#### IN THE SUPERIOR COURT OF THE STATE OF DELAWARE

CARLOS M. PARAJON,	)
Plaintiff,	) )
	) C.A. No. N20C-12-240 KMM
V.	)
NATIONAL RAILROAD PASSENGER	)
CORPORATION, d/b/a AMTRAK and	)
ELITE CLEANING CO., d/b/a ELITE	)
BUILDING SERVICES,	)
Defendants.	)
Defendants.	)

Date submitted: February 23, 2024 Date decided: May 21, 2024

# MEMORANDUM OPINION AND ORDER ON DEFENDANTS' DAUBERT MOTIONS AND MOTION FOR SUMMARY JUDGMENT

Defendants National Railroad Passenger Corporation and Elite Cleaning Co., Inc.'s Motion to Preclude Plaintiff's Expert (Michael M. Cohen, M.D.) from Offering Causation Opinions at Trial, **DENIED.** 

Defendants National Railroad Passenger Corporation and Elite Cleaning Co., Inc.'s Motion to Preclude Plaintiff's Expert (Steven High) from Offering Causation Opinions at Trial, **DENIED.** 

Motion of Defendants National Railroad Passenger Corporation and Elite Cleaning Co., Inc. for Summary Judgment, **DENIED**.

## I. <u>Introduction</u>

Plaintiff, Carlos M. Parajon ("Parajon"), asserts that he suffered injuries, including toxic encephalopathy, from exposure to a toxic chemical while working at Defendant National Railroad Passenger Corporation ("Amtrak"). The chemical exposure resulted from the use of a floor stripping product used by Defendant Elite Cleaning Co., Inc. ("Elite" and with Amtrak, "Defendants"), while performing services at an Amtrak facility.

Parajon relies on two experts: a neurologist and an industrial hygienist. The neurologist opines that Parajon suffered toxic encephalopathy as a result of the chemical exposure. The industrial hygienist opines that Defendants breached various safety requirements in connection with use of the floor stripping product. In his analysis, the industrial hygienist determined that in the range of chemical exposures likely to have been experienced by Parajon, an overexposure was possible.

Defendants moved to exclude the experts' testimony under *Daubert*. The Defendants argue that because the experts do not offer an opinion on the exact level of chemical exposure to which Parajon was subjected, they cannot offer an opinion that Parajon suffered toxic encephalopathy. Further, they assert, the experts do not have a basis to establish a causal link between exposure to the chemical at issue here and this type of injury.

The industrial hygienist does not offer an opinion on causation of Parajon's toxic encephalopathy. The neurologist offered his opinion through a differential diagnosis, which is a reliable method to reach a diagnosis. Because Defendants' challenges to the experts' opinions go to credibility and not reliability, the *Daubert* motions are DENIED.

Defendants' motion for summary judgment relies on the success on the *Daubert* motions; that is, without expert testimony, Parajon cannot establish a *prima* facie element of his claim, and therefore, Defendants are entitled to summary judgment. Because the *Daubert* motions are denied, the motion for summary judgment is DENIED.

## II. Factual Background

## A. Parajon is exposed to chemicals.

Parajon was a railroad engineer for Amtrak at its Wilmington Maintenance Facility. When he was not operating train engines around the yard, he would be on stand-by and wait in the crew room for his next assignment.<sup>1</sup> An employee lunchroom is immediately adjacent to the crew room.

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<sup>&</sup>lt;sup>1</sup> D.I. 183, Pl.'s Resp. to Mot. to Preclude Cohen, Ex. B Parajon Dep. at pp. 23-25, 36-38.

On January 9, 2019, during Parajon's shift, Elite, an Amtrak independent contractor, was stripping and re-waxing the floor in the lunchroom, using a product called Hot Shot Heavy Duty No Rinse Speed Stripper ("Hot Shot").<sup>2</sup>

During the time he was in the crew room that night, the lunchroom door was open and the windows in the crew room and the lunchroom were closed.<sup>3</sup> On occasion, Parajon walked through the lunchroom to access the men's restroom.<sup>4</sup> While in the crew room, Parajon noticed a foul odor emanating from the lunchroom. He experienced a rapid onset of symptoms, including a strong, sweet taste in his mouth, confusion, light-headedness, dizziness, and watery eyes.<sup>5</sup> A coworker came into the crew room, smelled the odor, and escorted Parajon outside of the building.<sup>6</sup> Parajon drove himself home but felt so poorly that he called an ambulance from his driveway.

Parajon was taken to Christiana Hospital where he reported that workers at Amtrak were using Hot Shot and that he inhaled an unknown chemical for approximately two hours.<sup>7</sup> He was complaining of weakness, light-headedness,

<sup>2</sup> Id., Ex. C Material Safety Data Sheet ("MSDS").

