

United States District Court, Northern District of Illinois

Name of Assigned Judge or Magistrate Judge	Amy J. St. Eve	Sitting Judge if Other than Assigned Judge	
CASE NUMBER	08 C 242	DATE	9/3/2010
CASE TITLE	LG Electronics vs. Whirlpool Corp.		

DOCKET ENTRY TEXT

Plaintiff's motion to exclude the expert testimony and strike the expert reports and opinions of Dr. Subbaiah Malladi [375] is granted in part and denied in part.

■ [For further details see text below.]

Notices mailed by Judicial staff.

STATEMENT

Plaintiff, LG Electronics U.S.A., Inc. ("LG"), has filed a motion ("Motion") to exclude the opinions and testimony of Dr. Subbaiah Malladi, one of Defendant Whirlpool Corporation's ("Whirlpool") experts. The Court held a *Daubert* hearing on July 15, 2010, during which Dr. Malladi testified for most of the day. For the following reasons, the Court grants in part and denies in part the Motion.

LEGAL STANDARD

"The admissibility of expert testimony is governed by Federal Rule of Evidence 702 and the Supreme Court's opinion in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993)." *Lewis v. Citgo Petroleum Corp.*, 561 F.3d 698, 705 (7th Cir. 2009). Rule 702 provides, in relevant part, that "[i]f scientific, technical or other specialized knowledge will assist the trier of fact[,] . . . a witness qualified as an expert by knowledge, skill, experience, training or education, may testify thereto in the form of an opinion. . . ." *Id.* The Rule "also requires that: (1) the testimony must be based upon sufficient facts or data; (2) it must be the product of reliable principles and methods; and (3) the witness must have applied the principles and methods reliably to the facts of the case." *Happel v. Walmart Stores, Inc.*, 602 F.3d 820, 824 (7th Cir. 2010).

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Under the expert-testimony framework, courts perform the gatekeeping function of determining prior to admission whether the expert testimony is both relevant and reliable. *See id.*; *United States v. Pansier*, 576 F.3d 726, 737 (7th Cir. 2009) (“To determine reliability, the court should consider the proposed expert’s full range of experience and training, as well as the methodology used to arrive [at] a particular conclusion.”). In doing so, courts employ a three-step analysis: “[T]he witness must be qualified as an expert by knowledge, skill, experience, training, or education[;] the expert’s reasoning or methodology underlying the testimony must be scientifically reliable; and the testimony must assist the trier of fact to understand the evidence or to determine a fact in issue.” *Ervin v. Johnson & Johnson, Inc.*, 492 F.3d 901, 904 (7th Cir. 2007) (internal quotations and citations omitted); *see also Pansier*, 576 F.3d at 737. As the Seventh Circuit instructs, “[t]he focus of the district court’s *Daubert* inquiry must be solely on principles and methodology, not on the conclusions they generate.” *Winters v. Fru-Con Inc.*, 498 F.3d 734, 742 (7th Cir. 2007) (quoting *Chapman v. Maytag Corp.*, 297 F.3d 682, 687 (7th Cir. 2002)). “The goal of *Daubert* is to assure that experts employ the same ‘intellectual rigor’ in their courtroom testimony as would be employed by an expert in the relevant field.” *Jenkins v. Bartlett*, 487 F.3d 482, 489 (7th Cir. 2007) (quoting *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152, 119 S. Ct. 1167 (1999)).

