

IN THE SUPREME COURT OF THE STATE OF DELAWARE

WENDOLYN TUMLINSON, JAKE	§	
ALBERT TUMLINSON, JILLVEH	§	
ONTIVEROS and PARIS	§	No. 672, 2012
ONTIVEROS, by her natural mother	§	
and next friend JILLVEH	§	Court Below: Superior Court of
ONTIVEROS,	§	the State of Delaware, in and for
	§	New Castle County
Plaintiffs Below,	§	
Appellants,	§	C.A. No. 08C-07-106
	§	
v.	§	
	§	
ADVANCED MICRO DEVICES, INC.	§	
	§	
Defendant Below,	§	
Appellee.	§	

Submitted: November 6, 2013  
Decided: November 21, 2013

Before **STEELE**, Chief Justice, **JACOBS** and **RIDGELY**, Justices.

Upon Remand from the Superior Court. **AFFIRMED.**

Ian Connor Bifferato, Richard S. Gebelein, Thomas F. Driscoll, III and J. Zachary Haupt, Esquires, Bifferato LLC, Wilmington, Delaware; Of Counsel: Steven J. Phillips and Victoria E. Phillips, Esquires, Phillips & Paolicelli, LLP, New York, New York; Thornton & Naumes, LLP, Boston, Massachusetts, for Appellants.

Frederick L. Cottrell, III, and Travis S. Hunter, Esquires, Richards, Layton & Finger, P.A., Wilmington, Delaware; Of Counsel: Stacey A. Martinez and Marcy Hogan Greer, Esquires, Fulbright & Jaworski L.L.P., Austin, Texas; Stephen C. Dillard, Esquire, Fulbright & Jaworski L.L.P., Houston, Texas; Lisa Horvath Shub, Esquire, Fulbright & Jaworski L.L.P., San Antonio, Texas, for Appellee.

**JACOBS**, Justice:

This is an appeal from a final judgment of the Superior Court in favor of the defendants. In this action, the Plaintiff-Appellants assert various tort claims against Advanced Micro Devices, Inc. (“AMD”). AMD moved to exclude certain expert testimony under Delaware Rule of Evidence 702—a motion that the Superior Court granted after determining that the evidence was not relevant. Plaintiff-Appellants timely appealed to this Court, which remanded the case to the Superior Court for further findings related to the expert testimony’s admissibility. On remand, the Superior Court found that the expert testimony was unreliable and therefore inadmissible. We conclude that the Superior Court did not abuse its discretion in finding the expert testimony unreliable, and affirm its judgment. As a result, we do not reach or address the question of whether the trial court properly concluded that the evidence was not relevant under D.R.E. 702.

## I. FACTUAL AND PROCEDURAL HISTORY<sup>1</sup>

Defendant-Appellee AMD, a Delaware corporation headquartered in California, specializes in manufacturing computer processors and other

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<sup>1</sup> Because the parties have already litigated several issues in this matter, the facts are drawn from the prior opinions determining those issues. *See Tumlinson v. Advanced Micro Devices, Inc. (Tumlinson IV)*, C.A. No. 08C-07-107 (Del. Super. Oct. 15, 2013); *Tumlinson v. Advanced Micro Devices, Inc. (Tumlinson III)*, 2013 WL 4399144 (Del. Aug. 16, 2013) (affirming trial judge’s application of Texas substantive law and Delaware procedural law, but remanding for a reliability assessment of the expert testimony); *Tumlinson v. Advanced Micro Devices, Inc. (Tumlinson II)*, 2012 WL 1415777 (Del. Super. Jan. 6, 2012) (granting a motion to exclude expert testimony); *Tumlinson v. Advanced Micro Devices, Inc. (Tumlinson I)*, 2010 WL 8250792 (Del. Super. July 23, 2010) (granting motions to apply Texas substantive law and to sever claims for separate trials). At this stage of the litigation, we focus on the procedural history.