<sup>&</sup>lt;sup>3</sup> *Id.*, Ex. B Parajon Dep. at pp. 41, 80, 84. There is conflicting testimony about whether the windows were closed. *See* D.I. 193, Defs.' Reply to Pl.'s Resp. to Mot. to Preclude High, Ex. B - Zacamy Dep. at 32. For purposes of this motion, the Court construes the facts in a light favorable to Parajon. *Burkhart v. Davies*, 602 A.2d 56, 59 (Del. 1991).

<sup>&</sup>lt;sup>4</sup> D.I. 183, Pl.'s Resp. to Mot. to Preclude Cohen, Ex. B - Parajon Dep. at pp. 41, 78-79.

<sup>&</sup>lt;sup>5</sup> *Id.* at pp. 43-44, 80.

<sup>&</sup>lt;sup>6</sup> *Id.* at pp. 49-50.

<sup>&</sup>lt;sup>7</sup> *Id.* at pp. 71, 78-80.

headache, photophobia, uncontrollable body-wide tremors, and cramping of his lower extremities.<sup>8</sup> Emergency department staff consulted with poison control.<sup>9</sup> Parajon was diagnosed with chemical exposure and weakness.<sup>10</sup> He was released the next day.

## B. Parajon continues to experience symptoms.

Parajon followed up with his primary care physician, as well as neurologist Carl Yacoub, M.D. Between March 2019 and April 2021, Dr. Yacoub evaluated Parajon ten times for a series of continuing symptoms, including difficulty focusing and concentrating, visual disturbances, anxiety, vertigo, dizziness, difficulty walking, episodes of disorientation, and difficulty with muscle coordination. Dr. Yacoub attributed the symptoms to Parajon's exposure to volatile chemicals on January 9, 2019. 12

While he continued to experience symptoms, Parajon was unable to work.<sup>13</sup> He returned to work in 2021.<sup>14</sup>

As a result of exposure to the chemicals in Hot Shot, Parajon filed this action on December 29, 2020.<sup>15</sup> He asserts a claim against Amtrak under the Federal

<sup>&</sup>lt;sup>8</sup> D.I. 208, Pl.'s Resp. for Further Analysis, Ex. B - EMS Report.

<sup>9</sup> *Id* 

<sup>&</sup>lt;sup>10</sup> *Id.* Ex. C - ED Physician Record.

<sup>&</sup>lt;sup>11</sup> D.I. 183, Pl.'s Resp. to Mot. to Preclude Cohen, Ex. E - Dr. Yacoub Records.

<sup>&</sup>lt;sup>12</sup> *Id*.

<sup>&</sup>lt;sup>13</sup> *Id*.

<sup>&</sup>lt;sup>14</sup> *Id*.

<sup>&</sup>lt;sup>15</sup> D.I. 1.

Employers' Liability Act,<sup>16</sup> and a negligence claim against Elite for the injuries he sustained.

## C. Parajon's experts

## 1. Steven High

Mr. High is an Environmental Health and Safety Consultant with Board Certifications as an Industrial Hygienist and a Safety Professional, along with multiple other professional and educational designations. <sup>17</sup> Mr. High reviewed the discovery taken in this case, including depositions. On August 19, 2022, he performed a site inspection at Amtrak's Wilmington facility. <sup>18</sup> Mr. High conducted various tests, which included taking measurements of the rooms and air quality measurements. <sup>19</sup> Mr. High evaluated the chemical composition of Hot Shot and evaluated exposure scenarios. <sup>20</sup> He also reviewed Parajon's medical symptomatology and evaluated them against the known physical reactions to the chemicals. <sup>21</sup>

<sup>&</sup>lt;sup>16</sup> 45 U.S.C. §§ 51 *et seq*.

<sup>&</sup>lt;sup>17</sup> See D.I. 184, Pl.'s Resp. to Mot. To Preclude High, Ex. C - Mr. High Curriculum Vitae.

<sup>&</sup>lt;sup>18</sup> *Id.*, Ex. D - High Report.

<sup>&</sup>lt;sup>19</sup> *Id*.

<sup>&</sup>lt;sup>20</sup> *Id*.

<sup>&</sup>lt;sup>21</sup> *Id*.

Mr. High found that Hot Shot contains the chemicals Ethylene Glycol Butyl Ether ("EGBE"), Monoethanolamine, and Potassium Hydroxide.<sup>22</sup> Hot Shot is classified as a corrosive and an irritant with hazard statements that include:

H336 – May cause drowsiness or dizziness

H333 – May be harmful if inhaled<sup>23</sup>

The Material Safety Data Sheet for Hot Shot contains statements such as:

Severe eye and skin irritant.

Avoid breathing of vapors.

For institutional and industrial use only. Use in a well-ventilated area only.

