UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF WEST VIRGINIA
AT CHARLESTON

LEAH ROYCE HINES,

Plaintiff,

v. Civil Action No. 2:04-0690

WYETH, d/b/a Wyeth, Inc.;
WYETH PHARMACEUTICALS, INC.;
and PHARMACIA & UPJOHN COMPANY,

Defendants.

MEMORANDUM OPINION AND ORDER

Pending is defendants' motion to exclude the expert opinion of Drs. Wayne Tilley and Donald Austin that OMP is a safer alternative to MPA (Doc. No. 237), filed May 27, 2011.[1]

I.

This is a pharmaceutical products liability action in which plaintiff Leah Royce Hines alleges that she developed breast cancer as a result of ingesting hormone replacement

[1] At a pretrial conference on June 17, 2011, the court conferred with counsel regarding the necessity of an evidentiary hearing on the various Daubert motions currently pending before the court. (See Doc. No. 343). The parties made clear that such a hearing was not necessary. Defendants have, however, requested oral argument on the motions. Inasmuch as the parties' briefs and supporting exhibits adequately present the issues ripe for adjudication, the court finds that oral argument would not aid the decisional process and accordingly denies defendants' request for oral argument as to the present motion.

therapy ("HRT") drugs manufactured by defendants. HRT here consists of two medications, estrogen and progestin ("E+P"), that are commonly prescribed in combination to treat menopausal symptoms.

This action concerns three HRT drugs: Premarin, Prempro, and Provera. Defendant Wyeth, LLC ("Wyeth") manufactured Premarin, an estrogen drug, and Prempro, a combination estrogen and progestin drug. Defendant Pharmacia & Upjohn Company ("Upjohn") manufactured and distributed Provera, a progestin drug. The generic name for Provera is medroxyprogesterone acetate ("MPA").

Plaintiff's physician prescribed HRT drugs to treat her menopausal symptoms from approximately July 1994 to April 1999. She was diagnosed with breast cancer in July 1999, and thereafter instituted this action on July 7, 2004, invoking the court's diversity jurisdiction.[2] Her complaint asserts claims against defendants for negligence, strict liability (design defect and failure to warn), and breach of implied warranty.

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[2] The case was transferred to multidistrict litigation in the United States District Court for the Eastern District of Arkansas on October 26, 2004. Over five years later, on April 13, 2010, it was remanded to this court for the completion of discovery, pretrial activity, and trial.

Defendants seek to exclude the expert testimony of two of plaintiff's experts: Dr. Wayne Tilley and Dr. Donald Austin.

II.

The admission of expert testimony is governed by Federal Rule of Evidence 702 and the Supreme Court's decision in Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993). Under Rule 702 and Daubert, expert testimony must satisfy a two-prong test: (1) the testimony must concern "scientific, technical, or other specialized knowledge"; and (2) it must "aid the jury or other trier of fact to understand or resolve a fact at issue." Westberry v. Gislaved Gummi AB, 178 F.3d 257, 260 (4th Cir. 1999) (citing Daubert, 509 U.S. at 592); Fed. R. Evid. 702. "The first prong of this inquiry necessitates an examination of whether the reasoning or methodology underlying the expert's proffered opinion is reliable -- that is, whether it is supported by adequate validation to render it trustworthy." Westberry, 178 F.3d at 260. "The second prong of the inquiry requires an analysis of whether the opinion is relevant to the facts at issue." Id. Thus, an expert's testimony is admissible under Rule 702 if it "rests on a reliable foundation and is relevant." Kumho Tire Co. v. Carmichael, 526 U.S. 137, 141

(1999).

As to the reliability prong, the Court in Daubert announced a non-exhaustive list of factors to guide the trial judge's inquiry, including "(1) whether a theory or technique can be or has been tested; (2) whether it has been subjected to peer review and publication; (3) whether a technique has a high known or potential rate of error and whether there are standards controlling its operation; and (4) whether the theory or technique enjoys general acceptance within a relevant scientific community." Cooper v. Smith & Nephew, Inc., 259 F.3d 194, 199 (4th Cir. 2001) (citing Daubert, 509 U.S. at 592-94).

