Clerk of the Superior Court
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SUPERIOR COURT OF ARIZONA
MARICOPA COUNTY

CV 2020-017108 05/12/2025

HONORABLE FRANK W. MOSKOWITZ

CLERK OF THE COURT
S. Motzer
Deputy

LANDON YOUNG, et al. LINCOLN COMBS

v.

CHEMGUARD INC, et al. THOMAS P BURKE II

JILL J ORMOND
JUDGE MOSKOWITZ

UNDER ADVISEMENT RULING

Pending before the Court is the Motion of Defendant Tyco Fire Products, LP to Exclude the Expert Opinions of Philip Harber, M.D. ("the Motion to Exclude"). It was filed on January 24, 2025. It is fully briefed. Oral argument was held on May 8, 2025.

Tyco argues that Dr. Harber's opinion in this case should be excluded under Rule 702 of the Arizona Rules of Evidence. More specifically, Tyco argues that Dr. Harber is not qualified to render an opinion in this case and his opinion is not reliable. For the reasons that follow, the Court disagrees.

Dr. Harber is Qualified to Render an Opinion on Causation in this Case.

"Under Rule 702, a witness may be qualified based on 'knowledge, skill, experience, training, or education.' For a witness to be qualified as an expert, he or she need only possess 'skill and knowledge superior to that of [people] in general.' …. Careful study may suffice to qualify an expert if it affords greater knowledge on a relevant issue than the jury possesses." *State v. Romero*, 239 Ariz. 6, 10 (2016).

Here, Dr. Harber has practiced medicine for more than 40 years. He is board certified in, among other areas, occupational medicine. He completed a master's degree in public health with an emphasis on environmental health sciences, during which he acquired additional training in statistical and epidemiologic methods. He has been a professor at the University of Arizona and UCLA and, among other titles and roles, taught regularly at both universities' schools of public health. He has published several hundred peer-reviewed studies and reports and has contributed to books on occupational and/or environmental health, including the recognition and causation of occupational diseases. [*See* Plaintiff's Response, at pp. 2-3] Although Dr. Harber is neither an oncologist nor a urologist, his knowledge, skill, experience, training and education are superior to that of people in general. His background also affords him greater knowledge on a relevant issue (*i.e.*, causation) in this product liability/occupational tort case than the jury possesses. The Court, therefore, finds that Dr. Harber is qualified to render an opinion on causation in this case.

Dr. Harber's Opinion Reliably Applies the Principles and Methods to the Facts of this Case.

In *State ex rel. Montgomery v. Miller*, 234 Ariz. 289, 297–99 (App. 2014), the Arizona Court of Appeals explained the test for reliability of expert witness testimony under Rule 702 of the Arizona Rules of Evidence:

> Effective January 1, 2012, the Arizona Supreme Court amended Arizona Rule of Evidence 702 and adopted Federal Rule of Evidence 702, which embodies the principles set forth in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993). Ariz. R. Evid. 702, comment to 2012 amendment; Fed.R.Evid. 702, advisory committee's notes, 2000 amendments. The amended version of Arizona Rule of Evidence 702 states:
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>> A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:
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>> (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;
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>> (b) the testimony is based on sufficient facts or data;
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>> (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.
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> ****

Like its federal counterpart, Arizona Rule of Evidence 702 provides that a trial judge serves as a "gatekeeper" who makes a preliminary assessment as to whether the proposed expert testimony is relevant and reliable. Ariz. R. Evid. 702, comment to 2012 amendment. *See* Fed.R.Evid. 702, advisory committee's notes, 2000 amendments; *Daubert,* 509 U.S. at 597, 113 S.Ct. 2786; *Kumho Tire Co., Ltd. v. Carmichael,* 526 U.S. 137, 119 S.Ct. 1167, 143 L.Ed.2d 238 (1999) (holding that a judge's gatekeeping function under *Daubert* applies to all types of expert testimony, not just scientific testimony). As a result, the party seeking to admit expert testimony must prove, by a preponderance of the evidence, that the testimony is both relevant and reliable. Daubert, 509 U.S. at 592 & n. 10; *Bernstein,* 234 Ariz. at 94, ¶ 10, 317 P.3d at 635.