In *Daubert*, the Supreme Court offered the following non-exclusive factors to aid courts in determining whether a particular expert opinion is grounded in a reliable scientific methodology: (1) whether the proffered theory can be and has been tested; (2) whether the theory has been subjected to peer review and publication; (3) whether the theory has a known or potential rate of error; and (4) whether the relevant scientific community has accepted the theory. *See Happel*, 602 F.3d at 824; *Winters*, 498 F.3d at 742. Further, the 2000 Advisory Committee’s Notes to Rule 702 list the following additional factors for gauging an expert’s reliability: (1) whether the testimony relates to “matters growing naturally and directly out of research . . . conducted independent of the litigation”; (2) “[w]hether the expert has unjustifiably extrapolated from an accepted premise to an unfounded conclusion”; (3) “[w]hether the expert has adequately accounted for obvious alternative explanations”; (4) “[w]hether the expert is being as careful as he would be in his regular professional work outside paid litigation consulting”; and (5) “[w]hether the field of expertise claimed by the expert is known to reach reliable results for the type of opinion the expert would give.” *Id.* (internal quotations omitted); *see also American Honda Motor Co. v. Allen*, 600 F.3d 813, 817 (7th Cir. 2010); *Fuesting v. Zimmer, Inc.*, 421 F.3d 528, 534-35 (7th Cir. 2005), *vacated in part on other grounds*, 448 F.3d 936 (7th Cir. 2006); *Deputy v. Lehman Bros., Inc.*, 345 F.3d 494, 505 (7th Cir. 2003) (noting that the *Daubert* analysis is flexible); *Goodwin v. MTD Prods., Inc.*, 232 F.3d 600, 608 n.4 (7th Cir. 2000) (noting that “the *Daubert* Court ‘emphasized that it did not presume to set out a definitive checklist or test, and that the district judge’s inquiry should be flexible’” (quoting *United States v. Vitek Supply Corp.*, 144 F.3d 476, 485 (7th Cir. 1998))).

An expert may be qualified to render opinions based on experience alone. “In certain fields, experience is the predominant, if not the sole basis for a great deal of reliable expert testimony.” Advisory Committee Notes to Rule 702. The Seventh Circuit has repeatedly stated that “genuine expertise may be based on experience or training.” *United States v. Conn*, 297 F.3d 548, 556 (7th Cir. 2002) (quoting *Tyus v. Urban Search Mgmt.*, 102 F.3d 256, 263 (7th Cir. 1996)). “[W]hile extensive academic and practical expertise in an area is certainly sufficient to qualify a potential witness as an expert, Rule 702 specifically contemplates the admission of testimony by experts whose knowledge is based on experience.” *Trustees of Chicago Painters & Decorators Pension, Health & Welfare, & Deferred Sav. Plan Trust Funds v. Royal Intern. Drywall & Decorating, Inc.*, 493 F.3d 782, 787-88 (7th Cir. 2007) (citations and quotations omitted). As such, courts “consider a proposed expert’s full range of practical experience, as well as academic or technical training, when determining whether that expert is qualified to render an opinion in a given area.” *Id.* (quoting *Smith v. Ford Motor Co.*, 215 F.3d 713, 718 (7th Cir. 2000)).

BACKGROUND

I. Dr. Malladi's Background and Experience

Dr. Malladi obtained his Ph.D. in mechanical engineering from California Institute of Technology, specializing in fluid mechanics and heat transfer. (Ex. 1, Curriculum Vitae at 1; Tr. at 4, 6.¹) He also has a bachelor of science degree in physics, chemistry, and mathematics; a bachelor of engineering degree in mechanical engineering; and a masters of technology degree in mechanical engineering. (Ex. 1, Curriculum Vitae at 1; Tr. at 4.) While attending school, Dr. Malladi took more than ten courses related to thermodynamics and a number of courses related to fluid mechanics and heat transfer. (Tr. at 6.) He is a Registered Professional Mechanical Engineer in California and New York, has four scientific publications, and has made various presentations on scientific topics. (Ex. 1, Curriculum Vitae at 2; Tr. at 10.) Further, he is a member of the following organizations: (1) American Institute of Aeronautics and Astronautics, (2) American Association for the Advancement of Science, (3) Combustion Institute, (4) National Fire Protection Association, and (5) Society of Automotive Engineers. (Ex. 1, Curriculum Vitae at 3; Tr. at 10.)