As to the relevancy prong, "the expert's proffered scientific testimony must be sufficiently tied to the facts of the case that it will be of assistance to the factfinder in resolving a disputed fact." Bourne ex rel. Bourne v. E.I. Dupont de Nemours & Co., 189 F. Supp. 2d 482, 495 (S.D. W. Va. 2002). "That is, there must be a 'valid scientific connection to the pertinent inquiry' before the testimony is admissible." Id. (quoting Daubert, 509 U.S. at 591-92).

Our court of appeals has summarized the overarching duties of a trial court in resolving Daubert motions as follows:

> **A district court considering the admissibility of expert testimony exercises a gate keeping function to assess whether the proffered evidence is sufficiently reliable and relevant . . . The inquiry to be undertaken by the district court is "a flexible one" focusing on the "principles and methodology" employed by the expert, not on the conclusions reached. Daubert, 509 U.S. at 594-95 . . . In making its initial determination of whether proffered testimony is sufficiently reliable, the court has broad latitude to consider whatever factors bearing on validity that the court finds to be useful . . . The court, however, should be conscious of two guiding, and sometimes competing, principles. On the one hand, the court should be mindful that Rule 702 was intended to liberalize the introduction of relevant expert evidence. . . . [T]he court need not determine that the expert testimony a litigant seeks to offer into evidence is irrefutable or certainly correct . . . As with all other admissible evidence, expert testimony is subject to being tested by "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof." Daubert, 509 U.S. at 596 . . . On the other hand, the court must recognize that due to the difficulty of evaluating their testimony, expert witnesses have the potential to "be both powerful and quite misleading." Id. at 595 . . . [G]iven the potential persuasiveness of expert testimony, proffered evidence that has a greater potential to mislead than to enlighten should be excluded.**

Westberry, 178 F.3d at 261 (some citations and footnotes omitted). Ultimately, "[t]he proponent of the [expert] testimony must establish its admissibility by a preponderance of proof." Cooper, 259 F.3d at 199.

III. Motion to Exclude Testimony of Drs. Tilley and Austin

A. Background

Drs. Tilley and Austin both opine that estrogen plus oral micronized progesterone ("OMP" or "natural progesterone") is a safer alternative to defendants' E+P drugs, which combine estrogen with MPA, a type of synthetic progestin. Specifically, they claim that E+OMP poses a lesser risk of breast cancer than E+MPA.

As it relates to the present motion, Dr. Tilley's expert report states as follows:

> Oral micronized progesterone (OMP) is a progestin in current clinical use that is structurally and functionally bio-identical to natural progesterone. Unlike MPA, OMP does not disrupt normal steroid hormone interactions in the breast, but effectively opposes the action of estrogen on the endometrium. As such, OMP is a safer alternative to the use of MPA in systemically-administered [combination hormone replacement therapy or "cHRT"].
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> * * * *
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> MPA use is much less common in Europe than in the USA. In Europe, oral micronised (natural) progesterone (OMP) is more commonly prescribed, as are other synthetic progestins (e.g., levonorgestrel, NETA). In France the majority of women taking cHRT receive natural progesterone in the form of OMP rather than a synthetic progestin. Large French observational studies [i.e., the Fournier and Espie studies] show that cHRT with OMP does not increase the risk of breast cancer, whereas the use of synthetic progestins do [108, 109]. Other synthetic

> progestins used in Europe have, like MPA, been associated with increased breast cancer risk in observational and randomized controlled trials comparing HRT with cHRT [110-113], but the extent of the risk increase varies among the different synthetic steroids [108, 109, 114, 115]. These studies highlight the fact that the actions of synthetic progestins can be very different from those of the native hormone progesterone. In support of the clinical impression that OMP is a more favourable progestin supplement than MPA, experiments on post-menopausal monkeys (in which menopause is induced by ovariectomy) show that estrogen in the presence of MPA, but not OMP, stimulates breast epithelial cell proliferation [116].

(Pl.'s Opp., Ex. 19, Dr. Tilley Report on Combined Hormone Replacement Therapy and Breast Cancer ("Dr. Tilley Rep.") at 1, 20).