In evaluating admissibility, courts must remain cognizant of the separate functions of judge and jury. The court's role as gatekeeper does not supplant or replace the adversary system. Ariz. R. Evid. 702, comment to 2012 amendment. "***Where there is contradictory, but reliable, expert testimony, it is the province of the jury to determine the weight and credibility of the testimony" and to decide between "competing methodologies within a field of expertise***." *Id.; see also Heller v. Shaw Industries, Inc.,* 167 F.3d 146, 152 (3rd Cir.1999) (expert testimony shall not be excluded because the expert uses one test in lieu of another, when both tests are accepted in the field and reach reliable results). ***Moreover, "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 [expert] evidence***." *Heller,* 167 F.3d at 152.

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Subsection (c) of Rule 702 requires an expert's testimony to be based on "reliable principles and methods." Under this requirement, an expert must be able to explain how his methods, reasoning and opinions are based on "an accepted body of learning or experience." Fed.R.Evid. 702, advisory committee's notes, 2000 amendments. *See Daubert v. Merrell Dow Pharmaceuticals, Inc.,* 43 F.3d 1311, 1319 n. 11 (9th Cir.1995) ("*Daubert II* ") ("[T]he party proffering the evidence must explain the expert's methodology and demonstrate in some objectively verifiable way that the expert has both chosen a reliable scientific method and followed it faithfully."). ***While the expert's methodology must be based on more than speculation, its reliability need not be established to a degree of scientific certainty***. *Daubert,* 509 U.S. at 590, 113 S.Ct. 2786.

To assist courts in evaluating the reliability of expert testimony, *Daubert* set forth a non-exclusive list of factors. *Daubert*, 509 U.S. at 593, 113 S.Ct. 2786. The specific factors articulated by *Daubert* are: (1) whether the expert's theory or technique can be or has been tested; (2) whether the theory or technique has been subjected to peer review and publication; (3) whether the technique or theory is generally accepted within the relevant scientific community; (4) the known or potential rate of error of the technique or theory when applied; and (5) the existence and maintenance of standards controlling application of the technique. *Id.* at 593–94, 113 S.Ct. 2786.

No single Daubert factor is dispositive of the reliability of an expert's testimony, and not all of the Daubert factors will apply to "all experts or in every case." Kumho Tire, 526 U.S. at 141–42, 152, 119 S.Ct. 1167; Fed.R.Evid. 702, advisory committee's notes, 2000 amendments; *Bernstein*, 234 Ariz. at 95, ¶ 12, 317 P.3d at 636; *see e.g., Tyus v. Urban Search Management*, 102 F.3d 256, 263 (7th Cir.1996) (stating that the *Daubert* factors did not precisely apply to the proffered sociologist's expert testimony). Moreover, courts since *Daubert* have identified other factors for judges to consider in determining reliability, including whether: (1) ***the expert's testimony is prepared solely in anticipation of litigation, or is based on independent research***; (2) the expert's field of expertise/discipline is known to produce reliable results; (3) ***other courts have determined that the expert's methodology is reliable***; and (4) non-judicial uses for the expert's methodology/science. Fed.R.Evid. 702, advisory committee's notes, 2000 amendments; *Kumho Tire*, 526 U.S. at 152, 119 S.Ct. 1167; *Oddi v. Ford Motor Co.*, 234 F.3d 136, 156 (3rd Cir.2000); *Daubert II*, 43 F.3d at 1317.

Finally, subsection (d) of Rule 702 requires an expert to reliably apply "the principles and methods to the facts of the case." Ariz. R. Evid. 702(d). ***As the United States Supreme Court recognized in Joiner, "conclusions and methodology are not entirely distinct from one another," and "[a] court may conclude that there is simply too great an analytical gap between the data and the opinion offered." Joiner, 522 U.S. at 146, 118 S.Ct. 512. Stated another way, the court must determine "[w]hether the expert has unjustifiably extrapolated from an accepted premise to an unfounded conclusion***." Fed.R.Evid. 702, advisory committee's notes, 2000 amendments.