components. Plaintiff-Appellant Wendolyn Tumlinson and Anthony Ontiveros, the father of Plaintiff-Appellant Paris Ontiveros, (collectively, the “Plaintiffs”), worked in AMD’s semiconductor manufacturing facilities in San Antonio, Texas and Austin, Texas, respectively.<sup>2</sup>

Tumlinson’s son, Jake, was born on July 5, 1987 with several birth defects, including anal atresia and stenosis, neurogenic bladder, renal agenesis/hypoplasia, imperforate anus, and colo-vesicular fistula. Those birth defects, in combination, are referred to as “VATER association.” That combination or syndrome of birth defects occasionally appears in the general population. Tumlinson continued to work for AMD after Jake’s birth and in 1988 had a second child who had no birth defects.<sup>3</sup>

Ontiveros gave birth to a daughter, Paris, on August 12, 1994. Paris was born with pulmonic stenosis, congenital pulmonary valve atresia, ventricular septal defect, right pulmonary hypoplasia, lower limb reduction defects, and situs inversus with dextrocardia. Like VATER association, these defects also sometimes appear in the general population. Later, Ontiveros had another child while she was working for AMD. That child was born without any birth defects.<sup>4</sup>

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<sup>2</sup> For further discussion of the day-to-day tasks and exposure to chemicals within the plants, see *Tumlinson I*, 2010 WL 8250792, at \*1 and *Tumlinson II*, 2012 WL 1415777, at \*1.

<sup>3</sup> *Tumlinson II*, 2012 WL 1415777, at \*2.

<sup>4</sup> *Id.* at \*1.

On July 11, 2008, Plaintiffs sued AMD in the Superior Court on claims of negligence, premises liability, strict liability, abnormally dangerous ultra hazardous activity, and willful and wanton misconduct. The Plaintiffs claimed that the birth defects of Jake and Paris resulted from their parents' exposure to chemicals at AMD's Texas semiconductor plants.<sup>5</sup> In April 2010, AMD moved to sever Plaintiffs' claims for separate trials and also for a determination that Texas substantive law would govern both liability and damages issues. The Superior Court granted those motions in July 2010, but also concluded that Delaware law would apply to procedural issues.

On December 15, 2010, after the close of discovery, AMD moved *in limine* to exclude the testimony of the Plaintiffs' expert, Dr. Linda Frazier, claiming that it was unreliable and not relevant under Delaware Rule of Evidence 702. Dr. Frazier, an epidemiologist who has both a medical degree and a master's degree in public health, was to testify that Plaintiffs' exposure to chemicals while working at AMD caused Jake's and Paris's birth defects. After holding a four-day *Daubert* hearing<sup>6</sup> in April 2011, the Superior Court ultimately excluded Dr. Frazier's testimony. The trial court concluded that Dr. Frazier's testimony was not relevant

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<sup>5</sup> *Tumlinson I*, 2010 WL 8250792, at \*1.

<sup>6</sup> A *Daubert* hearing refers to a pre-trial hearing in which a trial court determines the admissibility of expert testimony under the relevant rule of evidence. *See Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993). For a more detailed discussion of *Daubert*'s importance under D.R.E. 702, see Part III.A *infra*.

as a matter of Delaware procedural law because her methodology was inadequate to establish causation under Texas substantive law.<sup>7</sup> After this Court refused Plaintiffs' petition to accept an interlocutory appeal, the parties stipulated to a final judgment in favor of AMD, to enable the Plaintiffs to perfect an appeal from the Superior Court's determination to apply Texas substantive law and to exclude Dr. Frazier's testimony.<sup>8</sup>

On that appeal, we affirmed the trial court's determination to apply Texas substantive law and Delaware procedural law.<sup>9</sup> However, we reserved any determination of admissibility, and remanded the case to the Superior Court with instructions to determine the reliability of Dr. Frazier's testimony under Delaware law.<sup>10</sup>

On remand, the trial court engaged in an analysis prescribed by the United States Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*,<sup>11</sup> to

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<sup>7</sup> The court based its ruling on *Merrell Dow Pharmaceuticals, Inc. v. Havner*, 953 S.W.2d 706 (Tex. 1997), and *Merck & Co. v. Garza*, 347 S.W.3d 256 (Tex. 2011). In *Tumlinson II*, the trial court subsumed a reliability analysis, *as a matter of Texas substantive law*, within its admissibility determination as to the expert testimony's relevance under D.R.E. 702—a matter of Delaware procedural law. See *Tumlinson II*, 2012 WL 1415777.