Dr. Malladi is the Chief Technical Officer and Corporate Vice President at Exponent Failure Analysis Associates, Inc. ("Exponent"), an engineering-consulting firm with about 900 engineering and scientific professionals. (Tr. at 8-9.) As part of his job, Dr. Malladi studies how design specifications and consumer use lead to product failure. (*Id.* at 8-9.) Dr. Malladi's investigations typically involve taking products apart, comprehensively testing them, and evaluating their design history. (*Id.* at 10.) He has analyzed washing machines, microwaves, and safety devices on Emerson Electric coffee makers. (*Id.* at 11.) He has also worked on a project that involved a fire in a dryer, during which he disassembled the dryer and made detailed measurements of it in an effort to understand why the fire had occurred. (*Id.* at 12.) Another of his projects involved an analysis of how airflow affects the spray from crop dusters. (*Id.* at 13.)

II. Dr. Malladi's Work in this Case

As explained in more detail below, Dr. Malladi reviewed dictionaries, handbooks, and encyclopedias; bought the LG, Whirlpool, and other dryers marketed as steam dryers; performed various tests; and investigated how people use the word "steam" in magazines, patents, and advertisements. (*Id.* at 16-18; Ex. 5, Reported Tests.) Whirlpool disclosed Dr. Malladi as an expert in this case to "evaluate Whirlpool's use of the word steam in connection with the performance of Whirlpool's Duet Steam Dryer relative to LG Electronics' (LG) claims." (R. 55, Expert Decl. at 1.) He was also "asked to comment on the opinions expressed in declarations made by Dr. Anthony M. Dr. Jacobi, Mr. Tae Jin Lee, and Dr. Chul Jin Choi." (*Id.*; *see also* Tr. at 14-15.) In addition, Whirlpool asked Dr. Malladi to "evaluate both the Duet Steam dryer and the LG Steam Dryer . . . relative to the temperature and humidity environment experienced by clothing during various cycles where steam use is claimed." (R. 55, Expert Decl. at 1-2.) Dr. Malladi created six reports in connection with this case. (Tr. at 15.) In those reports, Dr. Malladi opined that LG's assertion that the Whirlpool dryer does not create steam is not accurate. (*Id.* at 16.) Specifically, Dr. Malladi's opinion is that the Whirlpool dryer creates steam, as "authoritative references" and consumer publications use that word. (*Id.* at 24-25.)

ANALYSIS

LG issues numerous challenges to Dr. Malladi's opinions. The Court addresses each in turn.

¹ "Tr." refers to the July 15, 2010, *Daubert* hearing transcript.

I. Opinion that Water Vapor Exceeds 100° C

LG challenges Dr. Malladi's opinion that Webster's New Third International Dictionary contains two definitions for steam: (1) the invisible vapor into which water is converted when heated to the boiling point, and (2) water in the state of vapor. According to Dr. Malladi, LG expert Dr. Jacobi ignored the second definition, which "does not require the water or vapor to be heated to the boiling point." (R. 390, Resp. Br. at 8 (quoting 3/2/09 Dr. Malladi Report at ¶ 26).) Based on Whirlpool's position that "Dr. Malladi does not render the opinion that the Whirlpool steam dryer boils water" (*id.*), LG argues that Dr. Malladi should not be able to opine that the Whirlpool dryer creates steam defined as "the invisible vapor into which water is converted when heated to a boiling point." (R. 376, Reply Br. at 7 (quoting 3/2/09 Decl. at ¶¶ 26-27).) Specifically, Whirlpool argues that this opinion is irrelevant, confusing, and highly prejudicial because the only definition for which the 100° C threshold is relevant is no longer a subject of Dr. Malladi's opinion.²

While Dr. Malladi does not contend that the Whirlpool dryer creates steam under the first definition provided above, his opinion is still relevant to show that Dr. Jacobi's definition of steam is overly restrictive. Further, his testimony regarding the temperature of water vapor inside the Whirlpool dryer will help the jury obtain a complete picture of what happens in that dryer. Dr. Malladi, for example, conducted temperature tests in the Whirlpool dryer. (Tr. 33-42; Ex. 6, Sample Results; Ex. 7, Temperature Contour Maps; Ex. 8, Sample Images; Ex. 9, Sample Results; Ex. 10, Time History of Temperatures.) According to those tests, in certain regions of the Whirlpool dryer, the temperature exceeded 100° C (Tr. at 36-38, 41-42; Ex. 9, Sample Results), and Dr. Malladi testified that water vapor injected into the dryer will have the same temperature as the air. (Tr. at 42-43, 46, 62-64; Ex. 11, Sample Results.)

