IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF OHIO
WESTERN DIVISION

ALVIN MATHEWS, Plaintiff, v. NOVARTIS PHARMACEUTICALS CORPORATION, Defendant.	:	Case No. 3:12-cv-314 JUDGE WALTER H. RICE

DECISION AND ENTRY OVERRULING DEFENDANT NOVARTIS PHARMACEUTICALS CORPORATION'S MOTION TO EXCLUDE CAUSATION TESTIMONY OF PLAINTIFF'S EXPERTS (DOC. #8-22); SUSTAINING IN PART AND OVERRULING IN PART DEFENDANT NOVARTIS PHARMACEUTICALS CORPORATION'S MOTION FOR SUMMARY JUDGMENT (DOC. #8-19); SUSTAINING IN PART AND OVERRULING IN PART DEFENDANT NOVARTIS PHARMACEUTICALS CORPORATION'S *DAUBERT* MOTION TO EXCLUDE TESTIMONY OF PLAINTIFF'S EXPERTS DR. SUZANNE PARISIAN, DR. ROBERT MARX, DR. ROBERT FLETCHER, PROFESSOR WAYNE RAY, DR. KEITH SKUBITZ, AND DR. JAMES VOGEL (DOC. #8-18)

Plaintiff Alvin Mathews filed suit against Novartis Pharmaceuticals Corporation ("NPC"), alleging that he developed osteonecrosis of the jaw ("ONJ") after being infused with Aredia® and Zometa®, nitrogenous bisphosphonate drugs manufactured and marketed by NPC. His Amended Complaint asserts three claims under the Ohio Products Liability Act ("OPLA"), Ohio Revised Code §2307.71, *et seq.*, for design defect, inadequate warning, and nonconformance with manufacturer's representation. Doc. # 26.

This matter is currently before the Court on: Defendant NPC's *Daubert* Motion to Exclude Causation Testimony of Plaintiff's Experts, Doc. #8-22; Defendant NPC's Motion for Summary Judgment, Doc. #8-19; and Defendant NPC's *Daubert* Motion to Exclude Testimony of Plaintiff's Experts Dr. Suzanne Parisian, Dr. Robert Marx, Dr. Robert Fletcher, Professor Wayne Ray, Dr. Keith Skubitz, and Dr. James Vogel, Doc. #8-18.

I. Background and Procedural History

In July of 1998, Plaintiff Alvin Mathews was diagnosed with multiple myeloma with lytic lesions, osteopenia, and significant bone pain. Beginning in January of 1999, his oncologist, Dr. Gregory Gordon, prescribed monthly infusions of Aredia®. Gordon Dep. at 19, 27-28; Ex. 34 to Doc. #8-21. Aredia® and its successor drug, Zometa®, are both manufactured and marketed by NPC. They are approved by the Food and Drug Administration ("FDA"), and have proven very effective in preventing bone pain, fracture and other skeletal complications in patients with cancer that has metastasized to the bone. Exs. 1-3 to Doc. #8-21.

Mathews received Aredia® from January of 1999 through April of 2002, and received Zometa® from May of 2002 through February of 2003. Even though, at that point, Mathews's cancer was in remission, Dr. Gordon resumed monthly infusions of Aredia® as a preventative measure. Mathews continued to receive Aredia® from March of 2003 through mid-2006. Gordon Dep. at 34, 55. Mathews alleges that as a result of taking these drugs, he developed osteonecrosis

of the jaw ("ONJ"), a painful, debilitating and disfiguring condition involving the death of part of the jawbone.

Between December of 2000 and May of 2002, Mathews had several episodes of exposed bone in his jaw. Exs. 43, 45, 46 to Doc. #8-21. In March of 2001, one of his teeth became infected, and he had it extracted. Ex. 44 to Doc. #8-21. Between August of 2004 and March of 2006, he had several cavities filled. He also had root canals on three teeth in his lower right jaw, but the root canals failed. He eventually had those three teeth extracted -- one in January of 2005, one in November of 2005, and one in March of 2006. Exs. 49-55 to Doc. #8-21. In May of 2006, after Mathews complained of pain and swelling in his lower right jaw, his dentist, Dr. Jeffrey Kleinman, referred him to Dr. James Zullinger, an oral surgeon who, in turn, referred him to Dr. Timothy Sorg, an infectious disease specialist. Dr. Sorg diagnosed Mathews with Ludwig's angina, a bacterial infection, and treated him with IV antibiotics. Exs. 56-59 to Doc. #8-21.