In assessing the reliability of an expert's conclusions and opinions under Rule 702(d), courts have considered a variety of factors, including whether: (1) the expert employs the same care as a litigation expert as he would in his regular professional work outside the courtroom; (2) ***the expert has accounted for obvious***

> ***alternative explanations***, and (3) the expert's opinion adequately accounts for available data and unknown variables. *Crabbe*, 556 F.Supp.2d at 1223–24; Fed.R.Evid. 702, advisory committee's notes, 2000 amendments; *see Kumho Tire*, 526 U.S. at 152, 119 S.Ct. 1167 (the trial court must make certain the expert employs "the same level of intellectual rigor" in the courtroom as in practice); *Sheehan v. Daily Racing Form, Inc.*, 104 F.3d 940, 942 (7th Cir.1997) (stating that expert statistician's opinion in age discrimination case was not admissible under *Daubert* standard where the expert used standard statistical methods to show a correlation between age and the employer's decision to retain or discharge employees, but failed to adjust his statistical analysis by accounting for other variables, such as an employee's computer skills, that would have a bearing on the employer's retention/discharge decisions); *Claar v. Burlington N.R.R. Co.*, 29 F.3d 499, 502 (9th Cir.1994) (testimony excluded when expert failed to consider obvious alternative causes for the plaintiff's ailments).

(Emphasis added).

Here, Dr. Harber has offered the opinion that Tyco's aqueous film-forming foam ("Tyco's AFFF") is a cause[1] of Plaintiff's testicular cancer. Plaintiff has met his burden of proof that Dr. Harber's opinion reliably applies "the principles and methods to the facts of the case" under Rule 702. The Court does not find that "there is simply too great an analytical gap between the data and the opinion offered" and that Dr. Harber has unjustifiably extrapolated from an accepted premise to an unfounded conclusion." *See Miller*, 234 Ariz. at 299.

<u>First</u>, although Dr. Harber does not independently research AFFF, let alone Tyco's AFFF, and his opinion was prepared solely in connection with this case, the Court does not give much weight to this factor. Causation is both an issue in civil cases and a subject of Dr. Harber's medical specialty. Thus, Dr. Harber is akin to a forensic science expert testifying about forensic evidence in a criminal case. *See id*. at 303 (stating that "[i]n addition to the *Daubert* factors, courts may also consider whether an expert developed his opinion based on independent research, or whether the expert developed his opinion 'expressly for purposes of testifying.'….The focus of this factor is whether legitimate, independent research has been conducted in an area, or whether the expert's methodology and opinions have solely been prepared to provide expert testimony for the courtroom….Generally, expert testimony based on independent research is considered more reliable than testimony prepared for litigation; however, one exception to this rule applies to forensic sciences such as "[f]ingerprint analysis, voice recognition, DNA ... and a variety of other

[1] By opining that Tyco's AFFF was "a" cause, as opposed to "the" cause, Dr. Harder's opinion adequately accounted for alternative explanations. He also accounted for such explanations when he took Plaintiff's medical history and reached a differential diagnosis.

endeavors closely tied to law enforcement [that] may indeed have the courtroom as a principle theatre of operations.”).

Second, while no evidence was presented that other courts have found Dr. Harber’s analogies and extrapolations that he used to form his opinion in this case to be reliable in similar cases, there was no evidence presented that other courts have found his methodology to be unreliable. The Court therefore does not give much weight to this factor.

Third, Dr. Harber does not unjustifiably extrapolate and apply the findings of the medical literature and studies upon which he bases his opinion to Tyco’s AFFF, even though the chemical formulations addressed in the literature and studies differ from the chemical formulation contained in Tyco’s AFFF. According to a case cited by both parties, “extrapolations from [substances] within the same class may not support an expert opinion on general causation unless other reliable scientific evidence establishes the validity of the analogy.” *In re Abilify Prods. Liab. Litig.*, 299 F. Supp. 3d 1291, 1311 (N.D. Fla. 2018). Here, Plaintiff has presented “other reliable scientific evidence [that] establishes the validity of the analogy.” *See id*.

According to Plaintiff’s toxicology expert, Dr. DeWitt, whose qualifications and opinions have not been challenged under Rule 702 as being inadequate and/or unreliable:

> Emerging research indicates that even these less well studied PFAS share similarities that are troubling to toxicologists. ***First and foremost, studies to date report that these less well studied PFAS seem to cause the same type of adverse health effects as have been described for PFOA and PFOS*, *although different PFAS may be toxic along different dose continuums, i.e., have different potencies.***
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> ****
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> The number of described PFAS is in the thousands of individual substances and some estimates put that number over 14,000 individual substances (US EPA, 2023d). Companies that manufacture PFAS are demonstrably capable of devising new PFAS at a rate faster than the scientific community can study PFAS and determine their impacts on human and environmental health. A “Zürich Statement, on Future Actions on Per- and Polyfluoroalkyl Substances (PFAS)” published 2018, reflected the views and opinions of over 50 academic and government scientists from around the world. One recommendation of the Zürich Statement was a grouping approach for PFAS: “Given the large number of substances in the PFAS family, the participants agreed that actions need to address groups of PFAS rather than individual chemicals and that such a grouping approach needs to be

