you can use either PLM, TEM, or SEM; correct?

THE WITNESS: Correct.

(Shulton Ex. F at 289:20-25).

standard.

Specifically concerning Old Spice products, Dr. Longo admits that he has seen no other studies finding chrysotile in the **[*20]** same ranges he claims to have found. Dr. Longo has done no chrysotile source testing of talc mines in North Carolina, the source of the talc used in Old Spice. He cites no literature or other source of information indicating the standard for refractive indices or wavelengths for chrysotile originating from North Carolina.

Defendants also claim that Dr. Longo failed to verify his chrysotile findings by TEM. ISO 22262-1 provides estimates and the "accuracy and reproducibility" of its quantifications of <u>asbestos</u> content "is very limited." According to defendants, the accepted protocol requires that, when <u>asbestos</u> is detected in ranges between 0% and 5%, "it is necessary to make critical decisions of the basis of the results" using "a quantitative method", such as ISO 22262-2. (Motion to Exclude Longo at 7).

Dr. Longo did not use ISO 22262-2 (TEM), which is designed for lower concentrations. TEM is the "optimum analytical procedure" for determining chrysotile in talc. (*Id.*). Dr. Longo did not find chrysotile by TEM analysis in defendants' talcum powder products. Defendants claim that this failure renders Dr. Longo's conclusions unreliable.

Testing of Old Spice for Asbestos

Shulton argues that **[*21]** Dr. Longo should be precluded from testifying that Old Spice caused Mr. Weiss to be exposed to <u>asbestos</u> at levels above background. Dr. Longo's opinions in this regard are allegedly unreliable. He relies on batch testing. Longo does not claim to have found <u>asbestos</u> in every container of Old Spice. He did no testing of Old Spice containers used by Mr. Weiss.¹⁵ As such, Shulton submits that there is no basis for him testifying that <u>asbestos</u> was present in any container of Old Spice used by Mr. Weiss.

Dr. Longo's laboratory tested 36 samples from 24 containers of Old Spice talc powder products. (Longo Declaration at \P 42). Dr. Longo tested a single container of Old Spice talc powder from 1987-1988 vintage. (*Id.* at

¹⁵ Since Weiss discontinued using Old Spice in the early 1990s, the containers he used are, of course not available for testing.

¶ 47). He reported that chrysotile <u>asbestos</u> was found in that container at a concentration of 1.6 to 2.5 percent. (*Id.*).¹⁶

In exhibit 14 to his Declaration, Dr. Longo indicated that two of the samples tested were of a 1966 vintage, more than a decade before Mr. Weiss began using Old Spice. (See Longo Declaration at Ex. 14). Exhibit 15 is a "Corrected Shulton Product List." Exhibit 15 to his Declaration indicates that three samples were from approximately 1966-1967, and one sample [*22] was from 1940. Another sample was from Canada from approximately 1973. One other sample, from approximately 1997, came from Australia and New Zealand. Exhibits 14 and 15 to Dr. Longo's Declaration do not state the vintage of the other Old Spice talc products Dr. Longo or his lab purportedly tested. With the exception of the 1987/1988 sample, there is no evidence Dr. Longo tested any other Old Spice talcum powder product sold in the U.S. during the time Mr. Weiss used the product.

Dr. Longo concluded that his lab identified regulated <u>asbestos</u> in 28 of 36 (78%) samples of the Old Spice powder products. (Longo Declaration at ¶ 49). Of the samples tested for chrysotile, Dr. Longo and his colleagues identified regulated chrysotile <u>asbestos</u> in 20 of 20 samples. (*Id.*).

According to Shulton, there are no studies showing that use of Old Spice talcum powder exposes the user to <u>asbestos</u> at levels above background. Shulton contends that Dr. Longo's conclusions are very unreliable. Indeed, he provides no specific exposure calculations.

Dr. Longo's lab conducted only a below the waist shaker application test using Johnson's Baby Powder to "determine whether airborne <u>asbestos</u> amphibole fiber exposure [*23] an individual would experience during application of talcum powder." (*Id.* at ¶ 50). The application procedure used in the test was based on testimony of a plaintiff in another lawsuit, which Dr. Longo concluded was consistent with the way Mr. Weiss used talcum powder. (*Id.*).

Dr. Longo did not perform a shaker powder application

test on Old Spice. He claims that Old Spice used the same Italian talc used in Johnson's Baby Powder. (*Id.*). His statement that Old Spice talc came from Italian mines appears to be incorrect.¹⁷

Dr. Longo stated that the shaker test results and "similar representative data" show that "an individual who used talcum powder products with a shaker application can have a significant exposure to airborne amphibole **asbestos** fibers." (*Id.* at ¶ 52). He further stated that the "magnitude of the **asbestos** fiber exposure levels will depend on the concentration level of the **asbestos** in the talcum powder products (e.g., as the concentration of **asbestos** in the product increase, the greater the concentration will be of the respirable airborne fibers)." (*Id.* Dr. Longo said that he tested the container of an Italian talc vintage that had been found to contain "the highest concentration [*24] of tremolite **asbestos**" to find the "worst case scenario" exposure assessment. (*Id.* at ¶ 50 fn.24).

Dr. Longo claims that, despite the different source of talc in the products, his shaker test results are "applicable to any <u>asbestos</u>-containing talcum powder product used in a substantially similar manner." (*Id.* at ¶ 52). He concluded that the levels Mr. Weiss was exposed to "substantially exceed background exposure levels reported in the literature." (*Id.*).

Shulton claims that there is no reliable basis for Dr. Longo's conclusion that Weiss' use of Old Spice exposed him to <u>asbestos</u> at levels above background. Shulton argues that Dr. Longo's study of a Johnson & Johnson product has no application to the Old Spice product used by Weiss. According to Shulton, Dr. Longo provided no evidence that the application of Old Spice released respirable <u>asbestos</u>. Dr. Longo provided no data as to the exposure levels of <u>asbestos</u> from the application of Old Spice. Rather, he improperly relied on the foregoing "Shaker Powder Application" study of a Johnson & Johnson product, unrelated to Shulton's Old Spice product. Thus, according to Shulton, there is no scientific basis for Dr. Longo's conclusion that [*25] the

¹⁶ Dr. Longo's Declaration only reported the concentration levels from the 1987/1988 Old Spice container. His Declaration did not report on the concentration levels of **asbestos** found in the other Old Spice samples purportedly tested.

¹⁷ Later in his Declaration, Dr. Longo stated that the talc in Old Spice was sourced from a mine in North Carolina. (Longo Declaration at ¶ 92). According to plaintiffs, the talc used in Old Spice was supplied by WCD and was sourced from North Carolina mines from 1979 to 1992. (Plaintiffs' Statement of Facts in Opposition to Shulton's Motion for Summary Judgment ("Plaintiffs' SOF") at ¶ 19). WCD also supplied Shulton with Italian talc, which was more expensive and was used in higher-end product lines, not Old Spice. (*Id.* at ¶ 20).

application of Old Spice exposed Weiss to <u>asbestos</u> at levels above background.

Plaintiffs' Position

Plaintiffs submit that defendants claim only that Dr. Longo's testing methodology for identifying chrysotile **asbestos** in talcum powder is novel. Plaintiffs and Dr. Longo, however, submit that Dr. Longo has simply modified generally accepted methodologies, which provide reliable results.

Dr. Longo's Qualifications

Plaintiffs assert that Dr. Longo is a highly qualified minerals expert. For more than 30 years, he has studied the content, type, and release of <u>asbestos</u> fibers from <u>asbestos</u>-containing products, including talc. In 33 years, he and his lab have analyzed more than 400,000 individual <u>asbestos</u> samples, including thousands of air samples.

MAS is accredited by the AIHA for measurement of <u>asbestos</u> fibers by phase contrast microscopy and for the analysis of bulk samples of <u>asbestos</u>. MAS is also certified by the ISO for measurement of bulk samples and air samples of <u>asbestos</u>. MAS is the only lab in the country accredited by the A2LAfor analysis of <u>asbestos</u> in cosmetic talc products by PLM (ISO 22262-1) and TEM (ISO 22262-2).

Plaintiffs assert that it is insignificant that MAS is no longer **[*26]** accredited by the NVLAP, because NVLAP deals with air sampling. MAS does not do that type of testing; therefore, it dropped the NVLAP certification. According to Dr. Longo, A2LA certification is just as stringent and relates to the work MAS performs.

Dr. Longo helped develop the EPA's protocol for taking and analyzing settled <u>asbestos</u> dust samples. He was also responsible for writing the <u>asbestos</u> dust analysis standards for the American Society for the Testing of Materials. Dr. Longo has published more than 45-peer reviewed articles, the majority of which are on <u>asbestos</u> analysis.

Dr. Longo has been qualified to testify as an expert in state and federal courts, including in cases involving *asbestos* in talc and talcum powder products. He has testified as an expert in more than 35 cases, in at least 12 jurisdictions. Dr. Longo's opinions regarding the methods for identification and quantification of *asbestos*

in cosmetic talcum powder were found admissible in *Ingham v. Johnson & Johnson, 608 S.W.3d 663 (Mo. App. 2020)* (Johnson & Johnson baby powder), and *Leavitt v. Johnson & Johnson, No. A157572, 2021 WL 3418410, at *6 (Cal. App. Aug. 5, 2021), review denied* (Nov. 10, 2021) (Johnson & Johnson baby powder).

Dr. Longo's Methodology

Dr. Longo uses ISO protocol 22260-1 to analyze and identify chrysotile in talc. According to plaintiffs, this **[*27]** method was introduced in July 2012, and is a peer-reviewed, published methodology that is generally accepted in the scientific community.

According to Dr. Longo, his "modification" to the 22260-1 protocol was appropriate for detection of <u>asbestos</u> in talc. Section 6 of ISO 22262-1 allows for the removal of a large portion of the non-<u>asbestos</u> material prior to microscopic examination. This method allows for detection of <u>asbestos</u> at "trace" levels (below 0.1%) in cosmetic talc. (Longo Declaration at ¶ 13). Dr. Longo analogizes his approach to a "needle-in-a-haystack." When looking for a needle in a haystack, "if you get rid of most of the haystack, the needles are easier to find." (Response at 6).

Dr. Longo used the 1973 heavy liquid preparation technique developed by CSM to prepare talc samples for analysis by PLM ("CSM PLM"). (Longo Declaration at \P 20). The technique was developed by CSM as "a sample preparation procedure for detecting both chrysotile and amphibole" <u>asbestos</u> in talc. (Response at 6). Dr. Longo used the CSM PLM preparation technique to prepare talc samples for analysis.

Dr. Longo added heavy liquid specific for finding chrysotile to the talc. The talc was centrifuged for 24 hours, resulting in [*28] a separation of the chrysotile from the talc. (Longo Declaration at \P 25). Using this technique, Dr. Longo found chrysotile in the talc.

Plaintiffs argue that Dr. Longo's use of a preparation technique is not novel or unique. Dr. Longo's lab implemented the CSM PLM preparation technique in January 2020. Preparation techniques to minimize interference are, according to plaintiffs, not unusual and have been used for some time.

Dr. Longo claims that the FDA and other experts use heavy liquids as a preparation technique. According to Dr. Longo "[t]he use of heavy liquid separation for separating minerals of different density has been discussed in academic and industrial circles since the 1800s. Many of the heavy liquid solutions used in today's laboratories were developed in the late 1800s and early 1900s." (Response at 7).

According to Dr. Longo, two of the defense experts agree that ISO 22262-1, and use of heavy liquid separation, are generally accepted. For example, Dr. Longo claims that Shulton's expert, Dr. Lee Poye, uses "a whole battery" of concentration preparation techniques and used heavy liquid density separation of chrysotile. (Longo Declaration at ¶ 27). Dr. Longo also claims [*29] that defense expert, Dr. Alan Segrave, agreed that the use of heavy liquid density separation is a preparation technique used to improve the analyst's ability to analyze a sample of talc for <u>asbestos</u>. (*Id.* at ¶ 29). Dr. Segrave was familiar with ISO 22262-1 and 2 and has used the density separation technique. (*Id.*).

Dr. Longo claims that the CSM preparation technique is part of the ISO 22262-1 method that has been validated and reproduced. He further claims that the NIST (National Institutes of Standard and Technology) standards for chrysotile **asbestos** are limited, as those standards take into account optical properties of chrysotile from only three regions. (Response at 9). Those standards also rely on characteristics of **asbestos**-added products. According to Dr. Longo, when analyzing Calidria chrysotile in talc, "[w]e get the exact same colors" and "the refractive indices are only a few thousandths of a point off." (*Id.* at 10).

Shulton criticizes Dr. Longo for not doing a TEM (ISO 22262-2) analysis. Dr. Longo asserts, however, that, when <u>asbestos</u> is found by PLM, TEM (ISO 222262-2) analysis is not necessary. Dr. Longo claims his lab does "more work," and confirms its findings by SEM [*30] (scanning electron microscopy) and EDXA or EDS (electron diffraction analytical data). (Longo Declaration at ¶ 53). Further, according to Dr. Longo, the FDA does not require TEM when <u>asbestos</u> is found by PLM.

Dr. Longo asserts that he and his lab have performed over 200 exposure simulations involving the measurement of airborne <u>asbestos</u> fibers from <u>asbestos</u>-containing products. (*Id.* at ¶¶ 4-5).¹⁸ He claims that he relied on peer-reviewed publications and NIOSH methodology to determine if detectable **asbestos** fibers from the typical uses of **asbestos**containing products are released into the breathing zone of the user and immediately surrounding area. (*Id.*).

Plaintiffs also contend that "Dr. Longo quantified the exposure to <u>asbestos</u>-containing talc based on sufficient, relevant, reliable and peer-reviewed published data and applied his findings to the facts of this case." (Response at 16). Plaintiffs assert that Dr. Longo's "exposure opinions" are sufficiently reliable and that issues regarding the "correctness" of those opinions go to the weight of the evidence, not admissibility.

Discussion

Dr. Longo is an eminently qualified minerals expert. His lab, MAS, is accredited by the AIHA and A2LA **[*31]** and certified with ISO.

Defendants complain primarily about Dr. Longo's methodology. They claim that Dr. Longo's methodology has no general acceptance in the scientific community. Defendants assert that Longo came up with his own methodology, that was intended to be used in litigation to find <u>asbestos</u> in cosmetic talcum powder products. Defendants specifically claim that Dr. Longo modified ISO 22262-1 in a manner that ensured the detection of <u>asbestos</u> in talcum powder.

Dr. Longo explained, however, that he used a sample preparation technique authorized under ISO 22262-1. He claims that the heavy liquid technique he used is generally accepted by the CSM as a reliable preparation technique. According to Dr. Longo, when <u>asbestos</u> is found by PLM, following standard preparation techniques, ISO 22262-2 is not necessary.

The Court finds that Dr. Longo's techniques are sufficiently reliable to be admissible in evidence. The ISO 22262-1 methodology has sufficient acceptance and reliability to be admissible. The heavy liquid technique also has sufficient reliability. Indeed, defense experts appear to have acknowledged that this technique is generally appropriate.

There certainly are legitimate criticisms **[*32]** of Dr. Longo and his methodology. The criticisms of Dr. Longo's methodology, however, are areas for cross examination and do not rise to the level of rendering his

¹⁸ Dr. Longo touts his 200 plus "work practice simulations." These simulations, however, involved products designed to contain <u>asbestos</u>, such as cable hole covers, cement pipes, industrial gaskets, brakes, and joint compounds. (Longo Declaration at ¶ 4-5). These work practice simulations have no relevance to the application of talcum powder for a minute or

two each day.

opinions inadmissible.

For example, Dr. Longo's prior assertion that ISO 22262-1 is unreliable, and defendants' claim that Longo's "modification" of ISO 22262-1 was developed for the purpose of formulating opinions in talcum powder litigation, are areas for cross examination. Similarly, the defense claim that 22262-2 should have been used is an area for cross examination.

Dr. Longo analyzed historic samples of various talc products. He did not test the products Mr. Weiss actually used. Of course, the specific products that Mr. Weiss used are no longer available. This is not a basis for excluding Dr. Longo's opinions altogether. Rather, this is an area for cross examination at trial.

Dr. Longo also only tested for <u>asbestos</u> in one known sample of Old Spice produced and sold in the United States during the time Weiss used the product. Many of the other Old Spice samples that were tested were from prior time periods, before Mr. Weiss started using Old Spice.¹⁹ Dr. Longo detected <u>asbestos</u> in the sample from the time period when Mr. [*33] Weiss used Old Spice. While Dr. Longo could be subject to criticism for not testing additional samples during the operative time that Weiss was using Old Spice, this is not grounds for exclusion. This is also a potential area for cross.

Dr. Longo has, however, provided no reliable information on the levels of <u>asbestos</u> exposure that Mr. Weiss was subjected to, as a result of the use of Old Spice, or any other product in this case, for that matter. Dr. Longo did no testing on Old Spice to determine the level of <u>asbestos</u> exposure a regular user of Old Spice talcum powder, such as Mr. Weiss, would be subjected to.