Respiratory Protection: Use NIOSH approved organic vapor respirator or self-contained breathing apparatus in confined or poorly ventilated areas.<sup>24</sup>

Mr. High noted that National Library of Medicine data reflects that health impacts from overexposure to EGBE include: "Neurological: Agitation, lowered mental state, unresponsiveness and spasms/seizures.... Respiratory: Irregular breathing (slow or rapid), shortness of breath, wheezing, respiratory tract burning/irritation, pulmonary edema, hypoxia/cyanosis"<sup>25</sup> An overexposure, Mr. High states, "can be defined as exposure to substances above thresholds that are

<sup>&</sup>lt;sup>22</sup> *Id.* at 6.

<sup>&</sup>lt;sup>23</sup> *Id*.

<sup>&</sup>lt;sup>24</sup> *Id.*, Ex. E - MSDS at 6-7.

 $<sup>^{25}</sup>$  *Id.*, Ex. D - High Report at 7.

considered acceptable or 'safe.'"<sup>26</sup> He notes, however, that individual responses will vary, and some may have reactions at exposures below the acceptable levels.<sup>27</sup>

For EGBE, the National Institute of Occupational Safety and Health ("NIOSH") "established a recommended exposure limit (REL) of 5 ppm, averaged over a ten-hour period (ten times lower than the OSHA [R]EL).<sup>28</sup>

Mr. High's modeling of EGBE was reported as:<sup>29</sup>

	ppm	95% Confidence	
2-Butoxyethanol (ppm)	<b>Point Estimate</b>	LCL	UCL
Median (50th percentile)	0.25	0.04	1.72
90th	0.79	0.10	9.31
95th	1.08	0.13	17.58
99th	1.90	0.21	64.12

Mr. High utilized a generally accepted and widely utilized modeling technique called the Advanced REACH Tool ("ART") to model Parajon's potential vapor-based exposure.<sup>30</sup> He explained that under the ART Model "EGBE demonstrated a point exposure estimate for the 99<sup>th</sup> percentile of workers at 1.9 ppm with a very wide 95% confidence interval of 0.21 ppm to 64 ppm. This variation in exposure range, averaged for a shift period, demonstrates that overexposure to EGBE was

<sup>&</sup>lt;sup>26</sup> *Id.* at 9.

<sup>&</sup>lt;sup>27</sup> *Id*.

<sup>&</sup>lt;sup>28</sup> *Id.* at 7.

<sup>&</sup>lt;sup>29</sup> *Id.* at 37.

<sup>&</sup>lt;sup>30</sup> *Id.* at 11.

possible, as predicted by this model."<sup>31</sup> That is, 5 ppm fell within the range of .21 and 64.12.

Mr. High opined that Parajon's "description of onset of symptoms align exactly with the expected effects of an overexposure to the chemical ingredients in the Hot Shot product." Mr. High also concluded that "[t]he presence of these materials in the area immediately adjacent and the rapid onset of symptoms that align with the chemical materials present provides strong evidence of an overexposure scenario." <sup>33</sup>

Mr. High offered various opinions against Amtrak and Elite, including failure to train workers, failure to use proper equipment, and failure to follow safety regulations.

#### 2. Michael Cohen, M.D.

Michael Cohen, M.D. is a graduate of Jefferson Medical College and is Board Certified in Neurology.<sup>34</sup> He examined Parajon on August 16, 2021, and September 13, 2022, and prepared expert reports following each examination.<sup>35</sup>

Parajon reported to Dr. Cohen symptoms of "brain fog," dizziness, nausea, episodes of vertigo, difficulty concentrating, memory impairment, episodes of

<sup>&</sup>lt;sup>31</sup> *Id*.

<sup>&</sup>lt;sup>32</sup> *Id.* at 9.

<sup>&</sup>lt;sup>33</sup> *Id*.

<sup>&</sup>lt;sup>34</sup> D.I. 183, Pl.'s Resp. to Mot. to Preclude Cohen, Ex. G - Dr. Cohen *Curriculum Vitae*.

<sup>&</sup>lt;sup>35</sup> *Id.*, Ex. F - Dr. Cohen Reports, Oct. 13, 2021 and Sept. 13, 2022.

disorientation.<sup>36</sup> Some of the symptoms improved from initial onset, but others continued.

In addition to performing neurological examinations on each visit, Dr. Cohen took a history from Parajon, reviewed his medical treatment records including records from Christiana Hospital and Dr. Yacoub, and several diagnostic tests.<sup>37</sup> Based upon his history, neurological examinations, review of the medical records and diagnostic testing, Dr. Cohen diagnosed Parajon with "toxic encephalopathy with persistent post-exposure cognitive and mild anxiety disorder" caused by "[t]he toxic exposure of January 9, 2019."<sup>38</sup>

On his second evaluation on September 13, 2022, Dr. Cohen opined that Parajon suffered from "toxic encephalopathy with persistent post-exposure cognitive and mild anxiety disorder." Parajon was found to have improved but was left with mild persistent cognitive impairment which remain[ed] his major residual at [that] time. Unfortunately, there is no treatment for that."<sup>39</sup>

Defendants did not depose Parajon's experts.