To the extent LG argues that this information will confuse the jury by giving them the false impression that the Whirlpool dryer creates steam by boiling water, LG will be able to clarify the issue on cross examination and in argument. *See Allen*, 600 F.3d at 818; *Gayton v. McCoy*, 593 F.3d 610, 616 (7th Cir. 2010). Indeed, Dr. Malladi testified during the Daubert hearing that water and water droplets are not boiled in the Whirlpool dryer. (Tr. at 126, 129.) Accordingly, the Court denies this aspect of LG's Motion.

II. Opinion that the Whirlpool Dryer Contains Steam as "Vapor Arising from a Heated Surface" and the "Vapor Phase of Water"

LG next takes issue with Dr. Malladi's opinion that

[i]n the Whirlpool Steam Dryer, for either of the steam cycles, dry clothes are placed in the dryer. Vapor is generated when moisture is added to the heat drum and the warm clothing. Vapor is also generated when the moistened fabric is subsequently dried. Since this vapor rises from a heated surface, it is unambiguously "steam." The drum of the Whirlpool Dryer contains such steam from the time moisture is added into the drum until the time that the clothes have dried.

(R. 392, Reply Br. at 4 (quoting 3/2/09 Dr. Malladi Report at ¶ 17).) Dr. Malladi bases this conclusion, LG argues, on the belief "that 'when water evaporates, you get steam' and the 'product of evaporation is steam,'" which is "patently absurd," "eviscerates the meaning of the term" steam, is based on "no scientific analysis," and – because Dr. Malladi simply notes the definition without having tested whether water evaporates inside the Whirlpool dryer – will not assist the jury. (R. 376, Opening Br. at 9-11 (quoting Dr. Malladi Dep. at 66, 68).)

² 100° C is the boiling point of water, assuming pressure of one standard atmosphere. (Tr. at 28.)

Whirlpool responds that Dr. Malladi bases his opinion on “numerous temperature and dew point tests” and “hours of observation.” (R. 390, Reply Br. at 10.) Further, Whirlpool notes that even LG’s expert agrees that the Whirlpool dryer contains water vapor and that the evaporation-at-room-temperature example does not apply because of the heightened temperatures inside the dryer. (R. 390, Reply Br. at 10.)

After performing a number of tests – including temperature and dewpoint tests³ – and reviewing Webster’s Dictionary, the Encyclopedia of Chemical Technology, and the American Heritage Dictionary, Dr. Malladi opined that the Whirlpool dryer creates steam in the form of vapor rising from a heated surface. (Tr. at 21, 67-68.) LG’s argument that anyone could render this opinion ignores the fact that “a trial court is not compelled to exclude expert testimony ‘just because the testimony may, to a greater or lesser degree, cover matters that are within the average juror’s comprehension.’” *Tyus*, 102 F.3d at 263 (quoting *United States v. Hall*, 93 F.3d 1337, 1342 (7th Cir. 1996)); *see also United States v. Parra*, 402 F.3d 752, 759 (7th Cir. 2005). Moreover, Dr. Malladi’s opinion goes beyond what an average person could opinion on. He brings his extensive technical expertise and experience to render these opinions. Furthermore, Dr. Malladi bases his opinion on significant testing, and his explanation of the specific process in which the Whirlpool dryer creates steam will be helpful to the jury. LG’s Motion to exclude Dr. Malladi’s opinions regarding these definitions of steam is accordingly denied.

III. Other Home Appliances and Products that Use the Word “Steam”

Another of Dr. Malladi’s opinions is that the Whirlpool dryer is properly called a steam dryer because other home appliances and products similarly use the word steam. LG argues that third parties’ use of the word steam is irrelevant in this false-advertising case and that Dr. Malladi simply recites the advertisements without performing any analysis of them. (R. 376, Opening Br. at 12-13.) Whirlpool responds that Dr. Malladi’s opinion is relevant to “how the industry and consumers use the term” steam. (R. 390, Resp. Br. at 17.)