Dr. Austin's expert report states pertinently as follows:

> Evidence from [the Fournier study] suggests that micronized progesterone and dydrogesterone combined with estrogen may carry no elevated risk of breast cancer when compared to never-use. [See Appendix B]. Additional evidence, albeit weak, that estrogen combined with micronized progesterone or dydrogesterone does not elevate the risk of breast cancer among postmenopausal women is the null association found by Lignieres et al (2002) for estrogen-plus-progestin therapy. While not specifically limited to either estrogen combined with micronized progesterone or dydrogesterone, two-thirds of their estrogen-plus-progestin users took a formulation of micronized progesterone or dydrogesterone.
>
> Available evidence implicates MPA as an independent cause of breast cancer, although the variability in observed risk estimates and a lack of statistical test for heterogeneity between relative risk estimates make a definite assertion of independent cause difficult at this

time.

> While the current evidence is limited, existing research results are that CHRT containing micronized progesterone or dydrogesterone has no elevated risk, in contrast to CHRT containing MPA. Additional investigation into breast cancer incidence among users of CHRT containing micronized progesterone or dydrogesterone is necessary but with the available evidence, a prudent clinician would not choose to prescribe CHRT containing MPA which evidences a causal association with breast cancer, instead of a CHRT containing micronized progesterone which to date has produced no such evidence.

(Pl.'s Opp., Ex. 20, Dr. Austin Causality Report ("Dr. Austin Rep.") at 25).

Defendants move to exclude both experts' testimony on the following grounds: (1) the experts relied upon observational studies that have been contradicted by a randomized, clinical study; (2) the experts' claims were not supported by the conclusions of the studies upon which they relied; and (3) the experts downplayed contrary findings. The opinion that OMP carries a smaller risk of breast cancer than MPA, defendants argue, is at best an unproven hypothesis with no solid scientific support.

B. Bases for the Opinions of Drs. Tilley and Austin

Drs. Tilley and Austin rely primarily upon four studies in forming their opinions about the relative safety of E+OMP and

E+MPA: the 2002 Lignieres study, the 2007 Espie study, the 2005 Fournier study (with updates from 2007 and 2009), and the 2006 Wood monkey study. The central issue here is whether these studies, taken together, provide a reliable foundation for the experts' opinion that E+OMP carries a lesser risk of breast cancer than E+MPA.

The 2002 Lignieres study is of limited relevance here. As defendants point out, it did not evaluate E+OMP in isolation, but instead grouped together women who used E+OMP with those who used E + other progestins. (See Pl. Opp., Ex. 12, 2002 Lignieres study, at 336 ("In combined HRT users . . . progestins were mainly [OMP] (58%) or dydrogesterone (10%). Other progestins used were promegestone, lynestrenol, chlormadinone acetate and nomegestrol acetate. Fewer than 3% used MPA.")). Noting that the Lignieres study was "not specifically limited to either estrogen combined with micronized progesterone or dydrogesterone," Dr. Austin admits that the study provides "weak" evidence that E+OMP does not elevate the risk of breast cancer. (Dr. Austin Rep. at 25).

The 2007 Espie study provides a bit more support for the experts' opinions, but not much. The investigators of that study found a higher incidence of breast cancer among users of E

+ synthetic progestins as opposed to users of E+OMP. However, Espie does not provide a head-to-head comparison of OMP and MPA; it instead compared OMP with various synthetic progestins, only one of which is MPA. This point is significant for reasons stated by Dr. Tilley in his expert report: "[o]ther synthetic progestins used in Europe have, like MPA, been associated with increased breast cancer risk in observational and randomized controlled trials comparing HRT with cHRT . . ., but the extent of the risk increase varies among the different synthetic steroids." (Dr. Tilley Rep. at 20 (emphasis added)). Given the variance of risk among different types of synthetic progestins, studies like Espie that group MPA with other synthetic progestins do not paint an accurate and focused picture of the comparative risks of E+OMP versus E+MPA.