<sup>37</sup> *Id*.

<sup>&</sup>lt;sup>36</sup> *Id*.

<sup>&</sup>lt;sup>38</sup> *Id*.

<sup>&</sup>lt;sup>39</sup> *Id*.

## III. <u>Procedural Background</u>

Defendants filed *Daubert* motions seeking to preclude each of Parajon's experts from offering causation opinions against them (the "*Daubert* Motions").<sup>40</sup> They also filed a Motion for Summary Judgment, asserting that they were entitled to judgment because Parajon offered no expert who could survive a *Daubert* challenge (the "Summary Judgment Motion"),<sup>41</sup> and therefore, he could not satisfy a *prima facie* element of his cause of action.

Parajon filed responses in opposition to the *Daubert* Motions and the Summary Judgment Motion.<sup>42</sup>

At the hearing on the motions, the Court requested supplemental briefing, which the parties later submitted.<sup>43</sup>

### IV. The Daubert Motions

## I. Standard of Review

Under Delaware Rule of Evidence ("D.R.E.") 702, expert opinion testimony is admissible provided that the "witness is qualified as an expert by knowledge, skill, experience, training, or education" if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;

<sup>&</sup>lt;sup>40</sup> D.I. 172, 173.

<sup>&</sup>lt;sup>41</sup> D.I. 174.

<sup>&</sup>lt;sup>42</sup> D.I. 183-185.

<sup>&</sup>lt;sup>43</sup> D.I. 208, 209.

(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.<sup>44</sup>

D.R.E. 702, which is nearly identical to its federal counterpart, ensures that expert testimony is both relevant and reliable.<sup>45</sup> Under the *Daubert* standard, non-exclusive factors for the court's consideration include:

(1) whether the technique or scientific knowledge has been tested or can be tested; (2) whether the theory or technique has been subjected to peer review and publication; (3) the known or potential rate of error and the control standards for the technique's operation; and (4) whether the technique has gained general acceptance.<sup>46</sup>

"These factors do not function as a definitive checklist or test." "Many scientific, technical, or specialized fields are not subject to peer review and publication, which is why the test of reliability is 'flexible" and "takes into account the particular specialty of the expert under review and the particular facts of the underlying case." As the gatekeeper, the court's role "is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the

<sup>&</sup>lt;sup>44</sup> D.R.E. 702.

 <sup>&</sup>lt;sup>45</sup> See Eskin v. Carden, 842 A.2d 1222, 1231 (Del. 2004) (citing Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993)); Crowhorn v. Boyle, 793 A.2d 422 (Del. Super. 2002).
<sup>46</sup> State v. McMullen, 900 A.2d 103, 113 (Del. Super. 2006) (internal quotations and citations

State v. McMullen, 900 A.2d 103, 113 (Del. Super. 2006) (internal quotations and citations omitted).

<sup>&</sup>lt;sup>47</sup> *Id*.

<sup>&</sup>lt;sup>48</sup> *Id.*; *Smack-Dixon v. Wal-Mart, Inc.*, 2021 WL 3012056, at \*5 (Del. Super. July 16, 2021).

courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field."<sup>49</sup>

"[T]he practice of medicine remains an art," which often presents a challenge to the "judicial gatekeeper when applying a *Daubert* analysis to the discipline of clinical medicine as opposed to the practice of 'hard science." 50

In clinical medicine, standard practice for diagnosing a patient and establishing cause is through differential diagnosis. Differential diagnosis refers to the process of determining which diseases the patient is suffering from by comparing various competing diagnostic hypotheses with the clinical findings. A physician may reach a reliable differential diagnosis without performing a physical examination himself, and it is acceptable for a physician to arrive at a diagnosis by relying on examinations and tests performed by other medical practitioners.<sup>51</sup>

An expert's mere statement that he or she applied differential diagnosis, however, "does not *ipso facto* make that application scientifically reliable or admissible."<sup>52</sup> "The Court must 'delve into the particular witness's method of performing a differential diagnosis to determine if his or her ultimate conclusions are reliable."<sup>53</sup>

"A differential diagnosis is deemed reliable for *Daubert* purposes if it is rendered after the physician conducts a physical examination, takes a medical

<sup>&</sup>lt;sup>49</sup> *Rodriguez v. State*, 30 A.3d 764, 769 (Del. 2011) (quoting *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999)).