<sup>8</sup> *Tumlinson v. Advanced Micro Devices, Inc.*, C.A. No. 08C-07-106, at 4 (Del. Super. Nov. 29, 2012).

<sup>9</sup> *Tumlinson III*, 2013 WL 4399144, at \*3 (Del. Aug. 16, 2013).

<sup>10</sup> *Id.* at \*4. In its first assessment, the Superior Court concluded that the testimony was inadmissible because it was not relevant.

<sup>11</sup> 509 U.S. 579 (1993).

determine the expert testimony's reliability.<sup>12</sup> In its reliability analysis, the trial court relied, in part, upon the same Texas cases upon which the trial court had previously relied in its earlier relevancy analysis.<sup>13</sup> Ultimately, the trial court concluded that Dr. Frazier's expert testimony was unreliable under D.R.E. 702 and excluded it from evidence.<sup>14</sup>

The case was then returned to this Court, which must now review the Superior Court's determination of the admissibility of Dr. Frazier's expert testimony. Because that is an issue of procedural law (the admissibility of evidence), we apply Delaware, not Texas, law. We find that the trial court did not abuse its discretion in concluding that the expert testimony was unreliable. For that reason we do not reach or address whether the trial court correctly concluded that the evidence was also not relevant under D.R.E. 702.

## II. STANDARD OF REVIEW

We review a trial court's decision to admit or exclude expert evidence for abuse of discretion.<sup>15</sup> "To find an abuse of discretion, there must be a showing that

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<sup>12</sup> *Tumlinson IV*, C.A. No. 08C-07-107, at 16-28 (Del. Super. Oct. 15, 2013).

<sup>13</sup> *Id.* at 10-15.

<sup>14</sup> *Id.* at 31.

<sup>15</sup> *Gen. Motors Corp. v. Grenier*, 981 A.2d 531, 536 (Del. 2009); *M.G. Bancorporation, Inc. v. Le Beau*, 737 A.2d 513, 522 (Del. 1999).

the trial court acted in an arbitrary and capricious manner.”<sup>16</sup> ““That standard applies as much to the trial court’s decisions about how to determine reliability as to [the trial court’s] ultimate conclusion.”<sup>17</sup>

### III. ANALYSIS

#### A. D.R.E. 702 and *Daubert*

Delaware Rule of Evidence 702 governs the admissibility of expert opinion testimony. The Rule provides:

If scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training or education may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.<sup>18</sup>

In *Daubert*, the United States Supreme Court held that Federal Rule of Evidence 702—the nearly identical federal counterpart to D.R.E. 702—displaced *Frye v. United States*’s<sup>19</sup> “general acceptance” test for determining the admissibility of

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<sup>16</sup> *Spencer v. Wal-Mart Stores E., LP*, 930 A.2d 881, 887 (Del. 2007) (citing *Chavin v. Cope*, 243 A.2d 694, 695 (Del. 1968)).

<sup>17</sup> *Grenier*, 981 A.2d at 536 (citing *Kuhmo Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999)); *M.G. Bancorporation*, 737 A.2d at 522 (citing *Kuhmo Tire*, 526 U.S. at 152).

<sup>18</sup> D.R.E. 702.