> scientifically sound" (Ritscher et al., 2018). Given the vast number of PFAS increasingly found in drinking water sources, it is not feasible to thoroughly test every single PFAS within a short (i.e., several years) time frame. ***Two recent publications upon which I was a co-author support a scientifically sound grouping approach for PFAS. Kwiatkowski et al. (2020) asserted that the high persistence, accumulation potential, and/or hazards (known and potential) of PFAS studied to date warrant grouping all PFAS. Cousins et al. (2020b) suggested that the very high persistence of PFAS is sufficient for their group as a single chemical class as their continual release will lead to increasing concentrations in the environment and living organisms and increasing probabilities of known and unknown effects.***

[*See* Plaintiff's Response, Exhibit 1, Report of Dr. DeWitt, at pp. 12 and 28 (emphasis added)]

The Court understands that Tyco takes issue with this opinion and that it will be subject to cross-examination at trial, as will Dr. DeWitt's testimony that there are no studies to date that conclude that any of these "less well studied PFAS" cause testicular cancer. [*See id.* at Exhibit 5, Deposition of Dr. DeWitt at pp. 51-52, 156-59] That said, "cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking [even] shaky but admissible [expert] evidence." *See Miller,* 235 Ariz. at 298.

<u>Fourth</u>, although Dr. Harber extrapolates that the latency period for the Plaintiff's testicular cancer could be less than four (4) years from his exposure to Tyco's AFFF, he relied on, among other things, a World Trade Center Health Program study that found latency periods for solid tumors ranging from two and half (2.5) years (thyroid cancer) to four (4) years (including testicular cancer) from exposure. Here, there is evidence, or reasonable inferences that can be drawn from that evidence that Plaintiff's exposure to Tyco's AFFF began in 2015, which if true could involve an exposure of just shy of four (4) years – January of 2015 until his diagnosis in November of 2018. The Court understands that there is also evidence that Plaintiff's exposure did not occur until later, in or after November of 2016, for example. However, based on the totality of Dr. Harber's opinion on this latency issue, including his reliance on the *Boyd* study, the Court does not find his opinion to be an unjustifiable extrapolation.

The Court understands that Tyco takes major issue with this opinion and the World Trade Center and *Boyd* studies, and that it will have a fodder of cross-examination questions for Dr. Harber at trial. Tyco will also have its own expert that can address these latency issues at trial. Again, "cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking [even] shaky but admissible [expert] evidence." *See Miller,* 235 Ariz. at 298.

Fifth, Dr. Harder's reliance on *in vitro* and animal studies does not render his opinion unreliable. In a case cited by both parties, *In re Heparin Prods. Liab. Litig.*, 803 F. Supp. 2d 712, 732 (N.D. Ohio 2011), *aff'd sub nom. Rodrigues v. Baxter Healthcare Corp.*, 567 F. App'x 359 (6th Cir. 2014), the District Court for the Northern District of Ohio made clear:

> As discussed above, *in vitro* and animal studies may be used to show causation. *See, e.g., Schott, supra,* 696 F.Supp.2d at 905 (observing that animal and *in vitro* studies are "all recognized and accepted scientific methodologies, used for assessing the possible side-effects and hazards associated with particular drugs and the causes of disease"); *McClellan, supra,* 710 F.Supp.2d at 1113 (noting that case studies, *in vitro* and animal studies "are routinely reviewed and relied upon by physicians in the normal course of their profession, as evidenced by a review of the medical literature").
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> *In vitro* and animal studies "can provide a reliable basis for medical and scientific opinions as long as their extrapolations are warranted." ….
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> Dr. Hoppensteadt's opinions are not based on either animal or *in vitro* studies alone. She relied on both of these types of studies in combination with ecologic studies, review of one of the epidemiological studies on which defendants rely, and reviews of the literature. "Analogy, inference and extrapolation can be sufficiently reliable when the expert's opinion is the kind that a reasonable scientist or physician would make in a decision of importance arising in the exercise of his [or her] profession outside the context of litigation." …. Moreover, as in *Monroe* and *McClellan,* this is a case in which it would be unethical to conduct studies on humans.
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> Dr. Hoppensteadt's opinions cannot be excluded as a matter of law for her reliance on animal and *in vitro* studies, though plaintiffs must demonstrate the reliability of her extrapolations from these studies. *See* Fed. Jud. Ctr., *Reference Manual on Scientific Evidence* at 33 (2d ed. 2000) ("The Court is more interested in focusing on 'how and why' causation could be inferred from the particular evidence being proffered than in formulating per se rules about the admissibility or inadmissibility of categories of evidence to prove causation.").