Dr. Longo has not demonstrated that his shaker testing done on a Johnson & Johnson product is a reliable manner to assess the exposure levels caused by Weiss' use of Old Spice.²⁰ Indeed, Dr. Longo did no analysis of Mr. Weiss' application habits. Dr. Longo's shaker testing on another individual, using a different product, has no reliable application here. Indeed, the shaker testing done was conducted on Italian talc that contains "the highest concentration of tremolite <u>asbestos</u>." Dr. Longo admittedly tested on the "worst case scenario." (Longo Declaration at ¶ 50 fn.24). No showing **[*34]** has been made that this "worst case scenario" reliably reflects the levels of <u>asbestos</u> exposure caused by Mr. Weiss' use of Old Spice, or any other product used by Mr. Weiss.

Dr. Longo has failed to demonstrate that that he has any reliable basis for assessing Mr. Weiss' exposure to asbestos allegedly caused by Old Spice, or any other product used by Weiss. Dr. Longo admitted that "(t)he magnitude of the fiber exposure levels will depend on the concentration level of the asbestos in the talcum powder products..." (Id. at ¶ 52). Dr. Longo provided the concentration level of only one container of Old Spice. (Id. at ¶ 47). He did not, however, analyze the concentration level of asbestos that Mr. Weiss was actually subjected to, as a result of his use of Old Spice. Indeed, there was no specific analysis of the levels of asbestos Mr. Weiss' usage habits would have subjected him to from Old Spice, or any other talc product used by Weiss. Dr. Longo's statements about the levels of exposure that Mr. Weiss was subjected to are anecdotal, at best, and would be of no help to a jury.

Dr. Longo ended up making no specific conclusions about the Weiss' exposure levels to Old Spice. Rather, he concluded **[*35]** that Mr. Weiss' exposure to <u>asbestos</u> in talc was "substantial and well above background or ambient levels." (*Id.* at ¶ 102). There is no reliable foundation for this vague opinion. Indeed, Dr. Longo did not even define "background" levels and did no testing on the background environments where Mr. Weiss lived.

Moreover, the phrase "substantially above background" levels is not defined. The use of that phrase could be very confusing to the jury. Indeed, a jury could easily conclude that being exposed to background levels "substantially above background" necessarily means that Mr. Weiss was subjected to levels of <u>asbestos</u> sufficient to cause mesothelioma.

As will be explained below, there is no reliable opinion in this case that Mr. Weiss was exposed to <u>asbestos</u> at a sufficient level to cause mesothelioma. There is no basis for a conclusion that exposure to <u>asbestos</u> "substantially above background," for a minute or two each day, at the time of talcum powder application, can cause mesothelioma or did cause Mr. Weiss' mesothelioma. As such, Dr. Longo's purported conclusion that Mr. Weiss was subjected to **asbestos**

¹⁹ Testing of samples from time periods before Mr. Weiss used Old Spice certainly could be relevant. It seems unlikely that the characteristics of the talc changed from before Weiss used Old Spice until he was using Old Spice.

²⁰ As noted above, Dr. Longo's conclusion that Old Spice came from the same Italian talc as Johnson & Johnson is incorrect.

"substantially above background" would be of no assistance to the jury.

Dr. Longo **[*36]** has provided a sufficiently reliable basis for the conclusion that talcum powder contains **asbestos**. He has, however, provided no meaningful or reliable opinion on the level of talcum powder **asbestos** exposure that Mr. Weiss was subjected to. As such, he will not be allowed to provide any such opinions.

MOTION TO EXLCUDE DR. JACQUELINE MOLINE

Defendants WCD, Novartis, Chrystal, Block and GSK have moved to exclude the testimony of Dr. Moline. Defendants argue that: (1) Dr. Moline's opinions are not based on a reliable foundation, (2) she did not follow her own methodology, and (3) she is not competent to testify about the <u>asbestos</u> content of defendants' products or dosage levels Mr. Weiss was exposed to. The Motion was joined by defendants Proctor & Gamble, Shulton,²¹ Noxell, Wyeth and Coty. The Court has considered the Motion, Joinders, Response, Reply and Dr. Moline's testimony at the <u>Daubert</u> hearing.

Dr. Moline is Board Certified in Occupational Medicine and Internal Medicine. She specializes in occupational and environmental diseases. For nearly 30 years, she has evaluated and treated hundreds of patients with **asbestos** exposure, including patients with malignant mesothelioma and lung cancer.²²

[*37] Dr. Moline's Opinions on Cosmetic Talc Products

Dr. Moline has issued two reports in this case. The first report is in the form of a declaration dated June 22, 2022 ("2022 Declaration"), in which she outlined Weiss' clinical history, past medical history and exposure history. After the Motion to Exclude was filed, she issued a second declaration, dated April 11, 2023 ("2023 Declaration"). Moline stated that she gave the new declaration to "further address the issue of **asbestos** in cosmetic talc, as well as the ability of **asbestos** exposure from cosmetic talc to cause

mesothelioma." (2023 Declaration at \P 6). The 2023 Declaration includes a discussion of the ostensible <u>asbestos</u> exposure levels that have been shown to be sufficient to cause mesothelioma. (*Id.* at $\P\P$ 16-17).

Dr. Moline opined that Mr. Weiss' exposures to dust from <u>asbestos</u>-containing talcum powder products made and/or sold by defendants were a substantial factor in causing his mesothelioma. Defendants claim that there is no reliable basis for this opinion.

Defendants' Position

Defendants argue that Dr. Moline used conclusory, subjective measures, rather than scientifically verifiable measures. For example, she opined that "proof **[*38]** of significant exposure to <u>asbestos</u> dust is considered to be proof of specific causation," but did not define what level is "significant." She also opined that "each non-trivial exposure to <u>asbestos</u> should be considered a contributing factor in the development of malignant mesothelioma," without defining what level of exposure is "non-trivial." (*Id.* at **¶** 58).

Dr. Moline concluded that "Mr. Weiss' exposure to <u>asbestos</u> from his use of, and exposure to, talcum powder products (including Johnson's Baby Powder, Gold Bond, Old Spice, and Mennen) were, conservatively, at least 80 times above background ... and substantially increased his risk of mesothelioma and indeed was the cause of his mesothelioma." (*Id.* at ¶ 69). According to defendants, she reached this conclusion without conducting any dosage level analysis specific to Mr. Weiss and the products in question.

Dr. Moline admitted that the study used to reach that conclusion that Mr. Weiss was exposed to levels at least 80 times above background was not reliable. At another point in her report, she stated that Mr. Weiss may have been subjected to levels as much as 38,000 times background. (*Id.*). According to the defendants, Dr. Moline [*39] provides no meaningful information about the levels of <u>asbestos</u> exposure caused by the products at issue here. Rather, she has just pulled numbers from a couple of studies and made no meaningful attempt at determining exposure levels based on the facts of this case.

Defendants point out that Dr. Moline cannot even say that the talc products contained <u>asbestos</u> or at what levels. She is not qualified to testify about <u>asbestos</u> contamination in talcum powders. Dr. Moline is not a geologist or materials scientist. Indeed, Moline admits

²¹ Plaintiffs have named Shulton, Proctor & Gamble and Wyeth in connection with the Old Spice talcum powder at issue in the case. Shulton admits that it is the proper party with respect to the Old Spice product.

²² Dr. Moline's papers on mesothelioma patients who used talcum powder have not been peer-reviewed.

that testing for the presence of <u>asbestos</u> is outside of her expertise. As such, according to defendants, Dr. Moline has no reliable basis for discussing the levels of <u>asbestos</u> exposure Mr. Weiss was subjected to by defendants' products.²³

Dr. Moline's opinions are based, in part, on her own 2020-published case series of 33 patients, all of whom had mesothelioma and purportedly used <u>asbestos</u>-containing talc products. The case series was not a peer-reviewed, controlled study. One court has been critical about the lack of information concerning the <u>asbestos</u> exposures of the individuals in her paper. That court stated:

In this case, a principal factual underpinning **[*40]** of the article is that in all thirty-three cases studied "no identified source apart from the talcum powder" was identified. The absence of any specific information on the identities of the individuals studied precludes inquiry into the basis of the factual underpinning of no known exposure to **asbestos** other than talcum powder.

Bell v. American International Industries, F. Supp. 3d , 2022 WL 16571057, *7 (M.D.N.C Sept. 13, 2022).

Defendants claim that Dr. Moline obscured the patient data to falsely represent that the only potential source of **asbestos** exposure for each of the 33 subjects was through talc products. In <u>Bell</u>, it was discovered that at least one of the participants may have had exposure to **asbestos** from sources other than talc.²⁴

Defendants assert that LTL Management, a Johnson & Johnson subsidiary, has discovered that at least four other participants in Dr. Moline's 2020 case series had alternative <u>asbestos</u> exposures. Defendants also claim Dr. Moline knew about at least two of the alternative exposures. Defendants cite a product disparagement action LTL Management filed against Dr. Moline on December 16, 2022, in New Jersey federal court.

Dr. Moline published a second 2023 case series with 166 participants, all of whom were plaintiffs in litigation and who were referred to her by **[*41]** counsel for "medicolegal" evaluation. In this case series, Moline assumed that the talc products each person used contained <u>asbestos</u>. According to defendants, she did not take histories, and dismissed alternative exposures, stating that full histories "are rarely obtained or documented."²⁵

Defendants further criticize Dr. Moline for not applying her own methodology. Dr. Moline's methodology provides that an "essential task" is to take "a proper occupational history" because the history would "reveal what kinds of substances or agents the patient was exposed to in the working environment that might have occurred decades earlier." Defendants claim that Moline failed to conduct a thorough occupational history for the patients in her case series.

Defendants assert that Dr. Moline did not apply the fourth question of her own methodology in this case, which required the exclusion of other competing explanations for the disease. Dr. Moline allegedly ignored or minimized competing explanations for Weiss' disease. Although she acknowledged Mr. Weiss' work with vermiculite and rooting powder, Dr. Moline dismissed those as potential causes, stating that it was "unclear" whether those products contained [*42] <u>asbestos</u>.

Dr. Moline also did not exclude the possibility that Mr. Weiss' disease could be idiopathic; she acknowledged that this could be theoretically possible. She also did not exclude possible idiopathic/genetic causes seen in carriers of the BAPI germline mutation.

Defendants contend that her conclusion that the talc powder caused the mesothelioma in this case is *ipse dixit*. Dr. Moline did not study the amount, duration and

²³ Dr. Moline certainly can, however, rely on the opinion of Dr. Longo that talcum powder contains <u>asbestos</u>.

²⁴ The issue in *Bell* was not the admissibility of Dr. Moline's opinions. In Bell, it was discovered that the deceased, Betty Bell, was one on the 33 patients in Dr. Moline's article. Id. at *5. Defendant prepared a document containing information about each participant, which was subject to a protective order. Id. at *2. The information showed that Betty Bell had reported to the industrial commission in a workers' compensation case that she had been exposed to asbestos during employment at manufacturing facilities. Id. at *5. Thus, at least one of the 33 patients had other known asbestos exposures. Plaintiff in Bell withdrew Dr. Moline as an expert. Id. at *2. The issue addressed by the court in Bell was whether the court should unseal the information about the participants. Id. at *4-7. The court ordered the information unsealed, in part because of the influence of Dr. Moline's article on cosmetic talc litigation nationwide. Id. at *6.

²⁵ Dr. Moline actually stated in the article that it is "critical to obtain a history of all potential exposures to <u>asbestos</u>." (Defendants' Ex. E, 2023 case series).

frequency of Mr. Weiss' exposures to the various talc products at issue here. She provided no meaningful information on the levels of talc <u>asbestos</u> exposure necessary to cause mesothelioma. According to defendants, there simply is no reliable, scientific basis for Dr. Moline's conclusion that Mr. Weiss' mesothelioma was caused by <u>asbestos</u> in defendant's products.

Plaintiffs' Position

Plaintiffs claim that defendants misrepresent <u>Bell</u>. Plaintiffs claim that Betty Bell did not identify any workplace exposure, and her worker's compensation case was dismissed. According to plaintiffs, defense experts, Dr. Feingold and Dr. Mundt, who were also experts in <u>Bell</u>, agreed with Dr. Moline's inclusion of Betty Bell in her 2019 paper.

In his deposition in this case, Dr. Feingold testified **[*43]** that Betty Bell "sort of fits into the group without **asbestos** exposure. I would say without certain **asbestos** exposure." He further stated that he did not think he would have "included her in a group of people to be studied who had no reliable evidence of **asbestos** exposure," but was not "critical of having included her." (Feingold depo. at 135:1-9). Dr. Mundt testified that he did not know of any evidence Betty Bell had been exposed to **asbestos**, other than from cosmetic talc. (Mundt depo. at 118:17-119:4).²⁶

Plaintiffs address defendants' argument that Dr. Moline did not calculate the relative amount of Mr. Weiss' **asbestos** exposure through use of cometic talc. They claim that Arizona law does not require a dose calculation under the substantial factor standard for medical causation. Plaintiffs rely on <u>Salica v. Tucson</u> <u>Heart Hops. Carondelet, LLC., 224 Ariz. 414 (App. 2010)</u>. <u>Salica</u>, however, did not discuss whether or not dose calculations are required.²⁷ In any event, plaintiffs argue that Dr. Moline quantified Mr. Weiss' talc <u>asbestos</u> exposure based on reliable and peerreviewed published data, which she applied to Mr. Weiss' case.

To evaluate levels of <u>asbestos</u> exposure that have been shown to cause mesothelioma, Dr. Moline claims to have looked [*44] to exposure data collected by experts, such as Dr. Longo, and data published in peerreviewed literature. She compared that data to normal background levels to determine whether there was an elevated level of exposure at which disease has been shown to occur in the medical/scientific literature. Dr. Moline asserts that such comparable quantification data for Mr. Weiss' exposure to <u>asbestos</u> from talcum powders supplied by the defendants in this case are found in the peer-reviewed published literature and exposure simulation studies conducted by commercial laboratories, including MAS.

Dr. Moline opined that the medical/scientific literature consistently shows that the levels of Mr. Weiss' exposure to talc will result in a lifetime exposure at f/yr (fiber year) ranges that have been shown to increase the risk of mesothelioma.²⁸ In her 2022 Declaration, she cited to the following studies as the basis for that opinion:

(1) Iwatsubo, Y., 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, 136, 141 (1998).

(2) Lacourt, et al., *Occupational and Non-Occupational Attributable Risk of <u>Asbestos</u> Exposure for Malignant Pleural Mesothelioma, Thorax (2014). ("Lacourt").*

²⁸ Dr. Moline never actually discussed what the lifetime exposure ranges (f/yr) are for talc usage that has been shown to increase the risk of mesothelioma, that is allegedly supported by the medical and scientific literature. She also did not calculate Mr. Weiss' exposure level. Because she did not calculate Weiss' exposure, it is impossible to determine if his exposure falls within the purported lifetime exposure ranges that allegedly create a risk of mesothelioma.

²⁶ Whether or not Betty Bell or any other subject should have been included in Dr. Moline's case series is of no relevance to the issue at hand. As discussed below, Dr. Moline's case series are anecdotal and provide no reliable, scientific support for the notion that <u>asbestos</u> in talc causes mesothelioma.

²⁷ In <u>Salica</u>, the Court of Appeals stated that the substantial factor test seeks to avoid the "unfairness of denying the injured person redress simply because he cannot prove how much damage each [tortfeasor] did, when it is certain that between them they did all." <u>224 Ariz. at 418, ¶ 15</u> (quoting

Piner v. Superior Court, 192 Ariz. 182, n. 3 (1998)). When causation is potentially indeterminable, the tortfeasors are left to apportion damages among themselves. *Id.* As such, a plaintiff "will be allowed to recover if he or she shows multiple defendants 'contributed to the final result,' in which case 'the burden of proof on apportionment is on them.'" *Id. at 419, ¶ 15 (quoting Piner, 192 Ariz. at 182, ¶ 30)*.

(3) Steffen, BA, et al., Serous Ovarian Cancer Caused by Exposure to <u>Asbestos</u> and Fibrous Talc in Cosmetic Talc Powders—A [*45] Case Series, JOEM, Vol. 62, No. 2 (February 2020). ("Steffen")

(4) Rodelsperger, et al., <u>Asbestos</u> and Man-Made Vitreous Fibers as Risk Factors for Diffuse Malignant Mesothelioma: Results From a German Hospital-Based Case-Control Study, Am J Ind Med 39:262-275 (2001). ("Rodelsperger").