The Court has already observed that “Whirlpool has identified no binding precedent holding that the behavior of competitors is relevant to whether its own advertising claims are literally false.” *LG Elecs. U.S.A., Inc. v. Whirlpool Corp.*, 661 F. Supp. 2d 940, 948 (N.D. Ill. 2009). Even if there were such precedent, however, Dr. Malladi could not render these opinions because he has provided no analysis in making them. *See Minasian v. Standard Chartered Bank, PLC*, 109 F.3d 1212, 1216 (7th Cir. 1997) (noting “how vital it is that judges not be deceived by the assertions of experts who offer credentials rather than analysis”). As the Seventh Circuit has observed, “even the most ‘supremely qualified expert cannot waltz into the courtroom and render opinions unless those opinions are based upon some recognized scientific method and are reliable and relevant under the test set forth by the Supreme Court in *Daubert*.”” *American Honda Motor*, 600 F.3d at 817 (quoting *Clark v. Takata Corp.*, 192 F.3d 750, 759 n.5 (7th Cir. 1999)).

Whirlpool is essentially attempting to use Dr. Malladi’s status as an expert to present hearsay statements to the jury. *See Lang v. Kohl’s Food Stores, Inc.*, 217 F.3d 919, 924 (7th Cir. 2000); *Loeffel Steel Prods., Inc. v. Delta Brands, Inc.*, 387 F. Supp. 2d 794, 808 (N.D. Ill. 2005) (noting that while “Rule 703 was intended to liberalize the rules relating to expert testimony, it was not intended to abolish the hearsay rule and to allow a witness, under the guise of giving expert testimony, to in effect become the mouthpiece of the witnesses on whose statements or opinions the expert purports to base his opinion”). Indeed, Dr. Malladi agreed during the *Daubert* hearing that he was “just reading literature that [he] found on the Internet to say that the discussion of steam is

³ According to Dr. Malladi, “[d]ewpoint is another way to characterize the moisture in the air.” (Tr. at 43.) As the dewpoint increases, so does moisture. (*Id.* at 44.)

consistent with the definition of vapor arising from a heated surface.” (Tr. at 162; *see also* Tr. at 165-66.) Dr. Malladi’s opinion on this topic must be excluded.

IV. *Consumer Reports and Good Housekeeping*

LG next targets Dr. Malladi’s opinion that the Whirlpool dryer contains steam because reviews of the product in *Consumer Reports* and *Good Housekeeping* refer to it as a steam dryer. According to LG, this opinion is irrelevant, founded on hearsay, and is not based on specialized knowledge.⁴ Whirlpool responds that Dr. Malladi’s opinion is meant to rebut “LG’s assertion that Whirlpool’s products do not create steam ‘under any common and ordinary definition of the word [steam] within the context of washer and dryer systems.’” (R. 390, Resp. Br. at 16-17 (quoting LG’s 2d Supplemental Resp. to 2d Set of Interrogs. No. 2, with emphasis added).)

This opinion must be excluded for the same reason that Dr. Malladi’s “other appliances” opinion must be excluded. The Court has already noted that the underlying articles are inadmissible for the truth of the matters asserted therein. *See LG Elecs.*, 661 F. Supp. 2d at 946 n.3 (citing *Eisenstadt v. Centel Corp.*, 113 F.3d 738, 742 (7th Cir. 1997)). While experts can sometimes rely on hearsay evidence in rendering opinions, Whirlpool has failed to establish that this area is an appropriate subject for expert testimony. Furthermore, simply reading these articles does not require any specialized knowledge or skill. *See Hoffman v. Caterpillar, Inc.*, 368 F.3d 709, 714 (7th Cir. 2004). It is uncontested that Dr. Malladi did not evaluate any of the underlying tests or review any protocols used by the authors of the articles.