Furthermore, the Espie investigators did not deem the higher incidence of breast cancer among users of E + synthetic progestins to be statistically significant. As they stated, "[w]hen the incidence of breast cancer was compared in patients who received different types of HRT, the incidence was 0.28%[3]

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[3] **These percentages are expressed in terms of relative risk. According to the Federal Judicial Center's Reference Manual on Scientific Evidence, relative risk is**

[a] commonly used approach for expressing the association

for [estrogen] alone, 0.40% for [estrogen] + natural progesterone, and 0.94% for [estrogen] + synthetic progestin; there was no statistically significant difference between the groups." (Pl.'s Opp., Ex. 23, 2007 Espie study, at 394 (emphasis

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> between an agent and disease. It is defined as the ratio of the incidence rate (often referred to as incidence) of disease in exposed individuals to the incidence rate in unexposed individuals. The incidence rate of disease reflects the number of cases of disease that develop during a specified period of time divided by the number of persons in the cohort under study. [footnote omitted] Thus, the incidence rate expresses the risk that a member of the population will develop the disease within a specified period of time.
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> For example, a researcher studies 100 individuals who are exposed to an agent and 200 who are not exposed. After one year, 40 of the exposed individuals are diagnosed as having a disease, and 20 of the unexposed individuals also are diagnosed as having the disease. The relative risk of contracting the disease is calculated as follows:
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> - The incidence rate of disease in the exposed individuals is 40 cases per year per 100 persons (40/100), or 0.4.
> - The incidence rate of disease in the unexposed individuals is 20 cases per year per 200 persons (20/200), or 0.1.
> - The relative risk is calculated as the incidence rate in the exposed group (0.4) divided by the incidence rate in the unexposed group (0.1), or 4.0.

Michael D. Green, et al., Reference Guide on Epidemiology, in Reference Manual on Scientific Evidence, 333, 348-49 (Fed. Jud. Ctr., 2d ed. 2000).

added)). The investigators did go on to find that this statistical disparity, while marginal, supported the conclusion that "the safest HRT in terms of breast cancer risk is the [combination] of . . . estrogen and micronized progesterone." (Id. at 396). Still, the fact remains that Espie evaluated various synthetic progestins, not just MPA. It is therefore questionable whether the data provides support for the opinions of Drs. Tilley and Austin.

Both experts rely heavily on the Fournier study. This study, also known as the "E3N cohort,"[4] investigated over 98,000 women in France who had been followed since 1990. One of its goals was to assess and compare the association between different HRT drugs and breast cancer risks. In a 2007 report from the study, the investigators "found that the risk of breast cancer was significantly lower with estrogen-progestagen HRTs containing progesterone [i.e., OMP] or dydrogesterone than with HRTs containing other progestagens." (Pl.'s Opp., Ex. 16, 2007 Fournier study, at 6).

As defendants point out, though, the 2007 Fournier

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[4] **A cohort study is a type of observational epidemiological study that measures and compares the incidence of disease in exposed and un-exposed control groups. See Green, supra note 3, at 339-41.**

report actually undermines the opinions of Drs. Tilley and Austin. Although the investigators did find that OMP is safer than synthetic progestins (as a group), the study provides a direct comparison of E+OMP and E+MPA that shows no statistically significant difference as to breast cancer risks associated with the two drugs. This comparison is reflected in the following table from the 2007 report:

Table 2 Relative risks for invasive breast cancer according to route of estrogen administration and type of progestagen, compared with HRT never-use