<sup>19</sup> 293 F. 1013 (D.C. Cir. 1923).

expert opinion testimony.<sup>20</sup> This Court, in *M.G. Bancorporation, Inc. v. Le Beau*,<sup>21</sup> adopted *Daubert* and its progeny, as the “correct interpretation of Delaware Rule of Evidence 702.”<sup>22</sup>

*Daubert* describes Rule 702’s “overarching subject [a]s the scientific validity—and thus the evidentiary *relevance* and *reliability*—of the principles that underlie a proposed submission.”<sup>23</sup> For proffered expert testimony to be admissible, the trial court must act as a gatekeeper to determine whether the expert opinion testimony is both (i) relevant and (ii) reliable.<sup>24</sup> Therefore, “a trial judge may preclude the evidence as inadmissible if it is either irrelevant or unreliable.”<sup>25</sup>

For expert opinion testimony to be relevant under *Daubert*, it must relate to an “issue in the case”<sup>26</sup> and “assist the trier of fact to understand the evidence or to determine a fact issue.”<sup>27</sup> Although Rule 702 requires that the witness be an

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<sup>20</sup> *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 589 (1993).

<sup>21</sup> 737 A.2d 513 (Del. 1999).

<sup>22</sup> *Id.* at 522.

<sup>23</sup> *Daubert*, 509 U.S. at 594–95 (emphasis added).

<sup>24</sup> *Kuhmo Tire Co. v. Carmichael*, 526 U.S. 137, 141 (1999) (stating that expert opinion testimony is admissible “only if it is both relevant and reliable”).

<sup>25</sup> *Tumlinson III*, 2013 WL 4399144, at \*4 (Del. Aug. 16, 2013).

<sup>26</sup> *Daubert*, 509 U.S. at 591.

<sup>27</sup> *Id.* (citing Fed. R. Evid. 702).



“expert by knowledge, skill, experience, training or education,”<sup>28</sup> those qualifications are not the exclusive or sole indicia of reliability.<sup>29</sup>

To determine reliability under *Daubert*, a trial court must consider a non-exhaustive list of factors. Those factors include: (1) whether the expert opinion testimony “can be (and has been) tested,” (2) “whether it has been subjected to peer review and publication,” (3) “its known or potential error rate,” and (4) “whether it has attracted widespread acceptance within a relevant scientific community.”<sup>30</sup>

The United States Supreme Court has emphasized that those factors are not a “definitive checklist.”<sup>31</sup> “[W]hether *Daubert*’s specific factors are, or are not, reasonable measures of reliability in a particular case is a matter that the law grants the trial judge broad latitude to determine.”<sup>32</sup> Although *Daubert* emphasized that the trial court’s Rule 702 inquiry is a “flexible one,” the inquiry “must be solely [focused] on principles and methodology, not on the conclusions that they

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<sup>28</sup> D.R.E. 702.

<sup>29</sup> *Eskin v. Carden*, 842 A.2d 1222, 1228 (Del. 2004); *Goodridge v. Hyster Co.*, 845 A.2d 498, 503 (Del. 2004).

<sup>30</sup> *Daubert*, 509 U.S. at 580.

<sup>31</sup> *Id.* at 593.

<sup>32</sup> *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 153 (1999).

generate.”<sup>33</sup> Moreover, in this context, a trial court may have to engage in a two-layered reliability analysis:

If the foundational data underlying opinion testimony are unreliable, an expert will not be permitted to base an opinion on that data because any opinion drawn from that data is likewise unreliable. Further, an expert’s testimony is unreliable even when the underlying data are sound if the expert draws conclusions from that data based on flawed methodology.<sup>34</sup>

In this case we previously affirmed the Superior Court’s decision to apply Texas substantive law and Delaware procedural law.<sup>35</sup> The admissibility of expert testimony is a procedural issue governed by Delaware law, including *Daubert* and its progeny. Limiting our analysis to the issue of reliability, we apply these legal precepts to the expert testimony at issue in this case.

**B. The Trial Court’s Application of the *Daubert* Factors on Reliability**

**1. The Nature of Dr. Frazier’s Testimony**

Dr. Frazier’s expert testimony was based on her analysis of numerous peer-reviewed articles and studies. Plaintiffs contend that the quantum of underlying foundational evidence supports their claim that the trial court abused its discretion in finding Dr. Frazier’s testimony inadmissible. AMD responds that the trial court did not abuse its discretion, because there are numerous analytical gaps in Dr.