<sup>&</sup>lt;sup>50</sup> McMullen, 900 A.2d at 114 (citations omitted).

<sup>&</sup>lt;sup>51</sup> Smack-Dixon, 2021 WL 3012056, at \*5 (citations omitted).

<sup>&</sup>lt;sup>52</sup> *McMullen*, 900 A.2d at 116-17 (citations omitted).

<sup>&</sup>lt;sup>53</sup> *Id.* at 117 (citations omitted).

history, reviews clinical tests, including laboratory tests, and excludes obvious (but not all) alternative causes."<sup>54</sup> "Furthermore, a differential diagnosis is not considered unreliable simply because 'no epidemiological studies, peer-reviewed published studies, animal studies, or laboratory data are offered in support of the opinion."<sup>55</sup> "So long as physicians employ objective diagnostic techniques when performing a differential diagnosis, their diagnosis will be reliable under *Daubert* even if the conclusion is 'novel' and not widely known in the medical community."<sup>56</sup> "[A] proponent need only show by a preponderance of the evidence that their expert's opinions are reliable, not that they are correct."<sup>57</sup>

## II. Analysis

## 1. Mr. High

## i. The parties' contentions

Defendants do not challenge Mr. High's credentials or his collection and testing methodologies. Rather, their sole ground for objection to Mr. High's opinions is that he did not specify the level of EGBE to which Parajon was exposed. They argue that in a toxic substance exposure claim, "an expert must include a

<sup>&</sup>lt;sup>54</sup> *Id.* (citing *Bowen v. E.I. DuPont de Nemours and Co., Inc.*, 2005 WL 1952859, at \*10 (Del. Super. June 23, 2005); *Heller v. Shaw Indus., Inc.*, 167 F.3d 146, 156 (3d Cir. 1999)).

<sup>&</sup>lt;sup>55</sup> *Id.* (quoting *Easum v. Miller*, 92 P.3d 794, 803 (Wyo. 2004); *Heller*, 167 F.3d 146 (we do not believe that a medical expert must always cite published studies on general causation in order to reliably conclude that a particular object caused a particular illness)).

<sup>&</sup>lt;sup>56</sup> *McMullen*, 900 A.2d at 117-18.

<sup>&</sup>lt;sup>57</sup> Smack-Dixon, 2021 WL 3012056, at \*5 (citing McMullen, 900 A.2d at 114).

reasonable assessment of the likely range of dose received by the worker and a determination as to whether that dose is comparable to amounts known (not speculated) to cause disease."<sup>58</sup> They further assert that such a plaintiff "must prove the levels of exposure that are hazardous to human beings generally as well as the plaintiff's actual level of exposure to the defendant's toxic substance before he or she may recover."<sup>59</sup>

Defendants contend that Mr. High offers speculative "Exposure Scenarios" and that he cannot demonstrate that Parajon experienced an overexposure or that any exposure was sufficient to cause toxic encephalopathy, because no epidemiological study was conducted. They point to the Centers for Disease Control and Prevention's ("CDC") literature, which does not provide a nexus between exposure to EGBE and the type of injury Parajon claims he suffered. Further, they argue, there are no established regulatory exposure limits for EGBE issued by NIOSH or OSHA to make a connection between the exposure and toxic encephalopathy.<sup>60</sup>

Defendants point to CDC guidelines to argue that exposure to EGBE is unlikely to cause system toxicity and that any symptoms from exposure to the chemical will resolve if the source of the exposure is removed.<sup>61</sup> They further

 $<sup>^{58}</sup>$  D.I. 173, Defs.' Mot. to Preclude High, at  $\P$  8.

<sup>&</sup>lt;sup>59</sup> *Id.* at ¶ 8.

 $<sup>^{60}</sup>$  *Id.* at ¶ 10.

<sup>&</sup>lt;sup>61</sup> *Id*.

criticize Mr. High's opinions because he does not rely on peer reviewed studies to link Parajon's alleged toxic encephalopathy to the exposure.<sup>62</sup>

Based on these alleged deficiencies Defendants contend that Mr. High's opinions are unreliable and therefore inadmissible.

Parajon responds that Mr. High used acceptable methodology in reaching his conclusions. He performed a site inspection, evaluated the chemicals contained in Hot Shot, performed an evaluation and an exposure scenario, evaluated Parajon's symptomatology against the known reactions to those chemicals, and arrived at his opinions within a reasonable degree of certainty in his field.<sup>63</sup> Mr. High opined that Parajon's "description of onset of symptoms align exactly with the expected effects of an overexposure to the chemical ingredients in the Hot Shot product."<sup>64</sup>

#### ii. Discussion

Defendants do not challenge Mr. High's qualifications as an expert or that his opinions are based on information reasonably relied upon by experts in his field. Defendants also do not challenge Mr. High's methodology of taking measurements during the site visit or the use of the ART method.<sup>65</sup> The crux of Defendants'

<sup>&</sup>lt;sup>62</sup> *Id.* at ¶ 9.