(See 2022 Declaration at ¶¶ 67-69) (See also Response at 11). According to Dr. Moline, the data shows that "the mean <u>asbestos</u> exposure during personal application of cosmetic talcum powder using a shaker container for no more than 1 minute is estimated to be 1.49 f/cc."²⁹ (*Id.* at ¶ 68). Dr. Moline further explained that "exposure studies" enabled her to determine that Mr. Weiss' exposures to <u>asbestos</u> from talcum powders were above normal background levels. (See *Id.* at ¶¶ 67-69). She concluded that Mr. Weiss' exposure to <u>asbestos</u> from the use of talc was, conservatively, 80 times above background, which substantially increased his risk of mesothelioma.³⁰ (*Id.* at ¶ 69). Dr. Moline also stated that a more accurate estimate of Mr. Weiss' exposure is based on the exposure simulation by Gordon, which reflects Mr. Weiss' exposure at 38,000 times above background. (*Id.* [*46]).³¹

Plaintiffs assert that Dr. Moline "opined that there are numerous individuals with exposure to <u>asbestos</u>containing talc products who have developed malignant mesothelioma." (Response at 13). Plaintiffs cite more than 15 papers, which they claim support Dr. Moline's opinion. (*Id.* at 13-14). Dr. Moline discussed some of these studies at the <u>Daubert</u> hearing. Some of these studies appear to have nothing to do with whether <u>asbestos</u> in talc causes mesothelioma.

Plaintiffs claim that Dr. Moline did consider alternate sources of <u>asbestos</u> exposure. Mr. Weiss described working with vermiculite and root powder. Plaintiffs assert that there was no evidence these materials contained <u>asbestos</u>. Dr. Moline concluded that, even if those sources contained <u>asbestos</u>, they would not negate the substantial exposure to <u>asbestos</u> from the talcum powder products. According to plaintiffs, Dr. Moline's alleged failure to consider alternative sources of <u>asbestos</u> exposure is grounds for cross-examination and does not preclude admission of her opinions.

Other Cases Where Dr. Moline Testified As An Expert

Plaintiffs assert that Dr. Moline has [*47] previously testified in cases involving exposure to <u>asbestos</u>containing talc and consumer talcum powder products causing mesothelioma. Plaintiffs cite to paragraph 4 of Dr. Moline's 2023 Declaration, in which she states:

I have previously been retained and have testified as an expert witness in litigation in state and federal court cases involving <u>asbestos</u> exposure and disease causation, including matters involving

Dr. Moline concluded that Anderson 2016 shows exposure at 80 times above background. The Anderson 2016 paper does not appear to support plaintiffs' position.

³¹ Moline modified her statements somewhat in the 2023 Declaration. In the 2023 Declaration, she stated that "Mr. Weiss' exposures to <u>asbestos</u> from talc powder products were several orders of magnitude above background levels and above levels demonstrated to increase the risk of and cause pleural mesothelioma." (2023 Declaration at ¶ 50). Further, when citing to Gordon 2014 Study, she stated that Mr. Weiss' exposures were "many tens of thousands of times above background." (*Id.*).

 $^{^{29}}$ Dr. Moline explained that she derived the 1.49f/cc number by averaging the Gordon 2014 Study (1.9), the Anderson 2016 study (.004) and the Steffen 2020 study (2.57). (*Id.* at ¶ 68 fn.24).

³⁰ Dr. Moline arrived at the 80 times above background from a 2016 study by Anderson. (Id. at ¶ 67). Dr. Moline stated that she does not consider the Anderson study reliable. (2022 Declaration at ¶ 67 fn.21). Dr. Moline claims that the Anderson study was designed to "decrease the respirable fiber data collected, including the manipulation of the collection devices and unrepresentatively short exposure activity time." (Id.). The Court looked at the various reference lists submitted, including Moline's list of over 500 references, and could not find a citation to a 2016 Anderson study. The Court did locate an abstract of the Anderson 2016 study through a Google search, Anderson, E., Assessment of Health Risk form Historical Use of Cosmetic Talcum Powder, Epub 2016. The abstract states in part that "TEM analysis for asbestos resulted in no confirmed asbestos fibers and only a single fiber classified as 'ambiguous.' Hypothetical treatment of this fiber as if it were asbestos yields a risk of 9.6 x 10-7 (under one in one million) for a lifetime user of this cosmetic talcum powder. The exposure levels associated with these results range from zero to levels far below those identified in the epidemiology literature as posing a risk for *asbestos*-related disease, and substantially below published historical environmental background levels." Based on the abstract, it is not clear how

exposure to <u>asbestos</u>-containing talc and consumer talcum powder products causing mesothelioma. My methodology has been subject to appellate court review and a Daubert hearing in Federal Court and has been found reliable. My opinions regarding <u>asbestos</u>-containing talc and its ability to cause mesothelioma have been upheld on appeal.

To support this statement, Dr. Moline cites to her curriculum vitae.³² She does not, however, identify the cases, or provide copies of court orders, where her opinions were the subject of <u>Daubert</u> hearings and were allegedly found to be reliable. She also did not cite to any appellate decision reviewing her opinions.

In footnote 3 of the 2023 Declaration, Dr. Moline cites to *Hoffeditz v. AM Gen., LLC, No. CV 09-0257, 2017 WL* 3332263, at *1 (D.N.J. Aug. 4, 2017), in which the court held she was qualified to testify that plaintiff's exposure to **[*48]** <u>asbestos</u>-containing products caused his mesothelioma. That case, however, involved a mechanic who worked with brakes, gaskets, and other automotive parts, known to contain <u>asbestos</u>. The case did not involve cosmetic talc. As such, this is not a case where a court found her opinions about whether consumer talc causes mesothelioma to be reliable.

In <u>*Hoffeditz*</u>, Dr. Moline did not quantify defendant's exposure to each of the defendants' products.³³ Rather,

³³ The <u>Hoffeditz</u> court noted that a "'quantitative dose calculation ... may be far more speculative than a qualitative analysis,' because as a practical matter, the specific data needed to establish precise quantitative values for exposure are not tracked or maintained in many cases." <u>2017 WL</u> <u>3332263, *4</u> (quoting McMunn v. Babcock & Wilcox Power Generation Grp., Inc., No. 2:10CV143, 2014 WL 814878, at *14 (W.D. Pa. Feb. 27, 2014)). As discussed below, the Court agrees that a specific dose calculation may not be feasible in a talc <u>asbestos</u> case. Nor is such a specific calculation required under Arizona law. Arizona law, however, does require evidence, through expert testimony, that a plaintiff was

she did a comparative or qualitative analysis, where she compared the mechanic work done by plaintiff and the products he used with studies where it had been shown that similar exposures to brake and gasket products can give rise to mesothelioma.³⁴ *Id. at *4*.

A review of the available case law involving Dr. Moline does not support the claim that her opinions have been widely accepted by the courts in talc cases. Defendants point out that several courts have prevented Dr. Moline from testifying beyond her expertise. For example, in *Lanzo v. Cyprus Amax Minerals*, Dr. Moline did not attempt to quantify plaintiff's <u>asbestos</u> exposure. <u>254</u> <u>A.3d 691, 704 (N.J. Super. App. 2021)</u>. The appellate court held that the trial court failed to conduct a <u>Daubert</u> analysis and should not have allowed her to "testify [*49] that there was no difference between asbestiform fibers and non-asbestiform cleavage fragments with the same dimensions and chemical composition 'in terms of their ability to cause disease.'" *Id. at 712.*

In Chapp v. Colgate-Palmolive Co., 935 N.W.2d 553, ¶¶ 39-41, 49 (Wis. App. 2019), Dr. Moline's report cited an article authored by Gordon and Fitzgerald reporting that

exposed to <u>asbestos</u> at a sufficient level to be a substantial factor in the development of mesothelioma. The expert cannot simply conclude that plaintiff's exposure was sufficiently high. Rather, there must be some analysis, based on scientific evidence, that a plaintiff was exposed to a sufficient level of <u>asbestos</u> in a talc product, such that it was a substantial factor in causing mesothelioma. Dr. Moline provides no such analysis.

³⁴ Dr. Moline's qualitative analysis in <u>Hoffeditz</u> consisted of discussing "case studies, articles, and government reports concluding that exposure" to <u>asbestos</u> in brakes can give rise to disease and comparing that literature to the types of work Mr. Hoffeditz did. The analysis also compared "the types of activities Mr. Hoffeditz testified were performed on gaskets ... to other studies on different types of <u>asbestos</u> containing gaskets." <u>2017 WL 3332263, *4</u>.

Although Dr. Moline claims she did a similar comparative analysis of Mr. Weiss in this case, that analysis was not explained in either Declaration or in her testimony at the <u>Daubert</u> hearing. As discussed below, Dr. Moline did no comparative or qualitative analysis comparing Weiss' exposure to studies showing that similar exposure to <u>asbestos</u> in talc can give rise to mesothelioma. Such an analysis may not be possible because, as Dr. Moline acknowledged, no controlled study has been done showing the levels of exposure to talc that can present a risk of causing mesothelioma.

³² Exhibit B to the CV is a three-page list of cases where Dr. Moline gave deposition or trial testimony. For each case, she listed the name of the plaintiff, the date of her testimony, and the law firm that employed her. For some cases, she gave a docket number, name of a judge and the county and/or state where the case was filed. From the information given, it is impossible to locate these cases on Westlaw or Google to determine which, if any, of these courts permitted her to offer opinions about **asbestos**-containing cosmetic talcum powder causing mesothelioma.

testing established that ordinary use of talcum powder would cause <u>asbestos</u> to enter the breathing zone of the user in amounts far in excess of background levels, and higher than the current permissible exposure level recognized by OSHA.³⁵ Dr. Moline expressed the opinion that the decedent's exposure to "<u>asbestos</u>containing" talcum powder and exposure to her husband's "<u>asbestos</u>-containing" clothes led to the development of mesothelioma. The appellate court affirmed the exclusion of Dr. Moline's opinions, finding that she "merely parrot[ed]" Gordon's study. *Id. at* ¶ 49. The court found that Dr. Moline was not expressing her own opinions as a physician, but was acting as a conduit for Gordon's opinions, which were outside of her expertise.

Other courts have determined that similar causation opinions by Dr. Moline lack scientific foundation. In Hanson v. Colgate-Palmolive Co., the court disallowed Dr. Moline's opinions [*50] to the extent she relied on a 1976 article by Drs. Rohl and Langer, because she was not qualified to offer opinions concerning the soundness of the methodologies and conclusions in the 1976 article, which was completely outside her specialized area of medical causation.³⁶ 353 F. Supp. 3d 1273, 1292 (S.D. Ga. 2018). The court explained that "[a]llowing [Dr. Moline] to parrot findings concerning these topics from the 1976 article would improperly relieve Plaintiff of his burden to prove the presence of asbestos in CB talc and Plaintiff's exposure to the same, which are the most hotly contested issues in the case." Id. The court reasoned that an expert cannot simply repeat or adopt the findings of another expert. Rather, the expert must be sufficiently familiar with the reasoning or methodology behind the information. The court did, however, allow Dr. Moline to offer a general causation opinion, that repeated exposure to asbestos can cause ovarian cancer.37

In Nemeth v. Brenntag North America, Dr. Moline testified at trial that contaminated talcum powder was a substantial contributing factor in causing decedent's mesothelioma. <u>194 N.E.3d 266 (N.Y. 2022)</u>. The appellate court stated that, although a precise numerical dose calculation is not required **[*51]** there must be some "scientific expression linking decedent's actual exposure to <u>asbestos</u> to a level known to cause mesothelioma." <u>Id. at 272</u>.

The appellate court held that Dr. Moline's causation opinion was conclusory. Id. The court further found that her reliance on studies and scientific literature did not provide the necessary support for her conclusion on proximate causation. Id. The New York court specifically mentioned a Welch article, which it criticized for not quantifying "low level" exposure. Id. The court was also critical of Dr. Moline's reliance on the "Helsinki criteria," which found an association between "significant" and mesothelioma, asbestos exposure without what identifying level of exposure constitutes "significant," and found that mesothelioma was associated with "higher" levels of exposure. Id.

The court also pointed out that the dissent in the court below noted that "[c]ritically, not one of the articles Dr. Moline discussed on the witness stand ... sets forth an estimate of the minimum level of exposure to respirable asbestos ... that would suffice to cause peritoneal mesothelioma." Id. (quoting 123 N.Y.S.3d 12, 31 (App. Div. 2020) (Friedman, J., dissenting)). Thus, the court concluded that Dr. Moline "failed [*52] to provide any foundational basis for her opinion that exposure to asbestos at a level analogous to decedent's was shown to be a substantial factor in causing mesothelioma of any kind." Id. Her causation testimony attempted to rely on a '[c]omparison to the exposure levels of subjects of other studies, but failed to provide 'a specific comparison sufficient to show how the plaintiff's exposure level related to those of the other subjects." Id. (quoting Parker v. Mobil Oil Corp., 857 N.E.2d 1114, 1121 [N.Y. 2006]). The court further noted that the "standard promulgated by regulatory agencies as protective measures are inadequate to demonstrate legal causation" and, thus, concluded that Dr. Moline' testimony regarding OSHA standards "could not be relied upon to fill the gap in proof as to the level of exposure sufficient to cause peritoneal mesothelioma." Id. Thus, the New York Court of Appeals held that Dr.

³⁵ It appears that this is the same paper by Gordon that Dr. Moline relies on for her opinions in this case.

 $^{^{36}\,\}text{Dr}.$ Moline cites to the 1976 Rohl and Langer study in her report in this case. (2022 Declaration at \P 60).

³⁷ Other cases cited by defendants did not involve Dr. Moline's opinions on talc. *See, e.g., Robinson v. Flowserve*, No. 14-CV-161-ABJ, 2015 WL 10714176 (D. Wy. Nov. 16, 2015) (*asbestos* exposure in a Wyoming trona mine);

Amorgianos v. National R.R. Passenger Corp., 303 F.3d 256, 260 (2d Cir. 2002) (inhalation and dermal exposure to toxic chemicals (not <u>asbestos</u>) while painting a bridge at a jobsite); In re New York City Asbestos Litig. (Juni v. A.O. Smith Water

Products), 11 N.Y.S.3d 416, 421 (N.Y. Sup. Ct. 2015) (workplace *asbestos* exposure from brakes, clutches, and gaskets).

Moline's testimony should have been precluded and reversed the multi-million jury verdict in favor of plaintiff.

Some courts have allowed Dr. Moline's testimony. For instance, in *Kaenzig v. Charles B. Chrystal Co.*, Dr. Moline testified that plaintiff's "only source of **asbestos** exposure came through the household contamination from his ... **[*53]** father's work" and that, even if he had been exposed to **asbestos** from some other unknown source, it would not change her opinion that exposure to defendant's raw talc caused his mesothelioma, as both exposures would be contributing factors to the disease. No. A-2512-13T3, 2015 WL 1365589, at *3 (N.J. Super. Ct. App. Div. Mar. 27, 2015). The appellate court found that the trial court did not abuse its discretion in allowing her opinions.

In Olson v. Brenntag N. Am., Inc., Dr. Moline and Dr. Longo testified that plaintiff would have been exposed at levels vastly exceeding - perhaps 1000 times more - any exposure from ambient air. 132 N.Y.S.3d 741 (N.Y. Sup. Ct.), judgment entered sub nom. In re New York City Asbestos Litig. (N.Y. Sup. Ct. 2020), rev'd sub nom. Matter of New York City Asbestos Litig., 171 N.Y.S.3d 503 (2022). Moline further testified that exposure at those levels was sufficient to cause plaintiff's mesothelioma. In that case, Dr. Moline relied, in part, on the Gordon 2014 Study and the 1976 Rohl study. Defendant argued that Dr. Moline failed to provide a scientific or quantitative expression of plaintiff's exposure. The court disagreed, finding that the sufficiency of her sources went to the weight of her opinion, not its admissibility. The court found that Dr. Moline's testimony and that of the other expert witnesses was sufficient to establish [*54] causation.

Most recently, a New York trial court allowed Dr. Moline to testify in a consumer talc case. Campise v. Arkema, Inc., No. 814239/2021, N.Y.S.3d , 2023 WL 3313636 (Sup. Ct. April 28, 2023). In Campise, Dr. Moline gave an estimate of exposure levels for each of defendants' products. For instance, she estimated plaintiff's Gold Bond exposure levels were between .02 and 0.26 f/cc-yrs, Caldesene exposure levels at 0.02 f/cc-yrs, and Jean Nate and Chanel Talcum Powders levels at 0.03 f/cc-yrs, for a combined asbestos exposure of 0.07 f/cc-yrs. 2023 WL 3313636, at *4. Dr. Moline testified that this level of exposure increased plaintiff's risk of developing mesothelioma by 2.8 to 7.9 times. Id. The court found that Dr. Moline's testimony exceeded the requirements in Nemeth by providing "estimates of quantified exposure levels" and comparing those estimates to levels demonstrated to cause

mesothelioma. Id

The Daubert Hearing

On June 6, 2023, the Court held a <u>Daubert</u> hearing to examine the reliability of Dr. Moline's causation opinions. Both sides had an opportunity to examine her opinions.