	Oral Estrogen		Transdermal/ Percutaneous estrogen		P-values for homogeneity tests between routes of estrogen administration
	Cases/PY[a]	Relative risk[b] (95% CI)	Cases/PY[a]	Relative risk[b] (95% CI)	
Estrogen alone	13/3,598	1.32 (0.76–2.29)	56/14,826	1.28 (0.98–1.69)	0.93
Estrogen combined with:					
Progesterone		–[c]	121/35,513	1.08 (0.89–1.31)	–
Dydrogesterone	7/3,217	0.77 (0.36–1.62)	90/25,405	1.18 (0.95–1.48)	0.27
Medrogestone	9/1,104	2.74 (1.42–5.29)	28/4,590	2.03 (1.39–2.97)	0.43
Chlormadinone acetate	8/1,431	2.02 (1.00–4.06)	35/7,774	1.48 (1.05–2.09)	0.43
Cyproterone acetate	34/4,779	2.57 (1.81–3.65)		–[c]	–
Promegestone	13/2,814	1.62 (0.94–2.82)	69/14,910	1.52 (1.19–1.96)	0.84
Nomegestrol acetate	8/2,623	1.10 (0.55–2.21)	91/18,826	1.60 (1.28–2.01)	0.30
Norethisterone acetate	46/7,401	2.11 (1.56–2.86)		–[c]	–
Medroxyprogesterone acetate	29/7,035	1.48 (1.02–2.16)		–[c]	–
P-value for homogeneity among all progestagens		0.03		0.01	
P-value for homogeneity among progestagens other than progesterone and dydrogesterone		0.16		0.59	

[a] PY = person-years. The numbers of cases and person-years do not add up to the totals (2,354 and 652,972, respectively) as data are only presented for the most frequently used HRTs

[b] Adjusted for: time since menopause (time scale), age at menarche (<13/≥13 years old), parity and age at first full-term pregnancy (nulliparous/first full-term pregnancy at age <30, 1 or 2 children/first full-term pregnancy at age <30, 3 or more children/first full-term pregnancy at age ≥30), breastfeeding (no/<12 months/≥12 months/unknown), age at menopause (continuous), type of menopause (artificial/natural or unknown), personal history of benign breast disease (yes/no), family history of breast cancer in first-degree relatives (yes/no), family history of breast cancer in other relatives (yes/no), BMI (≤20/[20–25]/[25–30]/>30 kg/m^2), physical activity (<34/[34–47]/[47–62]/≥62 MET-h/week), previous mammography (yes/no, time-dependant variable). Further stratified on year of birth ([1925–1930]/[1930–1935]/[1935–1940]/[1940–1945]/[1945–1950])

[c] Data are not presented as there are less than five cases in this HRT category

(Id. at 4).

Notably, this table presents no relative risk data for oral estrogen plus progesterone/OMP, the route of estrogen administration at issue here. In the absence of this data, defendants use the relative risk data for transdermal /percutaneous estrogen plus OMP (1.08).[5] They then compare that data to the relative risk of oral estrogen plus MPA (1.48), noting that the disparity (1.08 vs. 1.48) is not statistically significant. Indeed, when shown this same table and asked to compare the two relative risks, Dr. Austin admitted that "[s]tatistically they're not different from each other." (Defs.' Mot. to Exclude, Ex. 10, Dr. Austin Dep. at 198). Plaintiff nevertheless says that comparison across different routes of estrogen administrations is misleading, but the Fournier investigators' findings indicate otherwise. As they stated, "[f]or estrogen-alone or any given estrogen-progesten combination, the route of administration of the estrogen did not have a statistically significant effect on the association between HRT use and breast cancer." (Id. at 4-5). Thus, the comparison of oral E+MPA versus transdermal/percutaneous E+OMP

[5] Generally speaking, "[i]f the relative risk is greater than 1.0, the risk in exposed individuals is greater than the risk in unexposed individuals," meaning that "[t]here is a positive association between exposure to the agent and the disease, which could be causal." Green, supra note 3, at 349.

seems to be a valid one.[6]

Dr. Tilley (but not Dr. Austin) also relies on the 2006 Wood monkey study. This animal study provided a direct comparison of the breast cancer risks associated with E+OMP and E+MPA. After administering the drugs on 26 postmenopausal monkeys, the investigators concluded as follows:

> Compared to placebo, [estrogen] + MPA resulted in significantly greater breast proliferation in lobular and ductal epithelium, while [estrogen] + [oral micronized progesterone] did not . . . . These findings suggest that oral micronized progesterone has a more favorable effect on risk biomarkers for postmenopausal breast cancer than medroxyprogesterone acetate (MPA).

(Pl.'s Opp., Ex. 25, 2006 Wood study, at 1).