In August of 2006, having ruling out dental infection, recurrent Ludwig's angina, and multiple myeloma of the jaw, Dr. Sorg determined that Mathews was suffering from bisphosphonate-induced ONJ. Exs. 58-59 to Doc. #8-21. As a result, Dr. Gordon stopped the Aredia® treatments. Gordon Dep. at 40. Mathews's pain continued and, on August 21, 2006, pus began draining from his jaw. Dr. Zullinger diagnosed him with an extraoral fistula as a result of the ONJ. Exs. 61-62 to Doc. #8-21. In September of 2006, Mathews again developed an area of exposed bone and was hospitalized for severe jaw pain. He continues to

suffer pain, swelling and drainage, and several times each year, Dr. Zullinger must lance the extraoral fistula. Mathews Dep. at 18.

In December of 2006, Mathews, a resident of Trotwood, Ohio, filed suit against NPC in the United States District Court for the Southern District of New York. His Complaint included common law claims of strict product liability – design defect, strict product liability – failure to warn, negligence, breach of express warranty, and breach of implied warranty. His case was one of hundreds of similar cases filed across the country, all alleging that NPC knew or should have known of the risk that Aredia® and Zometa® cause ONJ, and failed to provide timely and adequate notice of that risk to the public and to health care professionals. The Judicial Panel on Multidistrict Litigation consolidated these cases for pretrial purposes in the United States District Court for the Middle District of Tennessee, and they were then divided into several litigation "waves." *In re Aredia® and Zometa® Products Liability Litigation*, No. 3:06-md-1760 (M.D. Tenn.).

In January of 2012, Mathews's case was remanded to the United States District Court for the Southern District of New York, and in September of 2012, it was transferred to the United States District Court for the Southern District of Ohio. At that time, there were several pending motions, including NPC's motion for summary judgment, Doc. #8-19, and two *Daubert* motions. Docs. ##8-18 and 8-22.

In reviewing the pending motions, the Court noted that the parties agreed that Ohio law governed the claims, which are subject to the Ohio Products Liability

Act ("OPLA"), Ohio Revised Code §§ 2307.71-2307.80. Because the OPLA abrogates all common law product liability claims, Ohio Revised Code § 2307.71 (B), the Court ordered Mathews to file an Amended Complaint, reasserting his claims under the OPLA. Doc. #23.

The Amended Complaint asserts three claims: (1) strict liability – design defect under Ohio Revised Code § 2307.75; (2) negligence – inadequate warning under Ohio Revised Code § 2307.76(A); and (3) nonconformance with manufacturer's representation under Ohio Revised Code § 2307.77. Before addressing the merits of these claims, the Court turns first to NPC's *Daubert* Motion to Exclude Causation Testimony of Plaintiff's Expert Witness, Dr. Eric Sung. Doc. #8-22.

II. Motion to Exclude Dr. Sung's Expert Witness Testimony (Doc. #8-22)

Citing Federal Rule of Evidence 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), Defendant NPC has moved to exclude the testimony of Dr. Eric Sung, Mathews's expert witness on the issue of specific causation, *i.e.*, whether Mathews's use of Aredia® and Zometa® caused him to develop ONJ. Doc. #8-22. After reviewing Mathews's medical and dental records, Dr. Sung concluded, to a reasonable degree of medical certainty, that Mathews developed ONJ due to his treatment with Aredia®. Expert Report at ¶18; Ex. 36 to Doc. #8-23. Dr. Sung testified that Mathews developed ONJ "probably

around November of 2004, perhaps even earlier." 10/12/11 Sung Dep. at 236; Ex. 2 to Doc. #8-29.

Federal Rule of Evidence 702 governs the admissibility of expert witness testimony. It states:

> A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:
>
> (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
> (b) the testimony is based on sufficient facts or data;
> (c) the testimony is the product of reliable principles and methods; and
> (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702.

In *Daubert*, the Supreme Court assigned the trial judge a "gatekeeping" function. The trial judge must ensure that the expert witness's testimony "both rests on a reliable foundation and is relevant to the task at hand." 509 U.S. at 589. The court need not hold a hearing, but "is required to make an initial assessment of the relevance and reliability of the expert testimony." *Greenwell v. Boatwright*, 184 F.3d 492, 498 (6th Cir. 1999). In the Court's view, there is no need for a hearing in this case because there is enough evidence in the record to allow the Court to determine whether Dr. Sung's proposed expert witness testimony satisfies the *Daubert* standard.