During her testimony, Dr. Moline explained that she applied the Welch method for evaluating causation in a toxic exposure case. Welch, et. al., <u>Asbestos</u> Exposure Causes Mesothelioma, but Not This <u>Asbestos</u> Exposure: An Amicus [*55] Brief to the Michigan Supreme Court, published in 2007 in the International Journal of Occupational and Environmental Health ("Welch").³⁸ She explained that Welch's method was modified or "streamlined" from the Bradford Hill criteria, which she asserted is the generally accepted scientific method for evaluating causation of disease.

Dr. Moline explained that the Welch method requires the examination of four questions to determine causation of disease in an individual. (2022 Declaration at \P 70). The four questions are:

- 1. Was the individual exposed to a toxic agent?
- 2. Does the agent cause the disease present in the individual?
- 3. Was the individual exposed to this substance at the level where the disease has occurred in other settings?
- 4. Have other competing explanations for the disease been excluded?

(*Id.*). In a cursory fashion, Dr. Moline concluded in her Declaration that Weiss' exposure to <u>asbestos</u> allegedly in talc caused his mesothelioma. (*Id.* at $\P\P$ 70-71). She elaborated somewhat on her analysis of these four questions at the <u>Daubert</u> hearing.

In addressing the first question, Dr. Moline stated that it was her opinion that Weiss had been exposed to <u>asbestos</u> in talc, which she contends is a [*56] toxic agent. She explained that talcum powder has been shown to contain <u>asbestos</u>, citing testing by Dr. Longo and Dr. Compton, and the testing of talc ores. She concluded that the talcum powder that Weiss used, including Old Spice, contained <u>asbestos</u>. She admitted,

³⁸Welch is not a scientific study or analysis. It is an amicus brief filed with the Michigan Supreme Court taking the position that <u>asbestos</u> in brakes can cause mesothelioma.

however, that not every talc product contains <u>asbestos</u>. (Daubert Hearing, 6/6/2023, For the Record ("FTR") at 9:29:10).³⁹

In addressing the second question, whether talcum powder causes mesothelioma, Dr. Moline opined that **asbestos** causes mesothelioma. She testified that mesothelioma is a "signal tumor" for **asbestos**. Moline explained that a signal tumor is one that signals that someone had a particular exposure. In other words, a signal tumor is a rare tumor, like mesothelioma, that is associated strongly with a particular exposure, such that it is assumed that the patient had the exposure.

Dr. Moline gave an example of hemangiosarcoma of the liver, a rare cancer associated with vinyl chloride. When someone is diagnosed with hemangiosarcoma of the liver, it is assumed that he or she had exposure to vinyl chloride.

Dr. Moline testified that mesothelioma diagnoses are handled the same way. "We know that mesothelioma is caused by **[*57]** <u>asbestos</u>. So, mesothelioma signals that someone has had <u>asbestos</u> exposure. And then the question is, where did that exposure come from?" (FTR 9:24:36-9:24:52).⁴⁰ Dr. Moline opined that mesothelioma is a signal tumor because it is strongly associated with <u>asbestos</u> exposure, based on literature and articles spanning some 60 years. Thus, she concluded that the <u>asbestos</u> in talc causes mesothelioma.⁴¹

Dr. Moline admitted that there is no case-controlled study of users of talcum powder product, that establishes a causal link between talc exposure and

mesothelioma. She explained that most studies that have looked at mesothelioma have looked at individuals with a common workplace because they are "easier to follow and you know they have been exposed. You don't know what people do in the privacy of their home. We don't know what products they are using in the privacy of their home. No one has attempted to find out who bought what, where, when. To do such a study would be overwhelmingly complex to do this type of study," (FTR at 9:26:28-9:26:48).42 "The issue really is, were they exposed to *asbestos*, not that we have a study of every single person who was a user of that particular product." (FTR at [*58] 9:27:13-9:27:21). The long latency period is another factor that makes studies difficult, and subjects must be followed for about 50 or 60 years to know if they will develop mesothelioma.43

Dr. Moline explained that, even though there are no controlled studies of talc users, she relied on case reports and case series that associate exposure to **asbestos** from cosmetic talc and mesothelioma. At the hearing, she referred to the following 18 case reports or cases series which she asserted show that **asbestos** in cosmetic talc can cause mesothelioma.⁴⁴

1. Churg, A. Warnock ML. <u>Asbestos</u> and other ferruginous bodies. Am J Pathol 1981; 102:447-56. Dr. Moline testified that, in this report, pathologists looked at fibers in women's lungs and postulated that the fibers were present due to use of cosmetic talc. The abstract states in part that "These findings suggest that women may be exposed to specific <u>asbestos</u>-containing products, e.g., cosmetic talc.

⁴³ The latency period is an issue whether the study examines occupational exposures or home use of talc products.

³⁹ FTR refers to the Court's audio/visual record of the proceeding. Copies may be requested from Electronic Records Services.

⁴⁰ Dr. Moline stated in her report that, under the Helsinki criteria, "the first question usually asked of a patient diagnosed with mesothelioma, concerns how, when, and where the patient was exposed to <u>asbestos</u>." (2022 Declaration at ¶ 57).

⁴¹ Welch stated that, "once an occupational or paraoccupational exposure to <u>asbestos</u> has been established (Question 1), the sole question remaining for examination is whether the exposure or set of exposures of that individual is similar to exposures that have been documented to cause mesothelioma in others..." (Hearing Ex. 5 at 320-21). Here, Mr. Weiss allegedly had no occupational or para-occupational exposures. Dr. Moline assumed, without scientific basis, that talc usage is comparable to occupational/para-occupational exposures. This will be discussed further below.

⁴² Dr. Moline dismissed the recommendation, at the conclusion of the Emory case series, that a controlled study was needed to conclude that <u>asbestos</u> in talc causes mesothelioma, claiming that researchers will always say that additional research needs to be done in a particular area. Notably, Emory did not indicate that such a study was too difficult. In fact, Emory stated that such large-scale controlled studies were "required." The issue is not whether "more research" is necessary. The issue is whether there is any reliable scientific study that has determined that there is a causal relationship between <u>asbestos</u> in talc and mesothelioma. There is not.

⁴⁴ The 18 case reports and case series Moline relied on are not scientific, controlled. studies that have found a causal connection between <u>asbestos</u> in talcum powder and mesothelioma. Rather, these papers are anecdotal reports on mesothelioma cases.

... In persons with much lower or environmental exposure, there does not appear to be any correlation between numbers of bodies and disease, in particular between numbers of bodies and carcinoma of the lung or gastrointestinal tract. The situation for **[*59]** mesothelioma is uncertain." The study does not attribute mesothelioma to talc exposure.

2. Roggli, Victor, *Pathology of Human Asbestosis: A Critical Review*, Adv Pathol 2:31-60 (1989). Dr. Moline testified that, in this report, pathologists postulated that **asbestos** fibers in women's lungs were from use of cosmetic talc. It did not connect talc with mesothelioma. Dr. Moline testified that she was unaware of any testing of Weiss' lung tissue.

3. Andrion, Alberto, et al. *Malignant Peritoneal Mesothelioma in a 17-Year-Old Boy with Evidence of Previous Exposure to Chrysotile and Tremolite Asbestos*, Human Pathology, Volume 25, No. 6 (June 1994). Dr. Moline testified that this report was of a young man diagnosed with mesothelioma who had a history of talc use.

4. McDonald AD, *Mesothelioma in Quebec chrysotile miners and millers: epidemiology and aetiology*. The Annals of occupational hygiene. 1997 Dec 1;41(6):707-19.

5. Bulbulyan, M.A., et al., *Cancer Mortality Among Women in the Russian Printing Industry*, AM J Ind Med, 36:166-171(1999). This study involved women working in the Russian printing industry. The study noted one death from mesothelioma of the abdomen, which the researchers thought might **[*60]** be related to the use of <u>asbestos</u>contaminated talc in paper. The study did not involve cosmetic talc and is irrelevant.

6. Ghio, A, Roggli, V, *Talc Should Not Be Used for Pleurodesis in Patients with Nonmalignant Pleural Effusions*, Am J Respir Crit Care Med, Vol 164, No. 9, pp 1741 (2001). The was a study of treatment using talc pleurodesis. It is not relevant to the issue of mesothelioma causation. The paper warned against even the use of <u>asbestos</u>-free talc in the treatment.

7. Roggli, Victor, et al., *Tremolite and Mesothelioma*, Ann. Occup. Hyg., Vol. 46, No. 5,pp. 447-453 (2002). The report involved five cases of mesothelioma with anthophyllite/tremolite in lungs, which was attributed to cosmetic talc use.

8. Musti, et al., *Exposure to <u>Asbestos</u> and Mesothelioma Risk of Onset of Primary Ovarian*, Description of Two Cases, 2009.Musti 2009. The study involved ovarian cancers, not lung-related diseases. This study is irrelevant here. 9. Gordon 2014 Study

10. Oury, T., Sporn, T., and Roggli, V, Pathology of <u>Asbestos</u>-Associated Diseases, Third Ed. Copyright 2014 - Chapters 3 and 8. "Tremolite and anthophyllite identified as cores to <u>asbestos</u> bodies found in women and attributed to contamination [*61] of talcum powder." (Hearing Ex. 16).

11. Ilgren E, et al., Critical reappraisal of Balangero chrysotile and mesothelioma risk, Epidemiology Biostatistics and Public Health, Vol. 12, No. 1 (2015). According to plaintiffs, this report involved cases of "mesothelioma in Italian chrysotile miners and millers attributed to cosmetic talc exposure from Italian talc mines." (Hearing Ex. 16). The report recognizes that the connection between talc and mesothelioma is inconclusive. The conclusion of the llgren report states that "[a]ll the evidence suggests that crocidolite, amosite and tremolite are responsible for the alleged mesothelioma cases at Balangero. Mirabelli et al admit their 'assessment' was based on 'incomplete data'. They regard the association between Balangero chrysotile and mesothelioma only as 'possible'. They 'had no access to the individual records of the cohort members alive in 1987' and 'Information on exposure (was only) available for 50% of all cases in the RMM'.45 Myriad sources of naturally occurring and commercial amphibole asbestos exist to account for the alleged Balangero cases. The diagnostic accuracy of the cases can also be questioned and confusion surrounding job [*62] titles raises the question if any of the cases actually ever occurred in 'miners' per se."

12. Mirabelli D, Letter on: "Cosmetic talc as a risk factor for pleural mesothelioma: a weight of evidence evaluation of the epidemiology", Inhalation Toxicology, 29:8, 341 (2017).

13. Boussios S, Malignant peritoneal mesothelioma: clinical aspects, and therapeutic perspectives. Annals of gastroenterology. 2018 Nov;31(6):659-69.

14. Moline 2020 case series.

⁴⁵ "RMM" refers to Registry of Malignant Mesothelioma.

15. Emory case series.

16. Kanarek MS, Asbestos in Talc and Mesothelioma: Review of the Causality Using Epidemiology. Medical Research Archives. 2020 Plaintiff asserts that Kanarek May 25;8(5). concluded that "use of talc as a cosmetic agent on adults or babies is elevating the risk of mesothelioma based on methodological analysis applying the Hill criteria." (Hearing Ex. 16). The Kanarek paper is not a study or case series. Rather, it is a review of various papers of others, including Moline's 2020 and Emory's case series.

17. Gregory SN, *Malignant peritoneal mesothelioma literature review: past, present, and future.* Dig Med Res 2022; 5:29 doi.org/10.21037/dmr-22-19regory 2022.

18. Moline 2023 case series. Moline testified that she used the same [*63] method for this and her2020 case series to determine whether the individuals involved had <u>asbestos</u> exposure from the use of cosmetic talc. She testified that the purpose of her papers was to "inform the medical community that, number one, you need to take a good history and you also need to think about the fact that this [cosmetic talc] is a source of <u>asbestos</u> exposure." (FTR at 9:42:21 - 9:42:33).

These papers were cited in various places in her 2022 and 2023 Declarations. Dr. Moline testified that these papers were the type of information that medical doctors rely on to determine causation.

Dr. Moline next testified about the third question of the Welch method, which is whether Weiss was exposed to **asbestos** at a level that is known to have caused mesothelioma in other cases. She explained that it is impossible to determine whether levels of exposure at around background are associated with mesothelioma. She acknowledged that no study suggests that levels at background are associated with mesothelioma.

Dr. Moline testified about the chart in paragraph 48 of her 2023 Declaration, comparing Anderson 2016, Gordon 2014 and Steffen 2020 results of shaker application tests to background. She **[*64]** admitted at the hearing that these studies showed exposures at a point in time of application, not lifetime or cumulative exposures. (FTR at 10:56:45). Thus, Dr. Moline's conclusion that, based on these studies, Weiss' exposure was "orders of magnitude above background" addressed only the point in time when he applied the product. Dr. Moline did not provide an assessment or estimate of Weiss' lifetime or cumulative exposure. (2023 Declaration at \P 50). As discussed below, Dr. Moline did no quantitative estimate of Weiss' exposure.

Dr. Moline testified that, to answer the third Welsh question, she would look at levels of exposure, as allegedly documented in published literature, connected with mesothelioma. She said there are cases of very short-term exposure, for example "a couple of days for very high levels of exposure." (FTR at 9:47:08). Moline testified that there are also some cases of people exposed to <u>asbestos</u> for a couple of months, for example people working in construction for a summer, who developed mesothelioma decades later.⁴⁶

Dr. Moline, referring to <u>Hoffeditz</u>, explained why she does not do precise dose calculations in <u>asbestos</u> cases. She testified that she uses "the number of years, [*65] how long it takes them to use the product, the manner in which they are applying the product and look to see if there is analogous reporting of that in the literature to be able to compare." (FTR at 9:33:57 - 9:34:14).

Dr. Moline referred to four epidemiological studies that have allegedly established levels known to cause mesothelioma. These studies quantify an individual's exposure and statistically determine the increase in risk for mesothelioma. The studies she relied on were (1) Lacourt (Hearing Ex. 7); (2) Rodelsperger (Hearing Ex. 8); (3) Rolland, P., et al, "Risk of Pleural Mesothelioma: A French Population-Based Case-Control Study (1998-2006)." October 20, 2006/Oral Session: Epidemiology II ("Rolland") (Hearing Ex. 9); and Jiang Z, Hand-spinning chrysotile exposure and risk of malignant mesothelioma: A case-control study in Southeastern China. Int J Cancer. 2018 Feb 1;142(3):514-523 ("Jiang") (Hearing Ex. 10). Each of these studies came up with ranges of exposure levels to asbestos (as expressed in fiber years) where mesothelioma had occurred.⁴⁷

⁴⁷ Dr. Moline testified that a fiber year (f/yr) is calculated by multiplying the dose (f/cc) by the duration (years). She testified that calculating fiber years was a method of describing what

⁴⁶ Dr. Moline did not cite to any study showing that an **asbestos** exposure of a couple of days or months could cause mesothelioma. She acknowledged that there is no such study involving cosmetic talc. As she also stated, an exposure of a couple of days would have to be at "very high levels" to cause mesothelioma. The reality is that there is no scientific basis for the conclusion that exposure to **asbestos** in talc for a couple of days can cause mesothelioma.

Dr. Moline summarized the exposure ranges in studies in a chart in paragraph 17 of her 2023 Declaration. As discussed below, these studies **[*66]** involved occupational exposures. Although Lacourt also involved study of non-occupational exposures, Dr. Moline only cited to the exposure ranges found for occupational exposures.

Dr. Moline testified that Weiss' *asbestos* exposure was comparable to the exposure ranges in the four studies. She said that, based on the number of years Weiss used talc, his levels of exposure and the time that he took to apply he powder, a calculation of his dose could be made to see where his exposure would fall within the ranges of the four studies. (FTR at 10:03:53). In this case, however, Dr. Moline did not provide a calculation or estimate of a dose level.⁴⁸

Dr. Moline testified that, although these studies did not involve users of cosmetic talc, she believed it was appropriate to apply the risk/causation data derived from these studies to talc users, like Weiss. She explained that the issue is not whether a person was exposed at home or in the workplace, but whether they were exposed to <u>asbestos</u>.

Dr. Moline testified that the medical community does not require quantification of an individual's dose/exposure level to attribute a mesothelioma to <u>asbestos</u> exposure. She then referred to the Helsinki criteria [*67] for attribution (1997), which sets forth the attributes to look for in <u>asbestos</u> related diseases. (Hearing Ex. 4).

Dr. Moline noted that the Helsinki criteria first looks for physical "markers" or histopathologic evidence of <u>asbestos</u> exposure. In the absence of any markers, "a history of *significant* occupational, domestic, or environmental exposure to <u>asbestos</u> will suffice for attribution." (*Id.* at 313) (emphasis added).⁴⁹ The Helsinki criteria listed several points to be considered, including: (1) "The great majority of mesotheliomas are due to <u>asbestos</u> exposure."; (2) "Mesothelioma can occur in cases with low <u>asbestos</u> exposure."; and (3) "About 80% of mesothelioma patients have had some occupational exposure to <u>asbestos</u>..." (*Id.*). The

someone's cumulative exposure might be.