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[6] Plaintiff also highlights a 2009 update from the Fournier study, wherein the investigators noted that, "in recent users of some [E+P drugs], the timing of treatment initiation modulates the risk of breast cancer: short durations (≤ 2 years) of use were associated with significant increases in risk -- with the exception of [HRT drugs] containing progesterone -- when initiated in the 3-year period following menopause, but not when initiated later." (Pl.'s Opp., Ex. 17, 2009 Fournier study, at 4-5 (emphasis added)). As in the Espie study, though, the investigators grouped together MPA with other synthetic progestins. (See id. at 5 ("in our cohort . . . progesterone and dydrogesterone [were] the most frequently associated progestagens; other progestagens were mostly nomegestrol acetate and promegestone . . . followed by chlormadinone acetate, norethisterone acetate, medroxyprogesterone acetate [MPA], medrogestone, and cyproterone acetate.")). Thus, the 2009 report does not provide a helpful comparison of E+OMP vs. E+MPA.

C. Reliability of the Opinions of Drs. Tilley and Austin

Viewed in the aggregate, the court does not find that the foregoing studies provide a reliable basis for the opinion that E+OMP is a safer alternative to E+MPA. To be sure, the data gleaned from the studies does support the conclusion that E+OMP carries a decreased risk of breast cancer compared to E plus synthetic progestins as a group. But only one of the studies (Fournier) directly compares the effects of E+OMP and E+MPA on humans,[7] and that study found no statistically significant disparity as to the relative breast cancer risks posed by the two drugs. Where, as here, an expert places undue emphasis on statistically insignificant data, the expert's methods may be deemed unreliable. See Wells v. SmithKline Beecham Corp., 601 F.3d 375, 380 & n. 23 (5th Cir. 2010); In re Prempro Prods. Liab. Litig., 738 F. Supp. 2d 887, 892 (E.D. Ark. 2010); Pritchard v. Dow Agro Sciences, 705 F. Supp. 2d 471, 489-90 (W.D. Pa. 2010). Furthermore, the Supreme Court has made clear that "nothing in

[7] In lieu of studies directly comparing E+OMP and E+MPA, plaintiff suggests cobbling together the results of several different studies -- namely, those finding no statistically significant risk of breast cancer associated with E+OMP, and others finding that E+MPA increases breast cancer risks. (See Pl.'s Opp. at 8). However, it does not appear that comparing the results of separate studies with different variables and experimental conditions would be a scientifically sound methodology for evaluating the relative risks of two drugs. Nor does plaintiff, the burden-carrying party, explain why such a methodology should be deemed reliable.

either Daubert or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the ipse dixit of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered." General Elec. Co. v. Joiner, 522 U.S. 136, 146 (1997). Insofar as Drs. Austin and Tilley rely upon studies that do not directly compare E+OMP with E+MPA (but instead group together MPA with other synthetic progestins) in opining that E+OMP poses less breast cancer risks than E+MPA, there is "too great an analytical gap" between the experts' opinions and the data presented.

Regarding the Wood monkey study, this court has previously observed that "[t]here can be no dispute that properly designed and conducted animal testing can yield relevant and useful information in the field of human toxicology." Bourne ex rel. Bourne v. E.I. Dupont de Nemours & Co., 189 F. Supp. 2d 482, 496 (S.D. W. Va. 2002). As the decision in Bourne shows, however, in some cases even seemingly relevant animal studies cannot be reliably extrapolated to humans. See id. at 496-99 (excluding expert testimony that a fungicide was teratogenic to humans based solely upon the findings of in vivo rat studies and in vitro tests; reasoning that the only existing epidemiological evidence contradicted the experts' opinions, and that the dosages

and exposure of fungicide involved in the animal studies did not "fit" the facts of the plaintiff's case). Accordingly, as the district court overseeing the HRT multidistrict litigation has observed, experts relying on animal studies "must be prepared to explain how such studies can be reliably extrapolated to prove comparable effects in humans." In re Prempro, 738 F. Supp. 2d at 894 (citing Joiner, 522 U.S. at 144; Allison v. McGhan Medical Corp., 184 F.3d 1300, 1313-14 (11th Cir. 1999); In re Paoli R.R. Yard PCB Litig., 35 F.3d 717, 743 (3d Cir. 1994)). Dr. Tilley only summarizes the findings of the Wood monkey study; he gives no explanation of why the study can be reliably extrapolated to humans. (See Dr. Tilley Rep. at 20). His mere invocation of the study, without further analysis, does little to sustain his testimony against a Daubert attack.