NPC first argues that Dr. Sung is not qualified to offer an opinion on the subject of specific causation. Sung is a Professor of Clinical Dentistry at UCLA and also maintains a private practice. He has read the relevant medical literature on bisphosphonate-induced ONJ. Since 2001, he has treated approximately twenty patients with bisphosphonate-induced ONJ, and has been indirectly involved in the care of more than twenty other such patients. Sung Report at ¶¶1, 7, 12. In addition, he has co-authored two studies involving bisphosphonate-induced ONJ in rats, and authored an abstract concerning clinical management of ONJ. He has also lectured on this topic. 4/20/11 Sung Dep. at 52, 99-100; Ex. 37 to Doc. #8-23.

NPC acknowledges that Dr. Sung is qualified to *treat and diagnose* patients who have ONJ, but argues that his education and experience do not render him qualified to determine what *caused* ONJ in Mathews's case. As the Sixth Circuit noted in *Tamraz v. Lincoln Electric Co.*, 620 F.3d 665 (6th Cir. 2010), "[t]he ability to diagnose medical conditions is not remotely the same . . . as the ability to deduce . . . in a scientifically reliable manner, the causes of those medical conditions." *Id.* at 673-74 (quoting *Gass v. Marriott Hotel Servs., Inc.,* 501 F. Supp.2d 1011, 1019 (W.D. Mich. 2007), *rev'd on other grounds,* 558 F.3d 419 (6th Cir. 2009)).

NPC also cites to *Thomas v. Novartis Pharmaceuticals Corp.*, 443 F. App'x 58, 61-62 (6th Cir. 2011), in which the Sixth Circuit found that the district court had not abused its discretion in excluding specific causation testimony of the

plaintiff's treating oral surgeon. The court held that it was not enough for the plaintiff to show that the oral surgeon could "recognize and treat osteonecrosis of the jaw." The plaintiff must also show how the doctor applied his experience and expertise to reach the causation opinion.

Dr. Sung admits that he is not an expert on bisphosphonates. 4/20/11 Sung Dep. at 97-98. However, as the court noted in *Thomas*, "the *Daubert* gate does not automatically slam shut when an individual disclaims being an expert." *Id.* at 61. Therefore, Dr. Sung's statement that he is not an expert on bisphosphonates is not dispositive. The court must independently determine whether Dr. Sung is qualified by virtue of his education and experience. *Id.*

NPC notes that Sung has no demonstrated experience in determining the cause of ONJ, and has never conducted any research on the alleged link between bisphosphonates and ONJ in humans. Nevertheless, Mathews maintains that Sung is clearly qualified to testify on the topic of specific causation. Sung testified that although he does not hold himself out as an expert, he knows "more than the average dentist" about Aredia® and Zometa®. 4/20/11 Sung Dep. at 97. He has treated many patients with bisphosphonate-induced ONJ and lectured on the topic. As Mathews notes, Sung's experience with other oral conditions allows him to successfully rule out other causes of ONJ. Moreover, although he has not conducted human research on the link between the use of bisphosphonate drugs and ONJ, he has co-authored two studies involving bisphosphonate-induced ONJ in rats.

For these reasons, the Court finds that this case is factually distinguishable from *Thomas*. Based on the evidence in the record, the Court concludes that Dr. Sung's education and experience render him qualified to offer an opinion concerning whether the use of Aredia® and Zometa® caused Mathews to develop ONJ.

NPC also argues that Dr. Sung failed to utilize a reliable methodology to form his specific causation opinion. Typically, specific causation is determined through the use of a differential etiology, whereby all possible causes are considered and then ruled out one by one until the "most likely cause" is identified. Relevant questions include:

> (1) Did the expert make an accurate diagnosis of the nature of the disease? (2) Did the expert reliably rule in the possible causes of it? (3) Did the expert reliably rule out the rejected causes? If the court answers "no" to any of these questions, the court must exclude the ultimate conclusion reached.

Tamraz, 620 F.3d at 673-74.

NPC maintains that Dr. Sung failed to reliably rule out several potential alternative causes of Mathews's condition. Sung states that he specifically ruled out "cancer, radiation therapy, chemotherapy, corticosteroid therapy, immunotherapy, periodontal disease, dental extractions, intra-oral trauma, diabetes, hypertension, anemia, smoking, alcohol abuse and obesity" as causes of Mathews's ONJ. Sung Report at ¶17. He testified that multiple myeloma would have also been included in his differential etiology. 10/11/11 and 10/12/11 Sung Dep. at 255; Ex. 38 to Doc. #8-23.