<sup>&</sup>lt;sup>63</sup> D.I. 184, Pl.'s Resp. to Mot. To Preclude High, at ¶ 7.

<sup>&</sup>lt;sup>64</sup> *Id*. at ¶ 9.

<sup>&</sup>lt;sup>65</sup> Transcript, pp. 16-17.

challenge is that Mr. High does not make a connection between the exposure and toxic encephalopathy.

Mr. High: reviewed Parajon's medical records and history of complaints; reviewed the discovery in this case, including deposition testimony of Elite personnel regarding the use and mixing of Hot Shot; conducted a site inspection and took measurements; reviewed and researched Hot Shot and its ingredients; and, used an acceptable modeling technique in his calculation of an overexposure scenario.

Mr. High is not providing a causation opinion with respect to toxic encephalopathy, as Defendants acknowledge. Mr. High is providing opinions on the safety requirements for use of toxic chemicals. In his analysis, he determined that the conditions to which Parajon was subjected, were sufficient for an overexposure to EGBE to have occurred within a large portion of the range of .12 to 64.12. <sup>66</sup> He evaluated the chemical makeup of EGBE, the period over which Parajon was allegedly exposed to it, and Parajon's alleged symptomatology (which closely tracked the known symptoms caused by exposure to the toxic substance). Mr.

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<sup>&</sup>lt;sup>66</sup> Defendants take issue with Mr. High's conclusion under the ART model that it was "possible" that there was an overexposure to EGBE. Tr. at 18-19 (emphasis added). The exposure scenario analysis, however, was only a part of Mr. High's analysis. Through this analysis, he determined that there was at least a possibility of an overexposure because the modeling shows that levels of EGBE were above acceptable limits, as opposed to a scenario where the levels never exceeded acceptable levels. Mr. High's opinions about an overexposure are also based on the known symptomatology of an overexposure to this chemical and Parajon's symptoms, for example. Mr. High's opinions are within a reasonable degree of certainty in his field of occupational safety, and thus, are sufficient.

High's opinions are supported by an adequate factual record, and he has provided sufficient reasoning to support his conclusions. Thus, Mr. High's testimony is admissible because his opinions are based on valid reasoning and reliable methodology.<sup>67</sup>

Defendants' challenges to Mr. High's opinions, such as whether the windows and doors were opened or closed and whether other sources point to different conclusions, are properly addressed through cross-examination at trial.

#### 2. Dr. Cohen

## i. The parties' contentions

Defendants' arguments relating to Dr. Cohen are essentially the same arguments they made with respect to Mr. High: he cannot demonstrate a reliable methodology for his opinion that Parajon suffered toxic encephalopathy as a result of chemical exposure because he does not present an epidemiological basis for the opinion.

Parajon responds that Dr. Cohen is not an epidemiologist, and he is not offering an epidemiological assessment, but rather an etiological opinion. Dr. Cohen came to his conclusions after taking a detailed history from Parajon, conducting neurological examinations, reviewing his treatment records from other physicians,

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<sup>&</sup>lt;sup>67</sup> See Minner v. American Mortg. & Guar. Co., 791 A.2d 826, 866 (Del. Super. 2000) (It is not necessary that an expert report have an undisputed foundation, it need only be based on valid reasoning and reliable methodology) (*citing Kannankeril v. Terminix Int'l, Inc.*, 128 F.3d 128 F.3d 802, 806 (3d Cir. 1997)).

and diagnostic reports. Thus, Parajon asserts that Dr. Cohen's opinions satisfy the *Daubert* standard.

Defendants' motion did not address whether Dr. Cohen's opinions meet *Daubert* standards by providing a differential diagnosis. Therefore, at oral argument, the Court requested that the parties address this issue and the Third Circuit Court of Appeal's decision in *Kannankeril v. Terminix International, Inc.*,<sup>68</sup> which addresses an expert's use of differential diagnosis in a toxic exposure case.

Defendants argue that *Kannankeril* is factually distinguishable because of the difference in the period and proximity of the chemical exposure (16 months at home versus 2 hours at work). Further, the side effective of the chemical in *Kannankeril* was not in dispute and it is very much in dispute here. Defendants also rely on their expert's opinion that Parajon has no lingering symptoms from the chemical exposure, to show Parajon cannot meet his burden here.

#### ii. Discussion

For purposes of this motion, there is no dispute that exposure to toxic chemicals can cause at least some of the symptoms Parajon experienced when he was exposed to the vapors of Hot Shot. Defendants' attack is on Dr. Cohen's diagnosis of toxic encephalopathy.<sup>69</sup> There is no dispute that toxic encephalopathy

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<sup>&</sup>lt;sup>68</sup> 128 F.3d 802.