In addition, the tentativeness of the research relied upon by Drs. Tilley and Austin makes the court reluctant to put their opinions in front of the jury. For instance, the Fournier investigators stated in their 2007 report that "the effects of progestagens generally differ according to experimental conditions, the duration of treatment and the dose concentration . . . . As a result it is impossible to establish, on the basis of the available and often conflicting in vitro data, whether the predominant effect of a given progestagen [here, MPA] is to

stimulate or inhibit breast cancer cell proliferation." (Pl.'s Opp., Ex. 16, 2007 Fournier study, at 6). While the investigators characterized their finding that E+OMP may be safer than other HRT combinations as "major," they cautioned that "more evidence is required before these results can be translated into firm clinical recommendations for the management of menopausal symptoms," and urged "further studies and reflection on the link between estrogen-progesterone and estrogen-dydrogesterone HRTs and breast cancer." (Id. at 6, 8). Dr. Austin's report reaffirms the preliminary nature of the Fournier study's findings. (See Dr. Austin Rep. at 25 (noting that "the current evidence is limited" and "additional investigation into breast cancer incidence among users of CHRT containing micronized progesterone or dydrogesterone is necessary")). Similarly, the investigators from the Wood monkey study made clear that their findings were "preliminary," and that "more data . . . [and] [f]urther studies are needed." (Pl.'s Opp., Ex. 25, 2006 Wood study, at 9). In view of these cautionary statements, plaintiff is hard pressed to argue that it is "generally accepted" within the relevant scientific community that E+OMP is safer than E+MPA. See Daubert, 509 U.S. at 592-94.

The court's decision to exclude is bolstered by the findings of the 1995 Postmenopausal Estrogen/Progestin Interventions ("PEPI") clinical trial. PEPI was designed not to evaluate breast cancer risks, but to assess the effects of HRT drugs "on selected heart disease risk factors in healthy postmenopausal women." (Def.'s Mot. to Exclude, Ex. 12, 1995 PEPI trial, at 199). Nevertheless, one of the reports from the PEPI trial includes a table, titled "Adverse Experiences During Follow-up in PEPI Participants by Treatment Assignment," relaying that 2 out of 16 women who used E+MPA developed breast cancer, whereas 4 out of 16 women in the E+OMP group developed breast cancer. (Id. at 206). Although the difference between 2 and 4 incidences of breast cancer out of a group of 32 is hardly statistically significant, this data reinforces the court's view that evidence concerning the relative safety of E+OMP versus E+MPA is neither consistent across the medical literature nor generally accepted in the field of epidemiology.

In the final analysis, the court must take heed of the Fourth Circuit's admonition that, "given the potential persuasiveness of expert testimony, proffered evidence that has a greater potential to mislead than to enlighten should be excluded." Westberry, 178 F.3d at 261. The testimony of Drs. Tilley and Austin, while finding some limited support in the

scientific literature, has a great potential to mislead the jury into believing that E+OMP poses a significantly lesser risk of breast cancer in humans than E+MPA. The data relied upon by Drs. Tilley and Austin does not support this conclusion. Accordingly, the experts' testimony is excluded.

IV. Conclusion

For the foregoing reasons, it is ORDERED that defendants' motion to exclude the expert opinion of Drs. Wayne Tilley and Donald Austin that OMP is a safer alternative to MPA be, and it hereby is, granted.[8]

The Clerk is directed to forward copies of this written opinion and order to all counsel of record.

DATED: July 8, 2011

John T. Copenhaver, Jr.
United States District Judge

[8] The court notes that the testimony of Drs. Tilley and Austin is not otherwise excluded as a consequence of this ruling. Both experts are designated to testify as to general causation, and defendants have not challenged the admissibility of that testimony on Daubert grounds.