Helsinki criteria recognized that "[a] cumulative fiber dose, as expressed in fiber-years per cubic centimeter is an important parameter of **asbestos** exposure." (*Id.* at 311).

In reviewing Weiss' medical records, Dr. Moline did not see any of the physical markers mentioned in the Helsinki criteria for attributing disease to <u>asbestos</u> exposure. Weiss' lung tissue was not examined for a marker of <u>asbestos</u> exposure. She testified, however, that Weiss had a significant [*68] domestic exposure, sufficient to attribute his mesothelioma to <u>asbestos</u>.

Although Dr, Moline did not calculate Weiss' specific dosage levels or risk, as she did in *Campise*, she stated that she did a qualitative analysis of Weiss' exposure compared to the occupation exposure in the four studies. Dr. Moline claims that she did the same analysis here that she did in *Hoffeditz*. She allegedly compared the manner in which Weiss used Old Spice, the number of years of exposure, and the duration of time and the frequency of exposures. Dr. Moline concluded that Weiss had a "significant" exposure, because it allegedly exceeded the levels in the four studies, Lacourt, Rodelsperger, Rolland and Jiang.

Discussion

Dr. Moline is a highly qualified physician in the field of environmental and occupational disease. In particular, she has vast experience in examining patients diagnosed with mesothelioma. The operative question, however, is whether Dr. Moline has the necessary foundation to give scientifically reliable opinions that **asbestos**-containing talc was the cause of Mr. Weiss' mesothelioma.

Reliability requires the Court to assess whether an expert's testimony has a "reliable basis in the knowledge and experience [*69] of the relevant discipline." <u>Kumho Tire Co. v. Carmichael, 526 U.S.</u> <u>137, 149 (1999)</u>. In <u>Daubert</u> and <u>Kumho Tire</u>, the Supreme Court suggested several factors to determine reliability: (1) whether a theory or technique can be tested; (2) whether it has been subjected to peer review and publication; (3) whether there is a known or potential error rate of the theory or technique; and (4) whether the theory or technique enjoys general acceptance within the relevant scientific community. <u>Daubert, 509 U.S. at 592-94</u>; <u>Kumho Tire, 526 U.S. at 149-50</u>.

⁴⁸ Later in her testimony, however, Dr. Moline appeared to be prepared to provide dosage information. The Court sustained an objection, because no such opinion on dosage was timely disclosed. No dosage information was provided in either of Dr. Moline's extensive declarations.

⁴⁹ What constitutes a "significant" level is not defined.

"[T]he test under *Daubert* is not the correctness of the expert's conclusions but the soundness of his methodology." Primiano v. Cook, 598 F.3d 558, 564-65 (9th Cir. 2010). The inquiry examines the analytical connection between the data, the methodology, and the expert's conclusions. Id. "When the methodology is sound, and the evidence relied upon sufficiently related to the case at hand, disputes about the degree of relevance or accuracy (above this minimum threshold) may go to the testimony's weight, but not its admissibility." i4i Ltd. P'ship v. Microsoft Corp., 598 F.3d 831, 852 (Fed. Cir. 2010). As the Supreme Court explained in *Daubert*, "[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." 509 U.S. at 596.

Dr. Moline contends that <u>asbestos</u> in talcum powder can cause mesothelioma, **[*70]** and that it played a significant factor in Mr. Weiss's mesothelioma. The "error rate" in Dr. Moline's theory is unknown. It seems evident, however, that the error rate would be significant. Indeed, the notion that <u>asbestos</u> in talcum powder causes mesothelioma simply cannot be reliably tested.

The theory that <u>asbestos</u> from talcum powder causes mesothelioma does not have general acceptance in the scientific community. Indeed, there is simply no definitive, scientific, control group, peer-reviewed study that has concluded that there is any causal connection between <u>asbestos</u> in talc and mesothelioma. Many of the articles and studies cited by plaintiffs are completely irrelevant. Others are anecdotal in nature.

Dr. Moline's own case series do not demonstrate a causal link between talcum powder and mesothelioma. Both of her case series involved patients who had mesothelioma. There certainly was no comparison to a "control group." Dr. Moline did not conduct a rigorous scientific analysis of the cause of the disease in the subjects of her studies. Indeed, she appears to have paid little, if any, attention to alternative causes.

Dr. Moline's approach appears to be that, if she finds that a person **[*71]** who has mesothelioma was exposed to <u>asbestos</u> in talc, she concludes that the talc <u>asbestos</u> was the cause of the mesothelioma. The fact, however, that a person with mesothelioma was exposed to talcum powder <u>asbestos</u> does not establish a causal connection between the <u>asbestos</u> and the mesothelioma. The Court has not even been provided with any study showing that the mesothelioma rate is higher for users of talcum powder than nonusers. Dr. Moline acknowledged that such a study has never been done, claiming that such studies would be too difficult to conduct.⁵⁰

Even if there was some reliable, scientific basis for the conclusion that <u>asbestos</u> in talc can cause mesothelioma, there is no reliable basis for the conclusion that Old Spice talcum powder, or any of the products involved in this case, caused Mr. Weiss' mesothelioma. This problem is highlighted by the complete absence of any reliable basis for concluding what level of exposure was necessary to create a real risk of mesothelioma. There is also no reliable basis for concluding that Mr. Weiss was exposed to <u>asbestos</u> in talc at an exposure level high enough to cause mesothelioma.

Dr. Moline's opinion that Old Spice was a substantial factor [*72] in causing Weiss' mesothelioma is not reliable. It does not appear that any of the papers she cited involved an Old Spice product. For example, Dr. Moline cited to the Rohl 1974 study, and the Rohl and Langer 1976 study, which involved the testing of twenty consumer talcum powder products. (2022 Declaration at ¶ 60). Dr. Moline did not discuss whether Old Spice talc powder was included in those studies. (Id.). The Gordon 2014 study involved exclusively Cashmere Bouquet, which was derived from three regions-Italy, North Carolina, and Montana. (Id. at ¶ 61). Dr. Moline did not discuss the talcum powder products tested in the Mattenklott 2007, Anderson 2016, or Steffen 2020 studies. (See Id. at ¶¶ 59-69). Dr. Moline did not discuss what talcum powder brands the subjects used in her 2020 case series or in the Emory case series. (Id. at ¶ 66). Thus, there is no basis for her conclusion that Old Spice posed the same risk other talc products allegedly pose. In any event, none of these papers established a scientifically reliable causal connection between any talc product and mesothelioma. The papers are only anecdotal.

⁵⁰ Rigorous scientific studies on whether toxic substances cause disease can be difficult. The fact that obtaining reliable, scientific information can be difficult, however, is not a reason to admit unreliable, anecdotal opinions. Plaintiffs' other expert, Dr. Maddox, has noted in the Emory study that "large scale controlled, studies will be required to assess prospective risk of developing mesothelioma following repeated exposure to talc." (See discussion below). Dr. Maddox did not suggest that conducting such studies would be unduly difficult.

The Court finds the conclusions of the New York Court of Appeals in *Nemeth* [*73], discussed above, to be highly persuasive. <u>194 N.E.</u> <u>3d</u> <u>266</u>. The New York Court of Appeals was highly critical of Dr. Moline's failure, and the failure of the studies she relied on, to identify what level of exposure constituted "significant." <u>Id. at 272</u>. None of the studies that Moline relied on "sets forth an estimate of the minimum level of exposure to respirable <u>asbestos</u>...that would suffice to cause peritoneal mesothelioma." <u>Id.</u> "Dr. Moline failed to provide any foundational basis for her opinions that exposure to <u>asbestos</u> at a level analogous to decedent's was shown to be a substantial factor in causing mesothelioma of any kind." <u>Id</u>.

Here, Dr. Moline provided no reliable estimate of the minimum level of exposure that would cause mesothelioma. She also provided no reliable basis for concluding that Mr. Weiss was exposed at an analogous level or higher. Indeed, Dr. Moline only stated that Mr. Weiss may have been exposed to levels of 80 times, or even 38,000 times, above background. (2022 Declaration at ¶ 69).⁵¹ Dr. Moline had no reliable basis for concluding that Mr. Weiss was exposed at these levels. Dr. Moline provided no analysis as to how she concluded that Mr. Weiss' use of Old Spice caused him to be [*74] exposed at these levels.

Furthermore, Anderson's and Gordon's finding of <u>asbestos</u> exposure at levels 80 times and 38,000 times above background exposure levels were based on applications of talc powder, at single points in time.⁵² The Gordon 2014 study application time was 1 minute. (2022 Declaration at ¶ 68, fn.23). In the Anderson study, the application time was 16-43 seconds. (*Id.*). Assuming that <u>asbestos</u> is in talcum powder, it seems axiomatic that the user of talcum powder could have relatively high

exposure levels while the talcum powder is being applied and shortly thereafter.⁵³ The relatively high level of exposure during the brief time of talc powder application, however, does not identify a user's overall, cumulative, level of exposure.⁵⁴

In *Campise*, the trial court allowed Dr. Moline's testimony because she provided meaningful "dosage" opinions about the amount of overall exposure the plaintiff was subjected to. *2023 WL 3313636, at *4.* Dr. Moline provided no such information here, claiming that it was not necessary. Yet, during the *Daubert* hearing, Dr. Moline was asked if she had "dosage" information and appeared to be prepared to give dosage information for Mr. Weiss. Dr. Moline previously stated, however, that she **[*75]** was not asked to calculate a numerical dose of Weiss' *asbestos* exposure. (2022 Declaration at fn.26). No "dosage" calculations were previously disclosed by Dr. Moline. Accordingly, the Court sustained defendant's objection that any such opinions were not timely disclosed.

Dr. Moline summarily concluded that "[m]esotheliomas, both pleural and peritoneal, have repeatedly been shown to occur at levels far lower than that which Mr. Weiss was exposed to..." (2022 Declaration at ¶ 69). There is no scientific basis for the opinion. This conclusion is a leap in logic, without any factual, scientific, or medical foundation. Indeed, the notion that some people using talcum powder at far lower levels than Mr. Weiss developed mesothelioma does not demonstrate a causal connection between the use of talcum powder and mesothelioma in those other cases. Nor does it establish a causal connection in Mr. Weiss' case. Dr. Moline also has no reliable basis for concluding that Weiss' level of exposure was higher

⁵⁴ During her testimony, Dr. Moline agreed that the information from Gordon 2014, Anderson 2016 and similar studies provide information only about fiber release at single points in time. She also agreed that these studies do not provide any information about overall lifetime exposure. There is no scientific basis for the conclusion that brief points in time exposures to talcum powder can cause mesothelioma. There is also no scientific evidence supporting the notion that Weiss' brief points in time exposures caused his mesothelioma.

⁵¹ Dr. Moline arrived at the range of 80 times to 38,000 times background by dividing the **asbestos** levels found by Anderson 2016 (.004 f/cc) and Gordon 2014 (1.9 f/cc) by the ATSDR background level of .00005 f/cc. (2022 Declaration at ¶ 67). Dr. Moline testified that she used an average of background levels across the United States. To achieve the range above background, however, she just picked numbers out of studies. She did no analysis of Weiss' actual usage of talc, or his exposure compared to average background levels. As such, the 80 times and 38,000 times ranges have no relationship to Weiss' actual exposure levels above background from Old Spice, or any other talc product he used.

⁵² As noted above, it is not clear how Dr. Moline concluded that the Anderson study supports a finding that talcum powder application results in exposure at 80 times background.

⁵³ As Dr. Longo discussed, the <u>asbestos</u> concentration levels are important. The higher the concentration of <u>asbestos</u> in a product, the greater the exposure will potentially be to respirable airborne <u>asbestos</u> fibers. Dr. Longo and Dr. Moline, however, did not do any analysis of the concentration levels Mr. Weiss was subjected to as a result of his application of Old Spice and other talcum products.

than in other cases, because she did not quantify his level of exposure.

Dr. Moline assumed that Weiss had sufficient exposure to cause mesothelioma. There is no reliable scientific basis for such **[*76]** a conclusion. While Mr. Weiss may have been exposed to relatively high levels of <u>asbestos</u> during the minute or so while the talc was being applied, no information has been provided as to what Mr. Weiss' overall level of exposure to <u>asbestos</u> in talc was during the entire time-period that he used talcum powder.⁵⁵

Nowhere does Moline discuss how many of these brief applications of talc it would take over a lifetime to cause

Q. Okay. And as to the amount of time when you would shake it from the container, to apply it to the areas you mentioned, would that take just a couple of seconds? How long would that take?

A. A minute or two. Page 410

Q. And you were asked earlier about a minute or two being kind of a long time. You may have just, in the camera right there, kind of shown me how you would apply it to your neck, chest, or arms; can you just kind of give me an indication and see if that estimate is correct?

A. I would shake it one hand, put it underneath like that. Shake it in the other hand, put it under like that. And put it in my hand and do around my neck and groin area and sometimes with my shoes.

Q. And would you agree that that, what you just described and showed me on camera, would take less than a

minute or two?

A. Yeah, give or take. You know, like I said, I wasn't timing it to see how long it [*77] took.

(Weiss depo. at 409:20-410:15). It could not have taken more than a few seconds to complete the talc application, based on Weiss' own description. It seems obvious that the statement that it might have taken a "minute or two" was a generic description.

mesothelioma.⁵⁶ She provided no minimum level of exposure that would lead to mesothelioma.

At oral argument on the summary judgment motion, plaintiffs' counsel asserted that four studies, Lacourt, Rodelsperger, Rolland and Jiang show that "extremely small" levels of asbestos exposure increase the risk of occurrence of mesothelioma. According to Dr. Moline, these studies demonstrate the "minimum lifetime exposure ranges sufficient to cause mesothelioma." (2023 Declaration at ¶ 17). As discussed further below in the ruling on the summary judgment, these studies do not support the notion that exposure from asbestos allegedly in cosmetic talc is sufficient to cause mesothelioma. The Lacourt study, for instance, involved both occupational and non-occupational exposures. Dr. Moline's report cited only to the analysis and conclusions of the occupational exposure subjects, which are completely irrelevant to Mr. Weiss' nonoccupational use of talc. Dr. Moline did not discuss the Lacourt study's findings on men with non-occupational asbestos exposure, which the Lacourt study acknowledged [*78] were not reliable.

The Jiang study involved Chinese workers in the <u>asbestos</u> textile industry. That study did not address non-occupational exposure or talc exposure. Thus, its results have absolutely no relevance to at home talc use in the United States and does not support the assertion that "extremely" small levels of exposure increase the risk of mesothelioma.

The third study, Rodelsperger, also involved the study of the occupational factors in the development of mesothelioma. It has no relevance to Weiss' use of talc.

Finally, the Rolland study involved the study of occupations and industries known to involve high levels

⁵⁵ Dr. Moline stated that it took Weiss around two minutes to apply the talc to his body. (2022 Declaration at ¶ 23). Dr. Longo stated that Weiss "took a couple of minutes" to apply Old Spice to his arms, neck, chest, and groin area, citing to Weiss' deposition. The notion that Weiss took two minutes to apply talc seems greatly excessive and is not consistent with Weiss' testimony. Weiss acknowledged that he did not time his applications and conceded that application would have taken less than a minute or two. Weiss testified:

⁵⁶ Dr. Longo calculated that Weiss applied talc 16,608 times from 1958 to 2011. (Longo Declaration at ¶¶ 58-79). He calculated applications of each product as follows: Clubman --180 applications; Brut - 48 applications; Old Spice - 1,980 applications; Johnson & Johnson - 4,320 body applications; Gold Bond - 2,160 body applications; Mennen - 720 body applications; Johnson and Johnson - 4,320 sock and shoe applications; Gold Bond - 2,160 sock and shoe applications; and Desenex - 720 sock and shoe applications. (*Id.*). Dr. Moline assumed this was a sufficient level of exposure to cause Weiss' mesothelioma. She also assumed that Weiss' level of exposure level was higher than others who developed mesothelioma. She did not, however, do any comparative analysis with those who supposedly acquired mesothelioma at lower levels of exposure.

of <u>asbestos</u> exposure, such as plumbers, pipefitters, and sheet metal workers. The conclusions of this study have no relevance to users of cosmetic talc.

During her testimony, Dr. Moline stated that she believed that Mr. Weiss' exposure levels were comparable to the levels discussed in these four studies. There is no scientific, reliable, basis for this conclusion. Indeed, the conclusion belies common sense.

Using data from occupational exposures to purportedly demonstrate that Mr. Weiss had a high enough exposure to be at risk for mesothelioma is disingenuous. Occupational **[*79]** exposures deal with individuals who are repeatedly exposed to <u>asbestos</u> in the workplace, i.e., for 8 or more hours a day, five days a week, over a long period of time. Of course, Mr. Weiss did not have an occupational exposure. Rather, he was arguably exposed to <u>asbestos</u> containing powder for, at most, a minute or two each day, when he applied the talcum powder. None of the studies relied on by Dr. Moline address the levels someone like Mr. Weiss was exposed to.