<sup>&</sup>lt;sup>69</sup> Defendants do not attack Dr. Cohen's credentials as an expert.

is a valid medical diagnosis, but Defendants contend that Dr. Cohen has no basis to establish a causal link between the exposure and this diagnosis.

Toxic encephalopathy "is defined as an acquired mental impairment, affecting intellect, memory, emotions, and personality." "Chronic TE involves subtle but cumulative brain damage." 1

A differential diagnosis is a recognized technique in assessing causation of a condition. It is defined as "the determination of which of two or more diseases with similar symptoms is the one from which the patient is suffering, by a systematic comparison and contrasting of clinical findings."<sup>72</sup> A doctor may employ all or some of the following in using this technique: physical examinations, taking a medical history, and review of clinical tests.<sup>73</sup>

In *Kannankeril*, a plaintiff allegedly developed chronic toxicity after her home was treated with pesticides by Terminix over a 16 month period.<sup>74</sup> Plaintiff's symptoms were consistent with the known effects of exposure to the toxic substance at issue.<sup>75</sup> Plaintiff's medical expert, relying on a differential diagnosis, offered the opinion that her condition was the result of exposure to a chemical component in the

<sup>&</sup>lt;sup>70</sup> Minner, 791 A.2d at 857 (citing WHO & Nordic Council of Ministers, Chronic Effects of Organic Solvents on the Central Nervous System and Diagnostic Criteria, 8 (1985)).

<sup>&</sup>lt;sup>71</sup> *Id*.

<sup>&</sup>lt;sup>72</sup> *Kannankeril*, 128 F.3d at 807.

<sup>&</sup>lt;sup>73</sup> *Id.*; *Smack-Dixon*, 2021 WL 3012056, at \*5.

<sup>&</sup>lt;sup>74</sup> *Kannankeril*. 128 F.3d at 805.

<sup>&</sup>lt;sup>75</sup> *Id.* at 809.

product applied by Terminix.<sup>76</sup> The temporal relationship and the nature of plaintiff's complaints led the expert to his conclusions.<sup>77</sup>

The trial court excluded plaintiff's expert. On appeal, Terminix argued the lower court should be affirmed because the expert did not: deploy proper differential diagnostic techniques because he did not personally examine plaintiff; know the level of expose to the chemical or the amount of time plaintiffs were in the home; and, rely on peer reviewed material or have his finding subjected to peer review.<sup>78</sup>

The Third Circuit rejected Terminix's arguments, finding that the expert's testimony was reliable, and therefore met the requirements for admissibility under Rule 702. The court found that: a differential diagnosis is an acceptable, reliable methodology in determining causation, even where the expert does not personally examine the plaintiff;<sup>79</sup> the expert had sufficient knowledge of the degree of exposure (based on Terminix service records) without knowing the exact level of exposure or the amount of time plaintiffs were exposed to the chemical; and, peer review and publication are not "necessary conditions of reliability" in every case and

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<sup>&</sup>lt;sup>76</sup> *Id.* at 805. To form his opinions, the expert relied on his review of plaintiff's medical records, including her account of her cognitive symptoms, and summary reports of the times and amount of the application of the suspected chemical, as well as his experience and training. *Id.* at 806.

<sup>&</sup>lt;sup>77</sup> *Id.* at 809. <sup>78</sup> *Id.* at 808.

<sup>&</sup>lt;sup>79</sup> *Id.* at 807.

were not required in *Kannankeril* because the harmful nature of the chemical was accepted scientific knowledge.<sup>80</sup>

Here, Dr. Cohen employed recognized methods of performing a differential diagnosis. He took a detailed medical history from Parajon, reviewed Parajon's treatment records from other physicians and diagnostic reports,<sup>81</sup> and examined Parajon. Dr. Cohen's opinion is also based on the close temporal relationship of Parajon's exposure to a known toxic substance and the onset of expected symptoms following such an exposure.

To be admissible, an expert is not required to know the exact level of exposure to the toxic substance, contrary to Defendants' argument.<sup>82</sup> But, the expert must have sufficient knowledge of the exposure to support his or her conclusion.<sup>83</sup> Dr.

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<sup>&</sup>lt;sup>80</sup> *Id.* at 809.

<sup>81</sup> D.I. 208, Pl.'s Resp. for Further Analysis, Ex. A.