NPC argues, however, that Sung has provided no explanation of *how* he ruled out some of these other possible causes. For example, he admitted at his deposition that he knew of no biopsy that was done to rule out cancer of the jaw. *Id.* at 240. Sung also testified that he ruled out osteomyelitis (an infection of the bone) as a cause of the ONJ, but conceded that Mathews had an obvious infection in his jaw before he developed exposed bone, and that there was no way to determine which came first, the osteomyelitis or the ONJ. *Id.* at 283.

Dr. Sung testified that, although he considered many other causes, "I have to say that list dwindled down to bisphosphonates in a hurry when I looked at it in relationship to when things occurred." *Id.* at 294-95. NPC maintains that Sung's opinion is nothing more than *ipse dixit*; in other words, he simply decided that because Mathews was exposed to bisphosphonates and then developed ONJ, the requisite causation is established. NPC argues that Sung failed to reliably rule out other possible causes, rendering his opinion inadmissible.

The Court disagrees. As the Sixth Circuit held in *Jahn v. Equine Services, PSC*, 233 F.3d 382 (6th Cir. 2000), "[m]edical opinions need not be unchallengeable in order to be admissible." *Id.* at 393. With respect to causation, "an expert's testimony need not eliminate all other possible causes of the injury." Failure to eliminate other causes may go "to the accuracy of the conclusion," but it does not affect the "soundness of the methodology." *Id.* at 390 (quoting *Ambrosini v. Labarraque*, 101 F.3d 129, 140 (D.C. Cir. 1996)).

Here, Dr. Sung reviewed Mathews's medical and dental records to determine which possible causes to rule in, and then used reliable methods to rule out those alternative causes out one by one. 10/11/11 Sung Dep. at 96-97, 253, 290. Sung explained that the incidence rate of ONJ is quite high among patients treated with bisphosphonate drugs. *Id.* at 54-55. He testified that the low dose of corticosteroids that Mathews received was unlikely to cause ONJ, and the incidence of ONJ associated with chemotherapy is very rare. *Id.* at 258, 295. Other causes, like tobacco or alcohol abuse, were easily ruled out because they were simply inapplicable. Sung Report ¶18; Mathews Dep. at 71.

In the Court's view, Dr. Sung's specific causation opinion is based on a reliable methodology. Accordingly, the Court overrules NPC's motion to exclude specific causation testimony by Mathews's expert witness, Dr. Eric Sung. Doc. #8-22. NPC's objections to the specific methods that Dr. Sung used to rule out alternative causes go only to the weight to be given his testimony, and may be explored further on cross-examination.

III. Motion for Summary Judgment (Doc. #8-19)

When the above-captioned case was transferred to this Court, NPC's Motion for Summary Judgment on all of Mathews's common law claims was already pending. Doc. #8-19. At the Court's request, Mathews filed an Amended Complaint, Doc. #26, which asserts three claims under the Ohio Products Liability Act ("OPLA"), Ohio Revised Code §2307.71, *et seq.* More specifically, Mathews

alleges design defect, inadequate warning, and nonconformance with manufacturer's representation. Although the Court gave NPC the opportunity to modify the pending Motion for Summary Judgment in response to the Amended Complaint, NPC informed the Court that no modifications were needed. Doc. #27.

A. Summary Judgment Standard

Summary judgment must be entered "against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial." *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986). The moving party always bears the initial responsibility of informing the court of the basis for its motion, and identifying those portions of the record which it believes demonstrate the absence of a genuine issue of material fact. *Id.* at 323; *see also Boretti v. Wiscomb*, 930 F.2d 1150, 1156 (6th Cir. 1991).

"Once the moving party has met its initial burden, the nonmoving party must present evidence that creates a genuine issue of material fact making it necessary to resolve the difference at trial." *Talley v. Bravo Pitino Rest., Ltd.*, 61 F.3d 1241, 1245 (6th Cir. 1995); *see also Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250 (1986). Once the burden of production has so shifted, the party opposing summary judgment cannot rest on its pleadings or merely reassert its previous allegations. It is not sufficient to "simply show that there is some metaphysical doubt as to the material facts." *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986). Rule 56 "requires the nonmoving party to go beyond

the [unverified] pleadings" and present some type of evidentiary material in support of its position. *Celotex*, 477 U.S. at 324. "The plaintiff must present more than a scintilla of evidence in support of his position; the evidence must be such that a jury could reasonably find for the plaintiff." *Michigan Prot. & Advocacy Serv., Inc. v. Babin*, 18 F.3d 337, 341 (6th Cir. 1994).