Whirlpool contends that it “is using these materials to show that its use of the term ‘steam’ is consistent with the use of the word by respected consumer references in the marketplace,” and that “[h]ow others use the term in the market is highly relevant to the question of whether consumers are deceived” by the use of the word “steam.” (R. 390, Resp. Br. at 16.) Dr. Malladi conceded, however, that he was not an expert regarding consumer perception or linguistics, and he did not analyze how the publications used the word steam. (Tr. at 164-65, 168.) In fact, Dr. Malladi did not interview anyone at *Consumer Reports*, and he did not consider whether the articles’ authors were confused or concerned about the Whirlpool dryer. (*Id.* at 168-69.) In addition, he did not consider whether the articles were based on scientific testing or marketing by Whirlpool. Dr. Malladi cannot opine on this topic under such circumstances. *See Dura Auto. Sys. of Ind., Inc. v. CTS Corp.*, 285 F.3d 609, 614 (7th Cir. 2002) (“The *Daubert* test must be applied with due regard for the specialization of modern science. A scientist, however well credentialed he may be, is not permitted to be the mouthpiece of a scientist in a different specialty. That would not be responsible science.”); *Minasian*, 109 F.3d at 1216 (“[A]n expert’s report that does nothing to substantiate [an] opinion is worthless, and therefore inadmissible. An opinion has a significance proportioned to the sources that sustain it. An expert who supplies nothing but a bottom line supplies nothing of value to the judicial process.” (internal quotations omitted)). In essence, Whirlpool is attempting to circumvent the hearsay rules by having its expert rely on these publications to opine that there is steam in the dryer. Its effort fails.

⁴ LG argues in its reply that Whirlpool’s failure to identify the specific *Good Housekeeping* article to which Dr. Malladi refers provides an additional reason for striking this opinion. (R. 392, Reply Br. at 7 n.2.) By raising this argument for the first time in its reply, however, LG has waived it. *See Draine v. Bauman*, – F. Supp. 2d –, No. 09 C 2917, 2010 WL 1541674, at *15 (N.D. Ill. Apr. 16, 2010); *Simonian v. Hunter Fan Co.*, No. 10 C 1212, 2010 WL 2720749, at *3 (N.D. Ill. July 8, 2010) (citing *London v. RBS Citizens, N.A.*, 600 F.3d 742, 747 (7th Cir. 2010)).

V. Use of the Word “Steam” in Other Patents

Dr. Malladi also relies on patent submissions to inform his opinion as to the proper definition of the word “steam.” (Tr. at 91-92.) First, LG claims that Dr. Malladi is not qualified to opine on the construction and meaning of patent terms, as he has never drafted or interpreted a patent. (R. 376, Opening Br. at 14.) Second, LG claims that Dr. Malladi’s opinions should be excluded because the patents are inadmissible hearsay, and Whirlpool is simply using Dr. Malladi to communicate them to the jury. (*Id.* at 15.) Finally, LG argues that use of the word “steam” in the LG patents is not relevant evidence in this false-advertising case because those patents were not used to create or market steam appliances. (*Id.*)

As stated above, parties may not use experts to simply recite otherwise-inadmissible statements. *See Loeffel Steel*, 387 F. Supp. 2d at 808. Regardless of whether Dr. Malladi is a person with ordinary skill in the art described in the patents, he is not qualified to testify regarding the significance of the steam references in the patents. He is not an expert in the construction of terms derived from patent applications (Tr. at 156), has never drafted a patent specification (*id.* at 157), has never interpreted patent claims for a court (*id.*), has never studied patent law (*id.*), has never participated in a *Markman* hearing (*id.*), and does not know who drafted the patents or who the inventors were (*id.* at 158). He also does not know if LG created any of the disclosures in the patents that he analyzed (*id.* at 157), if LG subsequently marketed those disclosures as appliances in the United States (*id.*), or if those disclosures resulted in the creation and marketing of appliances that LG calls steam appliances (*id.* at 157-58, 160-161). Further, he conceded that the patents that he reviewed did not relate to steam dryers. (*Id.* at 158.) Finally, Dr. Malladi agreed that all he was doing was “just reading statements from a patent specification or application that’s drafted by an unknown person on behalf of some unknown LG entity that [he was] attempting to provide an interpretation on.” (*Id.* at 162.)