<sup>&</sup>lt;sup>82</sup> Kannankeril, 128 F.3d at 808-09. Defendants rely on Tumlinson v. Advanced Micro Devices, Inc., 81 A.3d 1264 (Del. 2013), to support their argument that a plaintiff must establish the exact level of exposure of the toxic substance. Tumlinson is distinguishable and thus, not helpful to Defendants. In Tumlinson, plaintiffs worked at different locations for the same company – the defendant. While employed by the defendant, their first two children were born with birth defects, but their third child was not. Plaintiffs' expert, an epidemiologist, offered an opinion that while working at the defendant, plaintiffs were exposed to chemicals which cause the birth defects. The expert "was unable to identify which specific chemicals, either individually or in combination, that caused the [p]laintiff's 'very different' birth defects." Id. at 1270-71. She also failed to differentiate between the plaintiffs' differing work environments. Id. The court found that the expert failed to "detail her methodology of weighing the importance and validity of each data source to assemble a cohesive picture," under either of the two acceptable methods used by epidemiologists. Id. at 1272. Here, Dr. Cohen is not offering an epidemiological opinion, but rather a clinical diagnosis. Additionally, the details of the chemical exposure, including the identity of the chemical, are known here.

<sup>83</sup> Kannankeril, 128 F.3d at 808-09.

Cohen has knowledge of Parajon's chemical exposure and the period of such exposure. This is sufficient to satisfy the minimal *Daubert* admissibility standards.

Finally, peer review is not necessary.<sup>84</sup> While Defendants dispute that exposure to EGBE can cause toxic encephalopathy, exposure to organic solvents has been known to cause such a condition.<sup>85</sup> A proponent of the evidence need only show "that their expert's opinions are reliable, not that they are correct,"<sup>86</sup> even if the conclusions are novel or not widely known in the medical community.

Defendants argue that they have presented an alternate cause for Parajon's condition and therefore, under *Kannankeril*, Parajon is required to offer expert testimony to explain why Dr. Cohen's opinions remain reliable.<sup>87</sup> Defendants' expert, however, offers no such opinion. Defendants' expert states that Parajon reported at the time of this examination that he had no current residual effect from the incident.<sup>88</sup> The expert's impression is that "it is not clear what caused Mr. Parajon's symptoms back then which would not appear to be attributable to this

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<sup>&</sup>lt;sup>84</sup> *Id.* at 809; *McMullen*, 900 A.2d at 117.

<sup>&</sup>lt;sup>85</sup> See Minner, 791 A.2d at 858 (citing an article stating that exposure to organic solvents can cause encephalopathy).

<sup>&</sup>lt;sup>86</sup> Smack-Dixon, 2021 WL 3012056, at \*5.

<sup>&</sup>lt;sup>87</sup> See Kannankeril, 128 F.3d at 808 (in attacking a differential diagnosis, if defendant points to a cause of plaintiff's injuries other than defendant's actions, plaintiff is required to offer a good explanation as to why his or her expert's opinions remain reliable).

<sup>&</sup>lt;sup>88</sup> D.I. 208, Pl.'s Resp. for Further Analysis, Ex. F at 5.

stripping product." Thus, the record does not reflect an alternative diagnosis that Dr. Cohen failed to consider.89

The court "must be careful not to mistake credibility questions for admissibility questions."90 Defendants' challenges to Dr. Cohen are credibility questions. Thus, their attack on him, including his diagnostic method of conducting an exam via a telehealth video connection, the length of Parajon's exposure, alleged contradictory statements by Parajon, and sources which indicated that any symptoms from an exposure to EGBE would resolve, are properly addressed through crossexamination, not exclusion of the testimony.<sup>91</sup>

#### **Summary Judgment Motion** V.

Summary judgment is appropriate "if the pleadings, depositions, answers to interrogatories, and admissions on file ... show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law."92 Summary judgment can only be granted when, viewing the record in a light most favorable to the nonmoving party, there is no material issue of fact.<sup>93</sup>

The Court has denied Defendants' Daubert Motions and thus, genuine issues as to material facts remain. As such, summary judgment must be denied.

<sup>&</sup>lt;sup>89</sup> See Kannankeril, 128 F.3d at 808.

<sup>&</sup>lt;sup>90</sup> *Id.* at 809.

<sup>&</sup>lt;sup>91</sup> *Minner*, 791 A.2d at 858.

<sup>&</sup>lt;sup>92</sup> Super. Ct. Civ. R. 56(c).

<sup>93</sup> Burkhart v. Davies, 602 A.2d 56, 59 (Del. 1991).

VI. <u>Conclusion</u>

Parajon has proffered expert opinions from Dr. Cohen and Mr. High which

are sufficiently relevant and based on reliable methodologies, and are, therefore,

admissible. As such, Defendants' Daubert Motions are denied.

Defendants' Summary Judgment Motion is denied as moot and because they

cannot show that they are entitled to judgment as a matter of law.

IT IS SO ORDERED.

/s/Kathleen M. Miller

Judge Kathleen M. Miller

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