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<sup>33</sup> *Daubert*, 509 U.S. at 595.

<sup>34</sup> *Merrell Dow Pharms., Inc. v. Havner*, 953 S.W.2d 706, 714 (Tex. 1997).

<sup>35</sup> *Tumlinson III*, 2013 WL 4399144, at \*3 (Del. Aug. 16, 2013).

Frazier’s methodology that render her opinion unreliable and, therefore, inadmissible.

Because the reliability of the foundational sources was never a central issue,<sup>36</sup> this Court is concerned only with the reliability of the methodology the expert used to arrive at her opinions from those sources—not the reliability of the sources themselves. This Court will not usurp the gatekeeping function of the trial court unless it is shown that the trial court abused its discretion in finding the testimony inadmissible. As gatekeeper, the trial court had the benefit of a four-day *Daubert* hearing, which included extensive cross-examination of Dr. Frazier and numerous studies. We will not disturb the trial court’s result unless its analysis is found to be arbitrary and capricious.

## **2. *The Superior Court’s Daubert Analysis***

One of the *Daubert* factors is whether the expert’s hypothesis is testable. Although agreeing it is not necessary to “expose humans to harmful chemicals for a controlled, clinical experiment,”<sup>37</sup> even Dr. Frazier acknowledged that ““in designing a proper epidemiologic study, it is important to properly define the

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<sup>36</sup> See App. to Opening Br. at A1653; *Tumlinson IV*, C.A. No. 08C-07-107, at 19 (Del. Super. Oct. 15, 2013) (“In summary, as to Dr. Frazier’s general causation opinion, she has found reliable foundational studies suggesting an association between working in the semiconductor industry and reproductive problems.”).

<sup>37</sup> *Tumlinson IV*, C.A. No. 08C-07-107, at 17.

characteristics of the group being studied.”<sup>38</sup> Dr. Frazier was unable to identify which specific chemicals, either individually or in combination, caused the Plaintiffs’ “very different” birth defects.<sup>39</sup> Dr. Frazier also failed to distinguish between the Plaintiffs’ differing work environments<sup>40</sup> and how those environments may have impacted exposure levels.<sup>41</sup> The trial court concluded that Dr. Frazier’s opinion, though not required to actually be tested, lacked the specificity required to pass muster under *Daubert*’s “testability” factor. The trial court did not abuse its discretion in so concluding. The testability factor alone, however, is not dispositive of a *Daubert* reliability analysis.

A second reliability factor contemplated by *Daubert* is whether the expert’s methods were subject to the rigors of peer review and publication. The trial court recognized that “[Dr. Frazier] ha[d] found *reliable foundational studies*” that were

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<sup>38</sup> *Id.*

<sup>39</sup> *Id.*

<sup>40</sup> The Plaintiffs worked in AMD plants located in two different cities. Tumlinson “worked as a fab operator in AMD’s San Antonio, Texas photolithography department” where she “operated a ‘stepper/aligner’ tool that was cleaned daily with isopropyl alcohol and acetone.” *Tumlinson II*, 2012 WL 1415777, at \*1 (Del. Super. Jan. 6, 2012). “There also were other organic solvents, including xylene and glycol ethers, in the tight quarters where Tumlinson worked.” *Id.* Ontiveros worked as an “etch operator” in AMD’s Austin facility, where he “dipped computer parts into baths containing a sulfuric acid-hydrogen peroxide mixture.” *Id.* “He then dipped the parts into a hydrofluoric acid and ammonium fluoride bath. Ontiveros refilled the chemical baths two or three times per shift.” *Id.*

<sup>41</sup> *Tumlinson IV*, C.A. No. 08C-07-107, at 18.