(certain citations omitted).

Here too, Dr. Harder did not base his opinion on *in vitro* and animal studies alone. He relied on other studies that involved human beings, such as the World Trade Center Health Program study. This is also a case in which it would be unethical to conduct studies on humans.

Sixth, although Dr. Harber considered Plaintiff's elevated PFAS serum levels, which were taken years after his initial diagnosis, he did not provide a precise dosage level needed to cause testicular cancer or provide the amount of Tyco AFFF that Plaintiff was exposed to over the years. His failure to do so, however, does not render his opinion unreliable. According to the Ninth Circuit Court of Appeals in *Clausen v. M/V NEW CARISSA*, 339 F.3d 1049, 1059–60 (9th Cir. 2003), *as amended on denial of reh'g* (Sept. 25, 2003):

> The fact that the minimum threshold level of oil necessary to cause harm to shellfish has not yet been established with any degree of certainty does not render Dr. Elston's evaluation mere guesswork, as the shipowners argue. While "precise information concerning the exposure necessary to cause specific harm [is] beneficial, such evidence is not always available, or necessary, to demonstrate that a substance is toxic ... and need not invariably provide the basis for an expert's opinion on causation." *Westberry*, 178 F.3d at 264; ***Heller***, 167 F.3d at 157("even absent hard evidence of the level of exposure to the chemical in question, a medical expert could offer an opinion that the chemical caused plaintiff's illness").

This Court therefore finds that Dr. Harber's opinion reliably applies "the principles and methods to the facts of the case" under Rule 702.

IT IS THEREFORE ORDERED denying the Motion to Exclude.

Also pending before this Court is the Motion for Summary Judgment of Defendants Chemguard, Inc. and Tyco Fire Products, LP ("the Motion for Summary Judgment"). It was filed September 13, 2024. It is fully briefed. Oral argument was held on May 8, 2025.

Summary judgment may be granted "if the moving party shows that there is no genuine dispute as to any material fact and the moving party is entitled to judgment as a matter of law." Rule 56, Ariz. R. Civ. Pro.

In considering a motion for summary judgment, the Court "must view the evidence in the light most favorable to the [non-moving party], who is given the benefit of all favorable inferences that may reasonably be drawn from the evidence." *Walker v. Montgomery Ward & Co.,* 20 Ariz. App. 255, 257 (1973).

"[S]ummary judgment is not appropriate if the court must evaluate the credibility of witnesses with different versions of material facts, weigh the quality of evidence, or choose among competing inferences." *Purdy as Tr. of Survivors of Jones v. Metcalf in & for Cnty. of Pima*, 252 Ariz. 270, 274 (App. 2021).

Here, it is undisputed that "[i]n discovery, Plaintiffs dropped any contention that Mr. Young was exposed to Chemguard AFFF or that Chemguard AFFF caused his cancer." [*See* Statement of Facts in Support of Motion for Summary Judgment of Defendants Chemguard, Inc. and Tyco Fire Products LP, at ¶ 23; Plaintiffs' Controverting and Separate Statement of Facts in Support of Their Opposition to Chemguard, Inc. and Tyco Fire Products LP's Motion for Summary Judgment, at ¶ 23] At the oral argument, all counsel agreed that it was appropriate to grant summary judgment in favor of Defendant Chemguard, Inc. ("Chemguard").

IT IS THEREFORE ORDERED granting Chemguard's Motion for Summary Judgment.

With regard to Defendant Tyco Fire Products, LP ("Tyco"), and viewing the evidence in the light most favorable to the Plaintiff, who is given the benefit of all favorable inferences that may reasonably be drawn from the evidence, and not evaluating the credibility of the witnesses, weighing the quality of the evidence, or choosing among competing inferences, the Court finds that there exist genuine issues of material fact on the issues of exposure and causation, such that Tyco is not entitled to judgment as a matter of law.

IT IS THEREFORE ORDERED denying Tyco's Motion for Summary Judgment.