Indeed, when asked at the <u>Daubert</u> hearing to explain why some studies suggest that talc miners and millers have low rates of mesothelioma, Dr. Moline acknowledged occupational exposures are very different than domestic exposures and cannot be compared. She explained, for example, that exposure conditions are different for miners and millers than for at home talc users. She clearly made the point that comparing workplace and home exposures is fraught with problems. Yet, she relied on studies involving occupational exposure to purportedly prove that Mr. Weiss had significant exposure to **asbestos** in talc.

If, as Dr. Moline stated, Weiss' exposure cannot be compared to talc miners and millers, who worked in talc mines used to produce cosmetic **[*80]** talc, it makes no sense to compare his exposure to workers in Chinese **asbestos** textile plants or to plumbers, sheet metal workers and mechanics. Dr. Moline made no attempt to explain how the range of risk of workers in these occupations compared to Weiss' at home use of talc. There is no scientific or logical basis for such a comparison.

Dr. Moline testified that, when assessing a patient with mesothelioma, the first question is, was there an <u>asbestos</u> exposure? If there was <u>asbestos</u> exposure, she makes the causal connection between that exposure and the mesothelioma. This is hardly a

scientific approach. The fact that a mesothelioma patient was exposed to talcum powder for a brief period of time each day does not establish a causal connection. Dr. Moline's assumption that low levels of cosmetic talc cause mesothelioma is not reliable. It certainly is not scientific evidence.

Dr. Moline acknowledges that the exposure level is critical in establishing causation of disease. The third question in the four-part Welch methodology for evaluating causation of disease is, "Was the individual exposed to this substance at a level where the disease has occurred in other settings?" (2022 Declaration [*81] at ¶ 70). Dr. Moline provides no meaningful or reliable answer to this question.

In analyzing this question for this case, Moline states, in a conclusory fashion, that "there are numerous other individuals with exposure to *asbestos*-containing talc products who have developed malignant mesothelioma." (Id. at ¶ 71). She does not, however, identify even one of these "numerous" individuals. Instead, she adds a long footnote with a string of citations to various studies. (Id. at fn.30). As discussed above, some of the studies she cites are irrelevant to the issue before the Court. Equally important, Dr. Moline provides no analysis of how the exposure levels in the studies help assess Mr. Weiss' exposure level. Finally, the notion that some individuals exposed to talc asbestos got mesothelioma does not prove that the asbestos in the talc caused the mesothelioma. Dr. Moline's conclusion is pure speculation, without any scientific basis.

Dr. Moline acknowledges that one of the critical inquiries is determining if the person in question was exposed to talc at a sufficient level to cause mesothelioma. She then, however, fails to answer the question in a meaningful, scientific manner. Indeed, she [*82] provides only a conclusion, without any reliable basis.

In *Nemeth*, the New York Court of Appeals found that testing conducted by another expert on the levels of the plaintiff's exposures to be unreliable and flawed. <u>194</u> <u>*N.E.3d* at 273</u>. Accordingly, the Court found that Dr. Moline could not rely on that flawed testing. *Id.* Here, Dr. Moline provides no scientific basis for the underlying conclusions about Weiss' exposure levels. It is evident to the Court that Dr. Moline's discussion about the levels of Weiss' exposure is pure speculation.

It appears as if Dr. Moline relied, at least to some extent, on Dr. Longo's conclusions about the level of Mr. Weiss' exposure based, in part, on his shaker

application testing. As noted above, Dr. Longo has provided no reliable information on the level of Mr. Weiss' exposure to *asbestos* in Old Spice, or any of the other products at issue here.

The unreliable, and anecdotal, nature of Moline's opinions is demonstrated by her own statement that "(e)ach non-trivial exposure to <u>asbestos</u> should be considered a contributing factor in the development of malignant mesothelioma." (2022 Declaration at ¶ 28). Dr. Moline admitted that certain <u>asbestos</u> exposures, which she calls "trivial," [*83] would not increase the risk of mesothelioma. At the <u>Daubert</u> hearing, Dr. Moline testified that a "non-trivial" exposure could be "orders of magnitude above background." (FTR at 10:42:31). She would consider a trivial exposure to be, for example, "someone walking by a site that was using maybe an <u>asbestos</u>-containing product." (FTR at 10:42:40).

In Dr. Moline's view, one "non-trivial" application of talcum powder should be considered a contributing factor in the causation of mesothelioma. This statement is absurd and has no scientific rationale. Indeed, Moline appears to make this statement due to her inability to provide any meaningful information on Mr. Weiss' exposure levels, or the necessary minimum exposure levels that can reasonably cause mesothelioma. Since she cannot provide any meaningful information, Dr. Moline simply declares that any "non-trivial" application can cause mesothelioma. Since, any "non-trivial" application can cause mesothelioma, then, according to Dr. Moline, Mr. Weiss' use of Old Spice certainly caused his mesothelioma. There is no reliable scientific basis for these conclusions.

It is obvious that applying talcum powder once, or even several times, would not cause **[*84]** mesothelioma. The problem is that Dr. Moline, and the relevant scientific community, have not provided any meaningful information about the level of exposure is necessary to cause the disease. The conclusion that Mr. Weiss' exposure was sufficient to cause mesothelioma is complete speculation and supported by no scientific data.

The New York Court of Appeals found that Dr. Moline's opinions "did not meet our requirements for establishing exposure to a toxin in an amount sufficient to cause decedent's peritoneal mesothelioma." <u>Nemeth, 194</u> <u>N.E.3d at 271</u>. This Court agrees with that conclusion, as applied to this case. There is no reliable, scientific basis for the conclusion that <u>asbestos</u> in talcum powder causes mesothelioma. Dr. Moline provides no reliable

minimum exposure level. Dr. Moline provides no reliable measure of the level of <u>asbestos</u> exposure that Mr. Weiss was subjected to.

Dr. Moline has failed to provide any foundational basis for her opinion that exposure to <u>asbestos</u> at a level analogous to Mr. Weiss' was shown to be a substantial factor in causing mesothelioma. She has not provided any scientific expression linking Mr. Weiss' "actual exposure to <u>asbestos</u> to a level known to cause mesothelioma." [*85] See <u>Id. at 272</u>. There is far too great of an analytical leap between the data and the opinion proffered by Dr. Moline.

Dr. Moline's conclusion that <u>asbestos</u> in talc caused Weiss' mesothelioma is speculative and inadmissible. Indeed, the conclusion that Mr. Weiss' mesothelioma was caused by Old Spice talcum powder, or any other talc product at issue here, rests solely on the *ipse dixit* of Dr. Moline. Mr. Weiss was exposed to sufficient levels of <u>asbestos</u> to cause mesothelioma because Dr. Moline says so. Mr. Weiss' mesothelioma was caused by the <u>asbestos</u> in Old Spice because she says so. This testimony is unreliable and inadmissible.

MOTION TO EXCLUDE DR. STEVEN COMPTON

Defendants and Novartis have moved to preclude expert testimony from Steven Compton, Ph.D. ("Compton"). The Court has considered the Motion, Response and Reply.

Dr. Compton provided an expert report. Defendants tried to secure deposition dates for Dr. Compton on at least six occasions. No date was provided. On one occasion, plaintiffs' counsel said, "I still owe you a Compton date which I'm working on." Defendants also avow that numerous phone calls were made asking for a deposition date. Dr. Compton was never produced for a deposition. **[*86]**

Plaintiffs' counsel was uncooperative. In cases like this, counsel customarily act cooperatively and provide experts for depositions without the need of subpoena. Experts, however, do not have to appear without a subpoena. Defendants could have subpoenaed Dr. Compton for deposition, but did not do so. Granted, it should not have to come to that. Nonetheless, defendants had no absolute right to depose Dr. Compton, at least without a subpoena. No case law is cited for the proposition that counsel's failure to voluntarily provide an expert for deposition should result in exclusion of the opinion.

The Motion is denied.

SHULTON'S MOTION FOR SUMMARY JUDGMENT

Shulton has moved for summary judgment. Proctor & Gamble and Wyeth joined in Shulton's Motion. The Court has considered the Motion, Response and Reply, as well as the arguments of counsel.

Background

Plaintiffs' Complaint alleges that Weiss was stricken with mesothelioma. He contends that it was caused, at least in part, by **asbestos** exposure resulting from the use of talcum powder products between 1958 and the 2000s. Plaintiffs bring claims for negligence, strict products liability, civil conspiracy, gross negligence, aiding and abetting, **[*87]** negligence per se, fraud, punitive damages⁵⁷, and loss of consortium.

Plaintiffs assert that talc and <u>asbestos</u> are minerals formed naturally under the same conditions. As such, <u>asbestos</u> is allegedly often found intergrown as an accessory mineral within talc deposits.

The <u>asbestos</u> in mined talc cannot be filtered out during the manufacturing process. Thus, the <u>asbestos</u> is allegedly carried over into the finished talcum powder products.

The <u>asbestos</u> allegedly present in talcum powder purportedly causes mesothelioma. Plaintiffs claim that the repeated use of such powders allegedly caused that condition in Mr. Weiss.

Shulton manufactured and sold Old Spice talcum powder from 1938 until the company was purchased by Proctor & Gamble in approximately 1990. The product was discontinued in 1992.

Mr. Weiss claims to have used a variety of talcum powder products, including Old Spice. Mr. Weiss testified to "occasionally" using the Old Spice talcum powder. Mr. Weiss also said that Old Spice "wasn't [his] main product to use." A Johnson & Johnson product was his main product choice.

Mr. Weiss also testified that he used Old Spice talcum powder once a day, three to four times a week, from

1979 to the early **[*88]** 1990s. (See Shulton Statement of Facts at **¶** 4). He claims he would go through a bottle of Old Spice at least once a month.⁵⁸ In the mid-1990s, when the product became harder to find, he switched to another product.

Based on Weiss' testimony, Dr. William Longo calculated that, from 1979 to 1991, Mr. Weiss applied Old Spice talcum powder approximately 1,980 times. (Longo Declaration at ¶¶ 60-61, 63). Dr. Longo estimated that Mr. Weiss used 141 bottles of Old Spice during that period. (*Id.* at ¶ 81). After calculating Mr. Weiss' exposure to other talc products, Dr. Longo determined that Mr. Weiss' exposure to Old Spice powder accounted for 10.7% of his total exposure to talcum powder. (*Id.* at ¶ 93.)

Shulton contends that there is no evidence Old Spice talcum powder was a substantial contributing factor to the cause of Weiss' mesothelioma. Plaintiffs claim, however, that the use of talc can expose the user to hundreds of thousands to millions of <u>asbestos</u> fibers per gram of talc. Dr. Moline opined that the talcum powders at issue here, including that sold by Shulton, were a substantial factor in Mr. Weiss's mesothelioma.⁵⁹

Expert Opinions

Testing of Old Spice for Asbestos

Dr. Longo's laboratory **[*89]** tested 36 samples from 24 containers of Old Spice talc powder products. Dr. Longo tested only a single container of Old Spice talc powder from 1987-1988 vintage. (Longo Declaration at **¶** 47).

In exhibit 14 to his report, Dr. Longo indicated that two of the samples tested were of a 1966 vintage, more than a decade before Weiss began using Old Spice. (See Longo Declaration at Ex. 14). Exhibit 15 is a "Corrected

⁵⁷ Punitive damages, however, is not a cause of action. It is a remedy.

 $^{^{58}}$ Mr. Weiss also testified that he used Old Spice talcum powder once a month "from 1979 until 2011." (Weiss depo. at 44). That cannot be accurate, because Weiss stated that he switched to another product in the mid-1990s, and plaintiffs acknowledged the product was discontinued in 1992. (Plaintiffs' SOF at ¶ 16). Plaintiffs' expert, Dr. Longo, only ostensibly examined Mr. Weiss' exposure to Old Spice from 1979 to the early 1990s. (See Longo Declaration at ¶¶ 60-61, 81).

⁵⁹ Rulings on defendants' motions to preclude the opinions of Dr. Longo and Dr. Moline are set forth above.

Shulton Product List," which indicated that three samples were from approximately 1966-1967, one sample was from 1940, another was a Canadian sample from approximately 1973, and yet another was an Australian and New Zealand sample from approximately 1997. In his report, and Exhibits 14 and 15 thereto, Dr. Longo did not state the vintage of the other Old Spice talc products he and his lab purportedly tested. With the exception of the one 1987/1988 container, there is no evidence Dr. Longo tested another Old Spice talcum powder product sold in the U.S. during the time Mr. Weiss used the product.

Dr. Longo reported that chrysotile <u>asbestos</u> was found in the 1987/88 container at a concentration of 1.6 to 2.5 percent. (*Id.* at ¶ 47). His report did not give the concentrations of <u>asbestos</u> [*90] found in the other tested Old Spice samples.

Dr. Longo concluded that his lab identified regulated <u>asbestos</u> in 28 of 36 samples (78%) of the Old Spice powder products. On the samples tested for chrysotile, Dr. Longo and his colleagues identified regulated chrysotile **asbestos** in 20 of 20 samples. (*Id.* at ¶ 49).

Shulton's expert, Dr. Poye, tested two unopened containers of Old Spice. In one sample, he found tremolite <u>asbestos</u>.

Plaintiffs claim that other independent testing confirmed the presence of <u>asbestos</u> in Old Spice. In 1968, Johns-Manville Research and Engineering Center reported finding Old Spice powder positive for trace tremolite. This was more than a decade before Mr. Weiss began using Old Spice.

In the early 1970s, Dr. Seymour Lewin, a chemist at New York University, reported that he detected 1% tremolite <u>asbestos</u> in Shulton's Old Spice product. In 1973, WCD sent six samples of talc, including North Carolina talc, which is where Old Spice talc originated, to Fullam Laboratory. The Fullam Lab found <u>asbestos</u> in all six talc samples. Again, these studies were all conducted years before Mr. Weiss started using Old Spice.

Dr. Longo's Airborne Shaker Application Testing

Dr. Longo's lab [*91] conducted a below the waist application study using Johnson's Baby Powder to "determine airborne <u>asbestos</u> amphibole fiber exposure an individual would experience during application of talcum powder." (*Id.* at ¶ 50). Longo claims that the test

performed was consistent with the way that Mr. Weiss used talcum powder products. (*Id.*).

Dr. Longo did not perform a shaker powder application test on Old Spice. He asserted that Old Spice used the same Italian talc used in Johnson's Baby Powder. (*Id.*). Longo's statement that Old Spice talc came from Italian mines appears to be incorrect.⁶⁰ Longo stated that he tested the container of an Italian talc vintage that had been found to contain the highest concentration of tremolite **asbestos** to find the "worst case scenario" exposure assessment. (*Id.* at fn.24).

Dr. Longo stated that the shaker test results and "similar representative data" show that "an individual who used talcum powder products with a shaker application can have a significant exposure to airborne amphibole <u>asbestos</u> fibers." (*Id.* at ¶ 52). He further stated that the "magnitude of the <u>asbestos</u> fiber exposure levels will depend on the concentration level of the <u>asbestos</u> in the talcum powder [*92] products (e.g., as the concentration of <u>asbestos</u> in the product increase, the greater the concentration will be of the respirable airborne fibers)." (*Id*).⁶¹

Dr. Longo's Opinions

Dr. Longo opined that individuals who used Old Spice, and the other talcum powder products used by Mr. Weiss, would have, more likely than not, been exposed to fibrous amphibole and chrysotile **asbestos**, especially with repeated use. He concluded that such exposure would be substantially above background levels. As noted above, Dr. Longo's conclusions about the purported levels of Mr. Weiss' exposure are unreliable and would not be of assistance to the jury. Those conclusions are inadmissible.

Dr. Moline's Opinions

 60 As discussed above, Dr. Longo stated elsewhere in his Declaration that the talc in Old Spice was sourced from a mine in North Carolina. (Longo Declaration at ¶ 92). Plaintiffs also acknowledged that the talc used in Old Spice was sourced from North Carolina mines. (Plaintiffs' SOF at ¶¶ 19-20).

⁶¹ Dr. Longo did not state how high the <u>asbestos</u> concentrations were in the Johnson & Johnson product for his "worst case scenario" test. There is no evidence that Old Spice talcum powder products contained the same high level of <u>asbestos</u> that was allegedly present in Dr. Longo's "worst case scenario."

As discussed above, Dr. Moline opined that <u>asbestos</u> in talcum powder causes mesothelioma and that Mr. Weiss' use of Old Spice, and the other products at issue in this case, caused his mesothelioma. The conclusion that <u>asbestos</u> in talcum powder causes mesothelioma, however, has no general acceptance in the scientific community. Moreover, Dr. Moline provides no reliable information about Mr. Weiss' exposure levels or the requisite level of talcum powder exposure necessary to cause mesothelioma. Her conclusion [*93] that Mr. Weiss' use of Old Spice, and any other product at issue here, rests solely on Dr. Moline's *ipse dixit* and is inadmissible.