subjected to peer review.<sup>42</sup> The trial court interpreted Dr. Frazier’s methodology to be that “because her personal opinion was formed by synthesizing peer reviewed foundational studies, that is as strong as if her opinion was peer reviewed.”<sup>43</sup> In rejecting Dr. Frazier’s methodology, the trial court noted the importance of a layered reliability analysis, which requires that an expert’s opinion, even if based on reliable, peer-reviewed sources, demonstrate independent indicia of reliability. Plaintiffs contend that Dr. Frazier’s methods were peer reviewed (and therefore reliable) because “three prominent expert physicians and scientists endorsed Dr. Frazier’s opinions.”<sup>44</sup> But, nothing in the record indicates that Dr. Frazier submitted her methods and conclusions to any scientific journal or publication for review before this litigation. That three other experts “endorsed” Dr. Frazier’s opinions—in the midst of ongoing litigation—does not constitute “peer review” as envisioned by *Daubert*.<sup>45</sup>

Courts also frequently consider, as did the trial court, whether the expert opinion was formed outside of litigation.<sup>46</sup> Plaintiffs argue that the generic label of

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<sup>42</sup> *Id.* at 19 (emphasis added).

<sup>43</sup> *Id.*

<sup>44</sup> App. Opening Supp. Br. at \*6.

<sup>45</sup> *Daubert* describes the peer review process as the “submission to the scrutiny of the scientific community.” *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 593 (1993) (citations omitted).

<sup>46</sup> *See Daubert v. Merrell Dow Pharms., Inc. (Daubert II)*, 43 F.3d 1311, 1317 (9th Cir. 1995).

“conclusions developed for litigation” “could be leveled against virtually any expert.”<sup>47</sup> To be sure, every trial expert witness will necessarily form an opinion or draft a report for purposes of litigation. What is important, however, is whether the opinion or conclusion offered in litigation is consistent with, or based on, the expert’s research and experience developed outside the litigation context.<sup>48</sup> Here, the trial court discounted the expert testimony’s reliability because “Dr. Frazier’s findings were made for this litigation.”<sup>49</sup> We find no reason to reject that conclusion.

To establish reliability an expert may also rely on techniques that have gained widespread acceptance in the scientific community.<sup>50</sup> In order to establish reliability in this manner, “the experts must explain precisely how they went about reaching their conclusions and point to some objective source . . . to show that they have followed the scientific method, as it is practiced by (at least) a recognized minority of scientists in their field.”<sup>51</sup> The parties agree that epidemiologists

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<sup>47</sup> Opening Supp. Br. at 6.

<sup>48</sup> See *Daubert II*, 43 F.3d at 1317 (“One very significant fact to be considered is whether the experts are proposing to testify about matters growing naturally and directly out of research they have conducted independent of the litigation, or whether they have developed their opinions expressly for the purposes of testifying.”).

<sup>49</sup> *Tumlinson IV*, C.A. No. 08C-07-107, at 20 (Del. Super. Oct. 15, 2013).

<sup>50</sup> *Daubert*, 509 U.S. at 594.

<sup>51</sup> *Daubert II*, 43 F.3d at 1319.

routinely rely on two methods to establish causation: the Bradford-Hill factors and the weight-of-the-evidence analysis. The Bradford-Hill factors permit epidemiologists to infer a causal relationship from an association of variables, which include: 1) temporal relationship, 2) strength of relationship, 3) dose-response relationship, 4) replication of the findings, 5) biological plausibility, 6) consideration of alternative explanations, 7) cessation of exposure, 8) specificity of the association, and 9) consistency with other knowledge.<sup>52</sup> The “weight-of-the-evidence [analysis], on the other hand, allows an expert to fit all the sources together like a puzzle.”<sup>53</sup> The Superior Court acknowledged that although “there is no generally agreed upon method for weighing different data,” Dr. Frazier was required to “detail her method of weighing the importance and validity of each data source to assemble a cohesive picture.”<sup>54</sup>

The Superior Court concluded that Dr. Frazier did not adequately “articulate her thought process, evaluation methods, and conclusions to establish reliability.” The court based that conclusion on its evaluation of the studies and testimony presented, and their failure to “fit” this case.<sup>55</sup> Although Dr. Frazier was found to

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<sup>52</sup> *Tumlinson IV*, C.A. No. 08C-07-107, at 22 (citing *King v. Burlington Northern Santa Fe Railway Co.*, 762 N.W.2d 24, 40 (Neb. 2009) (citing Reference on Manual on Scientific Evidence 376 (Federal Judicial Center 2d ed. 2000))).