Whirlpool argues that the patents constitute admissions under Rule 801(d)(2), but that alone would not impact the ability of Dr. Malladi to opine on them. Further, Whirlpool still has not presented evidence sufficient to establish that the patents constitute admissions by LG. As the Court stated in its summary-judgment opinion regarding the ‘674 patent, “Whirlpool has offered no evidence, for example, that the inventors are or were LG employees.” *LG Elecs.*, 661 F. Supp. 2d at 950. That finding is equally true for the statements on which Dr. Malladi relies in rendering his patent-related opinion. For these reasons, Dr. Malladi may not testify regarding his patents-based opinion.

VI. Wrinkle-Reducing and Odor-Removing Capabilities

LG next takes issue with Dr. Malladi’s opinion that the Whirlpool dryer can relax wrinkles and reduce odors, arguing that Dr. Malladi improperly bases his opinion on his own lay, non-expert use of the Whirlpool dryer and a review of *Consumer Reports* and *Good Housekeeping*. (R. 376, Opening Br. at 16-17.) The Court agrees and strikes this aspect of his opinion.

Dr. Malladi does not have first-hand scientific knowledge of this topic, and he did not conduct any testing on it. *See Chapman*, 297 F.3d at 688 (“Personal observation is not a substitute for scientific methodology and is insufficient to satisfy *Daubert*’s most significant guidepost.”). In rendering this opinion, rather, Dr. Malladi reviewed the deposition testimony of people with knowledge of the Whirlpool dryer’s design, who explained the wrinkle-removing and odor-removing processes. (Tr. at 95-101.) Those processes, Dr. Malladi opined, are present in the Whirlpool dryer. (*Id.* at 99-100.) He did not analyze or verify the information provided in the sources underlying his opinion, however, and he did not know how his sources came to their conclusions. (*Id.* at 172-74.) He also did not test the Whirlpool dryer’s wrinkle-relaxation or odor-reduction capabilities, and he did not speak with anyone at Whirlpool about wrinkle-relaxation or odor-reducing capabilities. (*Id.* at 171-72, 174.)

Significantly, Dr. Malladi conceded that he is not an expert regarding wrinkle relaxation or odor reduction. (*Id.* at 113, 171.)

Whirlpool is again attempting to use Dr. Malladi merely as a mouthpiece. The Seventh Circuit prohibits experts from providing nothing more than a bottom-line conclusion because such conclusions do not assist the jury. *See Takata Corp.*, 192 F.3d at 759; *O'Connor v. Commonwealth Edison Co.*, 13 F.3d 1090, 1107 (7th Cir. 1994). Further, Dr. Malladi's absence of experience regarding wrinkle reduction and odor removal renders him unqualified to provide an expert opinion on those topics. *See Wintz v. Northrup Corp.*, 110 F.3d 508, 514 (7th Cir. 1997). Accordingly, regardless of whether the underlying materials are otherwise admissible under Federal Rules of Evidence 803(18) or 807 – which is dubious, *see Keri v. Bd. of Trs. of Purdue Univ.*, 458 F.3d 620, 631 (7th Cir. 2006) (noting that courts are to narrowly construe the Rule 807 residual-hearsay exception and listing its five-part test); *Finchum v. Ford Motor Co.*, 57 F.3d 526, 532 (7th Cir. 1995) (discussing Rule 803(18)) – this opinion must be stricken.

VII. Encyclopedia of Chemical Technology

Dr. Malladi has also used the Encyclopedia of Chemical Technology's definition of steam to opine that steam:

can be generated by evaporation of water at subcritical pressures, by heating water above the critical pressure, and by sublimation of ice. . . . This definition includes the phrase "evaporation of water at subcritical pressures." Subcritical pressure refers to a condition where water in the liquid state can exist, such as the conditions inside the dryer drum. This reference informs us that under conditions typical of those within the dryer drum, steam can be generated by evaporation.