Dr. John Maddox's Opinions

Dr. John Maddox, plaintiffs' pathologist expert, issued an 85-page report. He opined that Mr. Weiss' cumulative **asbestos** exposures caused his mesothelioma. (Plaintiffs' Ex. R, Maddox Report at 84-85). According to Dr. Maddox, "[i]t is widely reported in scientific, medical, and government reports that very low exposures to **asbestos**, e.g., days and weeks, have been attributed as the cause of mesothelioma, and scientists have not been able to determine a threshold of minimal exposure below which numerous mesotheliomas will not occur." (*Id.* at 20).

Dr. Maddox recognized, however, that mesothelioma is a dose responsive disease, meaning that the greater the dose of *asbestos*, the greater the risk for developing mesothelioma. (Id. at 52). "Simply stated, the more someone is exposed to *asbestos*, the greater their risk for the development of mesothelioma. To illustrate this point, occupational asbestos product users have a higher rate of mesothelioma than bystanders who don't products: occupational directly use asbestos bystanders have a [*94] higher rate of mesothelioma than the families of asbestos product users; and the lowest rate of mesothelioma is in persons that have mesothelioma from living close to a major source of asbestos exposure, like a shipyard, an asbestos mine, or an asbestos factory." (Id. at 53).

According to Dr. Maddox, "there is a linear dose response relationship between the amount of <u>asbestos</u> to which an individual is exposed and the risk of developing mesothelioma. This concept is decades old and is generally accepted in the medical and scientific communities. The linear dose-response relationship attempts to predict the expected rates of mesothelioma at various exposure levels over various periods of time."

(*Id.* at 53). On page 54 of his report, Dr. Maddox provided a chart, which he says illustrates the "relative risk," demonstrating mathematically that, with increasing exposure, the number of people who develop mesothelioma likewise increases. (*Id.* at 54).

Dr. Maddox reviewed Weiss' claimed talc usage and other potential asbestos exposures and opined that "Mr. Weiss suffered exposures to asbestos from his own personal use of *asbestos*-containing talcum powder, and possibly from secondary exposure to [*95] his wife's cosmetic talc use and possibly from working with agricultural products containing vermiculite with tremolite asbestos impurities. ... These same cumulative asbestos exposures caused his malignant mesothelioma." (Id. at 4). Specifically, he opined that Weiss' exposures to "the following asbestos-containing (AC) products were high, prolonged and repetitive and were therefore substantial contributing factors in the causation of his mesothelioma. ...

- AC talcum powder, including all of the following: Gold Bond, Johnson & Johnson, Desenex, Mennen, Old Spice, and Clubman; likely others, as well.
- Possible/potential secondary exposure to his wife's cosmetic talcum powders.
- Possible/potential to AC vermiculite, and possibly other gardening products."

(*Id.* at 22). He did not exclude any other <u>asbestos</u> to which Weiss may have been exposed. (*Id.*).

Dr. Maddox's opinion is essentially that Weiss' mesothelioma was caused by the cumulative effect of all of his possible **asbestos** exposures during his lifetime. (*Id.* at 84-85). Dr. Maddox assumed that Weiss' exposure to **asbestos**-containing products was "high," without actually assessing his relative risk based on the formulas set out in his **[*96]** report. Dr. Maddox also assumed that the Old Spice and the other talc products Weiss used contained **asbestos**. He did no mathematical or comparative analysis of Weiss' risk. He also did no analysis specific to Old Spice.

Dr. Maddox recognized that "in order to prove a causal association in comparative epidemiology, an exposed person is compared to an unexposed person." (*Id.* at 64). Dr. Maddox did not cite to any study comparing persons exposed to <u>asbestos</u> allegedly in talc to unexposed persons. Indeed, there is no evidence before this Court demonstrating that the incidence of mesothelioma is higher in users of talcum powder products than persons who do not use such products.

Dr. Maddox also recognized that the causal link between talc usage and mesothelioma has not been scientifically established. Dr. Maddox is a coauthor of the Emory case series of 75 mesothelioma patients who used talc. (*Id.* at 14).⁶² The Emory case series examined 75 subjects, whose only known exposure to **asbestos** was cosmetic talc. The study stated that it made no effort "to reconstruct levels of exposure but all subjects had been repeatedly exposed over many years."⁶³ Emory at 486. The study acknowledged that it was limited because **[*97]** it was "retrospective and uncontrolled," and the cases were submitted for litigation.

The study further stated that "[t]he findings of the present and other recent studies suggest that cosmetic talc *may* be a cause of malignant mesothelioma. Large-scale controlled studies will be required to assess the prospective risk of developing mesothelioma following repeated exposures to talc." *Id. at 489* (emphasis added). Dr. Maddox did not cite a peer-reviewed scientific study establishing a causal link between *asbestos* in talc to cases of mesothelioma. The 2020 case series **[*98]** only speculates that there "may" be a causal link.

Discussion

Plaintiffs must prove that <u>asbestos</u> in Old Spice was a substantial factor in causing mesothelioma.

To prevail, plaintiffs must prove that Old Spice was the proximate cause of Weiss' mesothelioma. Proximate

Unlike industrial or occupational exposure to <u>asbestos</u>, where materials have been regulated, exposure to <u>asbestos</u> in cosmetic talc has not been widely reported or recognized within the medical community or to the public. Cosmetic talc products are most frequently used by women in the United States, and while the incidence of mesothelioma in women is less than in men, the majority have previously been reported as "idiopathic," indicating no recognized source of <u>asbestos</u> exposure. The present study supports the contention that <u>asbestos</u> exposure through the use of cosmetic talc accounts may account for an uncertain percentage of these cases.

cause is "that which, in a natural and continuous sequence, unbroken by any efficient intervening cause, produces an injury, and without which the injury would not have occurred." Salic, 224 Ariz. at 418, ¶ 13 (quoting Robertson v. Sixpence Inns of Am., Inc., 163 Ariz. 539, 546 (1990). When multiple tortfeasors are alleged to have created an indivisible injury, the plaintiff is "required to prove only that each defendant's conduct was 'a substantial factor' in causing the injury." Id. at 420, ¶ 21. "The plaintiff does not need 'to introduce evidence to establish that the negligence resulted in the injury or the death, but simply that the negligence increased the risk of injury or death." Id. (quoting Ritchie v. Krasner, 221 Ariz. 288, 287-88, ¶ 23 (App. 2009)). The "tortfeasors are left to apportion damages among themselves when causation is potentially indeterminable." Id. at 418, ¶ 15 (quoting Piner v. Superior Court, 192 Ariz. 182, 187, ¶ 18 n. 3 (1998). In such cases, plaintiffs will be allowed to recover if they can show that multiple defendants "contributed to the final result," in which case "the burden of proof on apportionment is on them." Id. at 419, ¶ 15 (quoting Piner, 192 Ariz. at 189, ¶ 30).

In [*99] an asbestos case, a plaintiff must provide evidence that the subject product contained asbestos. See Metropolitan Property & Cas. Inc. Co. v. Del Webb's Coventry Homes, Inc., No. 1 CA-CV 06-0630, 2007 WL 5448133, at ¶¶ 19-20, 26-27 (Ariz. App. Oct 18, 2007); Collin v. Calportland Co., 228 Cal App. 4th 582, 586 (2014). Plaintiffs "cannot prevail against [a defendant] without evidence that [the plaintiff] was asbestos-containing exposed to materials manufactured or furnished by [the defendant] with enough frequency and regularity as to show a reasonable medical probability that this exposure was a factor in causing the plaintiff's injuries. Whitmire v. Ingersoll-Rand Co., 184 Cal. App. 4th 1078, 1084 (2010); Rutherford v. Owens-Illinois, Inc., 16 Cal. 4th 953, 982 (1997) ("[T]he plaintiff must first establish some threshold exposure to the defendant's defective *asbestos*-containing products and must further establish in reasonable medical probability that a particular exposure or series of exposures was a 'legal cause' of his injury, i.e., a substantial factor in bringing about the injury.") (emphasis in original). Causation must be tied to the defendant's product and not just the product in general. Rost v. Ford Motor Co., 151 A.3d 1032, 1048 (Pa. 2016) (finding that causation must "[f]ocus on the precise nature of the plaintiff's exposure to the defendant's product, not on other asbestoscontaining products").

⁶² Dr. Moline cited this study in her Declarations.

⁶³ The Emory case series acknowledged that some cases of mesothelioma are idiopathic. It stated:

Plaintiff must provide expert testimony showing causation, "unless a causal relationship is readily apparent to the trier of fact." Salica, 224 Ariz. at 419, ¶ 16 (quoting Gregg v. Nat'l Med. Health Care Servs., Inc., 145 Ariz. 51, 54 (App. 1985). Plaintiffs bear the burden [*100] of proving both general and specific causation. McClain v. Metabolife Int'l Inc., 401 F.3d 1233, 1239 (11th Circ. 2005). "General causation addresses whether a substance is 'capable of causing a particular injury or condition in the general population,' while specific causation addresses whether a substance 'caused a particular individual's injury." Mason v. Wasatch prop. Mgmt., No. C20035581, 2012 WL 12964636, *2 (Ariz. Super Oct. 9, 2012 (quoting Plunkett v. Connecticut General Life Ins. Co., 285 S.W.3d 106 (TX App. 2009). "If plaintiff is unable to produce evidence of specific causation, i.e., exposure to the toxin and exposure at levels that would result in injury, the claim fails." Abad v. Wasatch Property Management, No. 2 CA-CV 2006-0109 at ¶ 7 (Ariz. App. June 29, 2007) (slip op. not available on Westlaw).

In an <u>asbestos</u> case, the expert causation testimony must be specific to "the dose of <u>asbestos</u> attributable to a particular defendant." *Carpenter v. 3M Co.*, No. CV 20-11797-MWF (MAAAx), 2022 WL 17885688, *11 (C.D. Cal. Dec. 13, 2022). There must be expert testimony connecting the exposure to a particular defendant's product, as documented by plaintiffs' fact witnesses, with the amount of <u>asbestos</u> likely emitted from that specific exposure. *Id.* at *17. A precise "defendant-specific dose", however, is not required. *Id.* at *16.⁶⁴ Rather, "a rough quantification," beyond speculation, as to the actual extent of plaintiff's exposure to defendant's product is sufficient. *Id.* at *17.

The expert cannot simply opine that all <u>asbestos</u> exposures were a substantial factor in causing the disease. *Id.* Rather, the expert must provide testimony [*101] that the relative dose of <u>asbestos</u> from a particular defendant was significant enough to be a substantial factor in causing the disease. *Id.; see also,* <u>Rutherford, 16 Cal.4th at 975</u> (to show that defendant's product was a substantial factor in disease causation, a

plaintiff must establish some threshold exposure to the defendant's product by "[t]aking into account the length, frequency, proximity, and intensity of exposure, the peculiar properties of the individual product, [and] any other potential causes to which the disease could be attributed.").

To prevail on their claim against Old Spice, plaintiffs must prove, through expert testimony, that Old Spice contained <u>asbestos</u>. Showing that <u>asbestos</u> was present in Old Spice, however, is not enough. Plaintiffs must establish, through competent and reliable expert testimony, that Weiss' exposure to Old Spice was a substantial factor, by demonstrating that his exposure to <u>asbestos</u> in Old Spice was at a sufficient level to contribute to the cause mesothelioma.

Plaintiffs have failed to demonstrate that Mr. Weiss' use of Old Spice was a substantial factor in the development of mesothelioma.

As set forth in the rulings on the admissibility of the opinions of Dr. Moline [*102] and Dr. Longo, there are serious questions about whether talcum powder at issue even contains asbestos.65 Dr. Longo's methodology is, in general, a methodology he developed that may not have general acceptance in the scientific community. He arguably developed that methodology with an eye toward being able to claim in litigation that talc does contain asbestos. Nonetheless, Dr. Longo has provided sufficient evidence that his methodology has some support in the literature and scientific community. The Court has concluded that Dr. Longo's general opinion, that the Old Spice talc contains *asbestos*, is sufficiently reliable to be admissible. Plaintiffs, however, have provided no proof that the Old Spice product played a substantial role in Mr. Weiss' mesothelioma.

The general causation opinion of Dr. Moline, that <u>asbestos</u> in talc causes mesothelioma, is unreliable and inadmissible. There certainly is not a consensus in the scientific community that <u>asbestos</u> in talc causes mesothelioma. Far from it. Indeed, Dr. Maddox admitted as much. Dr. Moline testified that no such scientific study has been conducted.

The Court has not been provided with one peer reviewed epidemiological study that has [*103] definitively established a causal link between talc and

⁶⁴ Plaintiffs claim that Arizona law does not require a dose calculation as part of the causation analysis, citing <u>Salica, 224</u> <u>Ariz. 414</u>. <u>Salica</u>, however, did not talk about whether specific dosage information was necessary. Rather, <u>Salica</u> requires that plaintiffs present non-speculative expert testimony showing that Weiss was exposed to high enough levels of <u>asbestos</u> in each defendant's product such that his risk of mesothelioma was increased.

⁶⁵ Plaintiffs acknowledged at oral argument that not all talc products contain <u>asbestos</u>.

mesothelioma. The Emory case series coauthored by Dr. Maddox, confirmed that, while <u>asbestos</u> in talc may case mesothelioma, the causal link has not been scientifically established.

During oral argument, the Court asked counsel for plaintiffs if there was any reliable evidence in the scientific literature supporting the notion that **asbestos** in talcum powder causes mesothelioma. In response, plaintiffs' counsel referred to no scientific studies. Rather, counsel simply stated that, since it was a given that **asbestos** causes mesothelioma, there is no need to demonstrate that **asbestos** in talc causes mesothelioma. This is an inadequate response, which the Court takes as a concession that there are in fact no definitive studies finding a causal link between talcum powder and mesothelioma.

As noted in the Court's ruling on the Motion to Exclude the testimony of Dr. Longo, there is great debate as to whether the "fibers" ostensibly identified in some talcum powders are **asbestos**. Even if, however, those fibers are considered "asbestiform" in nature, there simply is no evidence that the **asbestos** in talcum powder causes mesothelioma.

The evidence **[*104]** before the Court suggests that the **asbestos** ostensibly identified in talc is typically found in small or "trace" amounts. There is no evidence that the small or trace amounts of fibers from talcum powder cause mesothelioma.

Indeed, as Dr. Kenneth Mundt, defense expert, points out:

• There is no epidemiological evidence that use of cosmetic talc products increases the risk of mesothelioma. No study has compared the rate of mesothelioma in users of cosmetic talc products with individuals who do not use cosmetic talc products. (See Mundt Report at ¶¶ 7-11).

• Even if negligible amounts of <u>asbestos</u> were present in talc products, it is not sufficient to cause mesothelioma. Although clinicians have hypothesized about the cause, there are no epidemiological studies linking cosmetic talc to mesothelioma. Other factors may increase the rate of mesothelioma, including erionite, ionizing radiation, tuberculosis, family history of cancer and genetic mutations. (Mundt Report at ¶¶ 28, 68-78, 106-107).

Plaintiffs do not provide any evidence disputing these

points from Dr. Mundt. The undeniable fact of the matter that there is no consensus in the scientific community that the fibers in talc cause mesothelioma. [*105]

Moreover, although not dispositive, Dr. Mundt also points out that:

• Epidemiological studies report that hairdressers and barbers (i.e., likely occupational users of cosmetic talc products) have no increased risk of mesothelioma. Two large studies suggested that persons employed as hairdressers and barbers were not at an increased risk of mesothelioma, unlike individuals in occupations exposing them to amphibole <u>asbestos</u>, such as plumbers, shipbuilders, and insulators. (See Mundt Report at ¶¶ 42-43, 82, 108).

· Epidemiological studies demonstrate that those who are most heavily exposed to talc (i.e., talc miners and millers) are not at increased risk of malignant mesothelioma and, in fact, have a slightly lower incidence of mesothelioma than the general population. Workers engaged in talc mining and processing historically have had the greatest occupational exposure to talc. Respirable dust counts obtained from mining operations routinely exceeded 100 million particles per cubic foot prior to 1955 and were above 1 mppcf into the 1970s. No increased rate of mesothelioma, however, was observed in talc miners and processors. Studies of talc workers in Vermont, Norway, France, and Austria [*106] showed no cases of mesothelioma. (Mundt Report at ¶¶ 84-103).

It is in fact undisputed that there is no definitive study establishing any causal link between fibers in talcum powder and an increased risk of mesothelioma. Plaintiffs' own expert, Dr. Maddox admitted that "large scale controlled studies will be required to assess the prospective risk of developing mesothelioma following repeated exposure to talc." No such large-scale studies have been presented to the Court. In fact, no controlled studies examining the connection between fibers in talcum powder and mesothelioma have been provided at all.