<sup>53</sup> *Id.*

<sup>54</sup> *Id.* at 26.

<sup>55</sup> *Id.* at 27.

be “well-qualified,”<sup>56</sup> her qualifications alone were not enough to overcome the “gaps”<sup>57</sup> in her methodology used to synthesize the foundational sources relied upon to reach her ultimate conclusion. After reviewing the record, we agree with the trial court’s finding that Dr. Frazier’s conclusory testimony did not adequately detail her methodology under either scientific technique.

### **C. The Trial Court’s Misapplication of Texas Substantive Law on Reliability**

Under D.R.E. 702, a reliability analysis is a flexible one and may encompass many factors, including factors not articulated in *Daubert*.<sup>58</sup> In addition to *Daubert*’s four factors, the trial court consulted the same two Texas cases upon which it relied in its relevancy determination.<sup>59</sup> Although in different circumstances those cases may be non-binding, persuasive authority, they are inapposite here—and the trial court should not have relied upon them—because of their different procedural postures.<sup>60</sup> Those cases analyzed reliability under Texas

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<sup>56</sup> *Id.* at 30.

<sup>57</sup> *Id.* at 27.

<sup>58</sup> *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 593-94 (1993).

<sup>59</sup> The trial court consulted *Merrell Dow Pharmaceuticals, Inc. v. Havner*, 953 S.W.2d 706 (Tex. 1997) and *Merck & Co. v. Garza*, 347 S.W.3d 256 (Tex. 2011), in its D.R.E. 702 reliability analysis.

<sup>60</sup> The *Garza* court considered the reliability of expert testimony while assessing the sufficiency of the evidence on the element of causation. *Garza*, 347 S.W.3d 256. *Havner* similarly involved the Texas Supreme Court’s assessment of whether the plaintiff’s evidence of causation was sufficient to sustain the jury’s verdict. *Havner*, 953 S.W.2d 706. *Daubert* warned against conflating issues of reliability and *admissibility* of expert evidence with those of reliability and



law, but they did so to determine whether causation had been proved—a substantive issue. Here, the issue was the admissibility of evidence—a procedural matter that is governed by Delaware law. Although the trial court should not have consulted the Texas cases, the trial court did not abuse its discretion in concluding that the evidence was unreliable, because it arrived at the same outcome after independently applying the *Daubert* factors.

The Superior Court—after hearing four days of testimony at a *Daubert* hearing, after evaluating the voluminous studies contained in the record, after presiding over oral argument on the issue, and after reviewing the various affidavits submitted by Dr. Frazier and her colleagues—did not abuse its discretion as a gatekeeper when it found Dr. Frazier’s expert testimony unreliable. Accordingly, we uphold the final judgment of the Superior Court.

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*sufficiency* of expert evidence. *Daubert*, 509 U.S. at 595-97. The United States Supreme Court in *Daubert* suggested that “in the event the trial court concludes that the scintilla of evidence presented supporting a position is insufficient to allow a reasonable juror to conclude that the position more likely than not is true, the court remains free to direct a judgment and likewise to grant summary judgment.” *Id.* at 596. “[R]ather than wholesale exclusion,” procedural devices such as summary judgment and directed verdict “are the appropriate safeguards where the basis of scientific testimony meets the standards of Rule 702.” *Id.* Thus, trial courts must assess the evidence in its proper context to avoid making a premature assessment of its sufficiency when inquiring about its admissibility.

#### **IV. CONCLUSION**

Accordingly, we AFFIRM the judgment of the Superior Court to exclude the admission of the expert testimony on the basis that it was unreliable under the factors articulated in *Daubert*. Jurisdiction is not retained.