(R. 376, Opening Br. at 18 (quoting 7/1/09 Rep. at ¶ 18).) LG argues that this opinion should be excluded because it is misleading, constitutes a "naked conclusion with no scientific analysis," and would not be helpful to the jury. (*Id.* at 18-19.)

In rendering this opinion, Dr. Malladi applies his own testing and observation of the Whirlpool dryer to the Encyclopedia's scientific definition of steam. While Dr. Jacobi and Dr. Malladi have a disagreement regarding the Encyclopedia's proper definition, that dispute goes to the weight – not the admissibility – of Dr. Malladi's opinion. *See Winters*, 498 F.3d at 742. Accordingly, the Court denies LG's motion to strike this opinion. LG is free, of course, to cross examine Dr. Malladi regarding whether he is taking the Encyclopedia's language out of context. *See Allen*, 600 F.3d at 818; *Gayton*, 593 F.3d at 616; *Cooper v. Carl A. Nelson & Co.*, 211 F.3d 1008, 1021 (7th Cir. 2000) ("The proper method of attacking evidence that is admissible but subject to doubt is to cross-examine vigorously, to present contrary evidence, and to give careful instructions on the burden of proof. *Daubert* acknowledged the continuing vital role that 'vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof' are to play in the trier of fact's ultimate evaluation of admissible but shaky evidence." (quoting *Daubert*, 509 U.S. at 596, 113 S. Ct. 2786)).

VIII. Difference Between Steam Dryers and Conventional Dryers

Finally, LG takes issue with Dr. Malladi's opinion that

[s]team dryers differ from conventional dryers not by their ability to produce steam while drying wet clothes under conventional usage, but by their ability to generate steam when **dry** clothing is placed in the dryer. Steam dryers are intended to relax wrinkles and reduce odors when **dry**

clothing is placed in the dryer, something that is absent from conventional dryers.⁵

(R. 376, Opening Br. at 19 (quoting 3/2/09 Report at ¶ 20, with emphasis in original).) This opinion, LG argues, has no foundation and would not help the jury. (*Id.* at 19-20.) In response, Whirlpool argues that Dr. Malladi rendered this opinion based on his “extensive testing of the Whirlpool Steam Dryer, his understanding of the conditions inside conventional dryers, and his review of the scientific and consumer literature and practices associated with consumer dryers advertised as steam dryers.” (R. 390, Resp. Br. at 12.)

As part of his analysis, Dr. Malladi purchased a number of steam dryers, including the Samsung and Electrolux steam models. (Tr. at 116; Ex. 48, Exemplar Dryers that Use “Steam.”) To understand how they worked, Dr. Malladi took the Electrolux and Samsung steam dryers apart and looked at the owner’s manuals. (Tr. at 116-17.) Dr. Malladi also reviewed advertising and the repair manual for the GE steam dryer, although he did not purchase that dryer. (*Id.* at 118-19.) Dr. Malladi concluded that, in comparison to conventional dryers, steam dryers have additional controls based on complex algorithms, a spray nozzle, and the technology that determines at which stage of the cycle to add moisture. (*Id.* at 178.)

Dr. Malladi did not, however, purchase any conventional dryers, and he did not take any conventional dryers apart. (*Id.* at 178-79.) He also did not conduct wrinkle or odor testing in conventional dryers. (*Id.* at 179.) There is therefore no basis for him to compare steam dryers – which he analyzed – and conventional dryers – which he did not. As such, his opinion on this topic must be excluded because it “amount[s] to nothing more than unverified statements unsupported by scientific methodology.” *Chapman*, 297 F.3d at 688; *see also Ervin*, 492 F.3d at 904; *Fuesting*, 421 F.3d at 536.

CONCLUSION

For the foregoing reasons, the Court grants in part and denies in part LG’s Motion.

⁵ The Court has already rejected LG’s argument that this opinion was untimely. *See LG Elecs.*, 661 F. Supp. 2d at 958.