In any event, plaintiffs have clearly not demonstrated that Old Spice, or any of the products at issue here, caused Mr. Weiss' mesothelioma. Plaintiffs have provided no reliable information as to the exposure levels Mr. Weiss was subjected to. Plaintiffs provided no scientific information on the requisite level of exposure that creates a risk of causing mesothelioma. There is no reliable basis for any conclusion that Mr. Weiss was subjected to a sufficient level of <u>asbestos</u> in talc to create a realistic risk of causing mesothelioma.

Mr. Weiss' testimony about the frequency of his Old Spice **[*107]** use was contradictory. He testified that he only used Old Spice "occasionally" and that it was not his "go to" product. He also said, however, that he used Old Spice once a day, three to four time a week, from 1979 to the early 1990s. This hardly constitutes "occasional" use.

Nonetheless, the experts provided no reliable information on the <u>asbestos</u> exposure levels that Mr. Weiss was subjected to, as a result of Old Spice use, or any of the other products at issue here. Dr. Longo's shaker study did not involve the Old Spice product. Dr. Longo apparently believes, however, that the testing on the Johnson's Baby Powder was reliable in assessing Old Spice because both talc products came from Italian mines. This is not correct.

Dr. Longo simply concluded that the application method used in his shaker study was similar to the manner in which Mr. Weiss used Old Spice. Dr. Longo provided no information that supports that conclusion. There is in fact no reliable information before the Court that Dr. Longo's shaker study provides a reliable method for assessing Mr. Weiss' exposure levels.

Dr. Longo only concluded that Mr. Weiss' exposure levels were "substantially above background." As noted in **[*108]** the accompanying ruling on the admissibility of Dr. Longo's opinion, this conclusion lacks any reliable foundation. Dr. Longo does not define "substantial." The statement that Mr. Weiss was allegedly exposed to levels of <u>asbestos</u> in talc "substantially above background" would not be of assistance to the jury and could lead a jury to conclude that the existence of <u>asbestos</u> "substantially above background" necessarily means that such exposure materially increases the risk of developing mesothelioma, which has not been established.

Dr. Moline opined, based on various studies, that Weiss' **asbestos** exposure was somewhere between 80 times and 38,000 times above background. Dr. Moline provided no basis for linking Mr. Weiss' use of Old Spice, or any of the talc products at issue here, to these purported exposure levels.

Dr. Moline cited no study, test or methodology that somehow tied the numbers she cited to the usage by Mr. Weiss of Old Spice, or any products at issue here. Further, the exposure levels referred to by Dr. Moline are based on a single application of one minute or less. At the time of application, Mr. Weiss may have been briefly subjected to exposure levels significantly above [*109] background. This proves nothing.

Dr. Longo opined that Weiss applied Old Spice approximately 1,980 times. If so, Weiss' exposure to Old Spice, during and immediately after application, would have been a matter of hours over the course of his lifetime.⁶⁶ While Mr. Weiss may have been exposed to "high" levels of <u>asbestos</u> for brief moments when applying the talcum powder, no information whatsoever has been provided as to the ongoing level of exposure in between applications. There is no scientific basis for concluding that the brief exposure to Old Spice talcum powder dust once a day caused Mr. Weiss' mesothelioma. Indeed, such a conclusion rests on pure speculation.

Dr. Moline provided no information as to the level of talcum powder exposure that is necessary to put an individual at risk for mesothelioma. Rather, she simply concluded, without any scientific support, that Mr. Weiss' exposure was sufficient to put him at risk. There is no evidence, however, that Mr. Weiss was, in fact, exposed to a sufficient level of **asbestos** to put him at risk for mesothelioma. There is certainly no reliable basis for concluding that the mesothelioma contracted by Mr. Weiss was caused by the Old Spice talcum **[*110]** powder.

At oral argument, plaintiffs' counsel asserted that there are epidemiolocal studies showing that extremely small levels of <u>asbestos</u> exposure increase the risk of occurrence of mesothelioma. He referred to four studies cited by Dr. Moline in ¶ 17 of her 2023 Declaration. According to Dr. Moline, these studies demonstrate the "minimum lifetime exposure ranges sufficient to cause mesothelioma." (2023 Declaration at ¶ 17).

The Rolland study, for example, showed that an exposure range of >0 to 0.07 f/yr resulted in a 2.8-fold increase in risk. The Jiang study found a 28-fold increase in risk with exposure levels of >0 - 0.5 f/yr. Dr. Moline concluded that "[w]ith each small increase, these reported exposure ranges all demonstrate more than a doubling of the risk of mesothelioma." (*Id.*).

⁶⁶ As discussed above, Mr. Weiss testified that it took him a minute or two to apply the Old Spice. This generic reference appears to overstate the amount of time it would reasonably take to apply the powder.

Dr. Moline's inclusion of these studies to support her conclusion that Weiss' exposure to <u>asbestos</u> in talc was at a level high enough to put him at risk of mesothelioma is misleading, at best, and dishonest, at worst. None of the four aforementioned studies has any bearing on whether Mr. Weiss' application of talcum powder caused him to be exposed to sufficiently high levels of **asbestos** to cause mesothelioma. [*111]

For instance, the Lacourt study involved both occupational and non-occupational exposures. In her report, however, Dr. Moline cited only to the analysis and conclusions of the occupational exposure subjects, which is completely irrelevant to Mr. Weiss' nonoccupational use of talc.

Dr. Moline copied the portion of Table 4 of the Lacourt study, which shows that men with occupational **asbestos** exposure have a 4- to 8-fold increase at levels of >0 - 1 f/yr. Of course, Mr. Weiss' exposure to **asbestos** from talcum powder was not an occupational exposure.

Dr. Moline's report did not even discuss the Lacourt study's findings on men with non-occupational <u>asbestos</u> exposure. Indeed, the Lacourt study acknowledged that its findings on non-occupational exposure were not reliable, stating that "[a]s in most case-control studies, the major limitation of this study is the retrospective assessment of exposure. While we are confident about the reliability of the occupational and para-occupational <u>asbestos</u> exposure assessment, this is not the case for domestic and environmental <u>asbestos</u> exposure."

Dr. Moline also failed to mention that Lacourt only looked at occupational exposures of more than one year. As **[*112]** shown on Table 4, workplace exposures between 1 and 10 years had an ostensible 7.9-fold increase in mesothelioma cases.

Using data from occupational exposures to purportedly demonstrate that Mr. Weiss had a high enough exposure to be at risk for mesothelioma is disingenuous. Occupational exposures deal with individuals who are repeatedly exposed to <u>asbestos</u> in the workplace, i.e., for 8 or more hours a day, five days a week, over a long period of time. Of course, Mr. Weiss did not have an occupational exposure. Rather, he was arguably exposed to <u>asbestos</u> containing powder for, at most, a minute or two each day, when he applied the talcum powder. None of the studies relied on by Dr. Moline address the exposure levels someone like Mr. Weiss was exposed to.

Dr. Moline acknowledged at the <u>Daubert</u> hearing that occupational exposures of talc miners and millers are not comparable to at home users of cosmetic talc. It stands to reason then that non-talc occupational exposures are even less analogous to at home talc users.

Even the non-occupational exposure data in the Lacourt study is not similar to Weiss' situation, for several reasons. First, the study did not involve subjects exposed to talc. Rather, **[*113]** the non-occupational exposures were activities such as "home improvements, and brake and clutch repairs." Second, the study only included 9 men with non-occupational exposure and 18 control group men. The sample size was extremely small. Thus, Lacourt is not, as represented by counsel, an epidemiologic study establishing that "extremely" low levels of <u>asbestos</u> exposure increases the risk of mesothelioma. Indeed, as noted above, the authors admitted that they had no confidence in the reliability of the data for domestic exposures.

The Jiang study provides even less support for Dr. Moline's opinions. Jiang involved a study of the incidence of mesothelioma in workers engaged in the Chinese <u>asbestos</u> textile industry (mainly using hand-spinning chrysotile). The study did not consider non-occupational exposure. Dr. Moline fails to mention in her report the Jiang study's finding, that there was the 28-fold increase in mesothelioma, was found in subjects who had several years of on-the-job exposure. Several years of on-the-job exposure bears no relationship to Mr. Weiss' use of talcum powder. This study in no way supports the claim that "extremely" small levels of exposure increase the risk [*114] of mesothelioma. Weiss' exposure was, at most, a minute or two a day.

The third study, Rodelsperger, also involved the study of the occupational factors in the development of mesothelioma and on the exposure to man-made vitreous fibers. An analysis of occupational factors, and an analysis to exposure to man-made vitreous fibers, are irrelevant here.

Finally, the "aim" of the Rolland study was to analyze the risk of mesothelioma according to occupations and industries. The occupations included plumbers, pipefitters, sheet metal workers, and the industries studied included ship repair, <u>asbestos</u> products, and metal products. Only the results of occupational exposures were presented in the report. The conclusions of this study have no relevance to users of cosmetic talc. Dr. Maddox did no analysis specific to Old Spice. He opined only as to the cumulative effect of all <u>asbestos</u> exposures, including the various talc products, to which Weiss was exposed. Although he concluded that Weiss' exposure to <u>asbestos</u> was high, he did no comparative risk analysis to reach that conclusion. Dr. Maddox did no specific analysis of the exposure levels caused by Old Spice, or any of the products at issue here. [*115] Dr. Maddox's opinion that talc contributed to Weiss' mesothelioma is pure speculation. There is no scientific basis for his opinion that Old Spice contributed to the cause of Weiss' disease.

Indeed, Dr. Maddox admits that the notion that <u>asbestos</u> in talcum powder causes mesothelioma has not been established in the scientific community. He acknowledges that a proper analysis involves comparing people with mesothelioma to people without mesothelioma. Yet, no such study has been provided.

Moreover, Dr. Maddox admits that the incidence of mesothelioma being caused by talcum powder involves a dose-response analysis. He acknowledges that the higher the "dose," the higher the risk. Yet, neither Maddox, nor any other expert, provides any meaningful information about the Mr. Weiss' exposure level or the necessary level of exposure that puts a person at a realistic risk of developing mesothelioma.

As noted above, there must be some reliable information in the record that supports the notion that the product in question subjected the plaintiff to exposure levels that were significant enough to play a substantial role in the development of mesothelioma. There simply is no such evidence in this record **[*116]** with respect to Old Spice, or any of the products at issue. Neither Dr. Longo, Dr. Moline nor Dr. Maddox have provided any reliable basis for concluding that the use of Old Spice subjected Mr. Weiss to an exposure level of **asbestos** that put him at risk for mesothelioma. None of the experts have any reliable basis for the conclusion that Old Spice, or any of the other products at issue, caused Mr. Weiss' mesothelioma.

Negligence and Gross Negligence Claims

Plaintiffs' failure to demonstrate that the <u>asbestos</u> in talc caused Mr. Weiss' mesothelioma is fatal to plaintiffs' claims for negligence and gross negligence. Summary judgment is granted on those claims.

A prima facie case of strict product liability is established by showing that when the product left the defendant's control, it was in a defective condition that made it unreasonably dangerous, and the defect was a proximate cause of plaintiffs' injuries. Jimenez v. Sears, Roebuck & Co., 183 Ariz. 399, 402 (1995). Causation is also an element of a strict liability/failure to warn claim. Gosewisch v. American Honda Motor Co., Inc., 153 Ariz. 400, 403 (1987) (superseded by A.R.S. § 12-683 with respect to affirmative defenses in products liability actions). "[A] plaintiff may show that the injury proximately resulted from the failure to [*117] warn, or from an inadequate warning, by evidence that had a proper warning been given, he would not have used the product in the manner which resulted in his injury, or by evidence that certain precautions would have been taken that would have avoided the accident." Id. (quoting W. Kimble & R. Lesher, Products Liability § 257, at 296 (1979)).

Plaintiffs have not established that Old Spice was unreasonably dangerous. As such, there was no duty to warn. Moreover, plaintiffs have not proven that the purported dangerous product caused plaintiffs' injuries. Because plaintiffs have not provided adequate evidence that Old Spice was a substantial cause of Weiss' mesothelioma, plaintiffs also cannot show that any warning about the product would have changed the result. Summary judgment is also granted on this claim.

The Various Other Claims

<u>Fraud</u>. Plaintiffs must prove that the defendants made a false statement that plaintiffs relied on and that such reliance was the proximate cause of the injury. <u>Davis v.</u> <u>First Nat'l Bank of Arizona, 124 Ariz. 458, 465 (App.</u> 1979).

<u>Conspiracy</u>. A civil conspiracy claim requires an agreement to accomplish an unlawful purpose or agreed to accomplish a lawful objective by unlawful means, causing damages. <u>Baker v. Stewart Title & Trust of</u> *Phx.*, 197 Ariz. 535, 542, ¶ 30 (App. 2000).

<u>Aiding and abetting</u>. An aiding and abetting claim requires a showing that **[*118]** the defendant provided substantial assistance or encouragement to someone who committed an underlying tort and that the tort caused injury to plaintiffs. *Wells Fargo Bank v. Arizona Laborers, Teamsters & Cement Masons Local No. 395 Pension Trust Fund, 201 Ariz. 474, 485, ¶ 34 (2002).* <u>Negligence per se</u>. A negligence per se claim requires proof that the defendant violated a statute, and that plaintiff was a person that the statute was designed to protect. <u>Ibarra v. Gastelum, 249 Ariz. 493, 496, ¶ 9</u> (App. 2020).

<u>Joint and several liability</u>. Joint and several liability exists only when there is concerted action or imputed liability arising out of agency or some other relationship. *A.R.S.* § 12-2506(A) & (D).

Loss of consortium. Loss of consortium is a derivative claim. *Barnes v. Outlaw, 192 Ariz. 283, 286, ¶ 8 (1998)*.

Plaintiffs' failure to provide evidence that Old Spice played a substantial factor in the development of mesothelioma is fatal to all of plaintiffs' claims. In any event, there is no evidence that any of the defendants were involved in a civil conspiracy or aided and abetted wrongdoing by others. There is no evidence that Shulton committed fraud. There is no evidence that Shulton violated a statute, giving rise to a negligence per se claim. If there was liability, there is no evidence that any defendants acted in concert or that liability should be imputed from one defendant to another. Absent an underlying claim, there can be **[*119]** no loss of consortium claim. Summary judgment is granted on these claims. outrageous conduct will always be required to sustain a claim for punitive damages in negligence cases." *Id.*

Plaintiffs assert that Shulton knew that <u>asbestos</u> was a carcinogen and, by the early [*120] 1970s, that talc was being tested for the presence of <u>asbestos</u>. Shulton never tested its product for <u>asbestos</u>. Plaintiffs claim, however, that Shulton allegedly knew since the 1960s that there were safer, talc-free alternatives, such as corn silk products.

There is no evidence that Shulton knew that its talc contained <u>asbestos</u>.⁶⁷ Rather, plaintiffs ask the Court to infer that Shulton knew that its talc products could contain <u>asbestos</u> and therefore could be dangerous. Plaintiffs contend that Shulton essentially stuck its "head in the sand" and ignored a potential and serious health risks to consumers of Shulton's talc.

Even if there was sufficient evidence of causation for the underlying **[*121]** claims to go to the jury, there is nonetheless insufficient evidence in this record to support a punitive damage award against Shulton. Accordingly, summary judgment would be in order on punitive damages, even if the underlying claims were not dismissed.

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Punitive Damages

Of course, the foregoing rulings render the claim for punitive damages moot. Nonetheless, there is no evidence that would support an award of punitive damages against Shulton.

"[T]o be entitled to punitive damages in a negligence action, a plaintiff generally must show that the defendant's conduct was 'outrageous, oppressive or intolerable,' and 'create[d] [a] substantial risk of tremendous harm,' thereby evidencing a 'conscious and deliberate disregard of the interest[s] and rights of others." Swift Transp. Co. v. Carman, 253 Ariz. 499, ¶ 24 (2022) (quoting Volz v. Coleman Co., 155 Ariz. 567, 570 (1987). To make this showing, plaintiffs "must establish that the defendant knew, or intentionally disregarded, facts that created an unreasonable risk of physical harm-a risk substantially greater than that necessary to make his or her conduct negligent or even grossly negligent-and consciously disregarded that risk. Id. at ¶ 25. "Absent proof of the intent to cause harm or that the defendant acted out of spite or ill will,

A. Not that I'm aware.

....

(Shulton Ex. 5, Moline depo. in *Lefton v. Avon Products, Inc.*, Case No. CV-19-910745, at 91:6-20).

⁶⁷ Indeed, Dr. Moline testified that as of 1994 - two years after Old Spice talcum powder was discontinued - there were no articles or information indicating that the use of talcum powder causes mesothelioma:

Q. Would you agree with me that as of 1994, there were no reports indicating that a consumer's use of cosmetic body powders or aftershave products had caused a mesothelioma in that consumer?

Q. Would you agree that as of 1994, there were no articles that would indicate that the use of a cosmetic body powder or aftershave powder could release a dose of <u>asbestos</u> that could cause an <u>asbestos</u>-related disease?

A. I don't recall seeing any literature to that effect by that time, correct.