Summary judgment shall be granted "if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). "Summary judgment will not lie if the dispute about a material fact is 'genuine,' that is, if the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Anderson*, 477 U.S. at 248. In determining whether a genuine dispute of material fact exists, a court must assume as true the evidence of the nonmoving party and draw all reasonable inferences in favor of that party. *Id.* at 255. If the parties present conflicting evidence, a court may not decide which evidence to believe. Credibility determinations must be left to the fact-finder. 10A Wright, Miller & Kane, *Federal Practice and Procedure* Civil 3d § 2726 (1998).

In determining whether a genuine dispute of material fact exists, a court need only consider the materials cited by the parties. Fed. R. Civ. P. 56(c)(3). "A district court is not . . . obligated to wade through and search the entire record for some specific facts that might support the nonmoving party's claim." *InterRoyal Corp. v. Sponseller*, 889 F.2d 108, 111 (6th Cir. 1989), *cert. denied*, 494 U.S.

1091 (1990). If it so chooses, however, the court may also consider other materials in the record. Fed. R. Civ. P. 56(c)(3).

B. Analysis

1. Medical Causation

NPC first argues that all of Mathews's claims fail because he has no admissible expert witness testimony establishing that his use of Aredia® and Zometa® caused him to develop ONJ. This argument, however, is foreclosed by the Court's ruling overruling NPC's motion to exclude the specific causation testimony of Dr. Eric Sung.

2. Strict Liability – Design Defect, Ohio Revised Code § 2307.75

Count I of the Amended Complaint asserts a design defect claim under Ohio Revised Code § 2307.75. The OPLA provides that "a product is defective in design or formulation if, at the time it left the control of its manufacturer, the foreseeable risks associated with its design or formulation . . . exceeded the benefits associated with that design or formulation . . ." Ohio Revised Code § 2307.75(A). However, a prescription drug "is not defective in design or formulation because some aspect of it is unavoidably unsafe, if the manufacturer . . . provides adequate warning . . ." Ohio Revised Code § 2307.75(D).

In Count I of the Amended Complaint, Mathews alleges that Aredia® is defective because its foreseeable risks exceeded the benefits associated with the design or formulation. Mathews further alleges that NPC's warnings about the risk

of ONJ are inadequate, and that Aredia® is defective "due to inadequate testing." Am. Compl. ¶¶20-22.

NPC argues that summary judgment is warranted because Mathews cannot show that, at the time the drug left the manufacturer, the foreseeable risks associated with the design exceeded the benefits of that design. Mathews's own oncologist testified that, even after knowing of the risk of ONJ, he continued to prescribe Aredia® to Mathews because the benefits still outweighed the risks. Gordon Dep. at 37-38. NPC further notes that Aredia® was approved by the FDA, the agency charged with weighing a drug's risks and benefits.

Mathews makes no attempt to rebut these arguments, arguing instead only that this claim survives because of the "issue of dose and duration." Doc. #8-26 at 16. Unfortunately, Mathews does absolutely nothing to explain this statement or to develop this argument. As NPC correctly points out, Mathews identifies no evidence supporting a finding that the drugs were defective based on dose or duration, or that the alleged design defect proximately caused his injury. In fact, the "issue of dose and duration" appears nowhere in the Amended Complaint, and is mentioned nowhere else in Mathews's Memorandum in Opposition to Defendant's Motion for Summary Judgment.

Based on the evidence presented, no reasonable jury could find in favor of Mathews on his design defect claim.[1] The Court therefore sustains NPC's motion for summary judgment on Count I of the Amended Complaint.

3. Inadequate Warning, Ohio Revised Code § 2307.76(A)

Count II of the Amended Complaint asserts a claim of inadequate warning under Ohio Revised Code § 2307.76(A). Mathews alleges that NPC knew or should have known that Aredia® creates an unreasonable risk of ONJ, that NPC breached its duty to exercise reasonable care by failing to warn his prescribing physicians and the dental community about that risk, and that this was the proximate cause of his injury. Am. Compl. ¶¶30-33.

The OPLA provides that a product is defective due to inadequate warning if, when it left the manufacturer's control, both of the following applied:

> (a) The manufacturer knew or, in the exercise of reasonable care, should have known about a risk that is associated with the product and that allegedly caused harm for which the claimant seeks to recover compensatory damages; [and]
>
> (b) The manufacturer failed to provide the warning or instruction that a manufacturer exercising reasonable care would have provided concerning that risk, in light of the likelihood that the product would cause harm of the type for which the claimant seeks to recover

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[1] Citing Ohio Revised Code § 2307.75(D), NPC further argues that summary judgment is warranted because the warnings it gave were adequate. Because Mathews has failed to present sufficient evidence from which a reasonable jury could find that the foreseeable risks of the drugs exceeded the benefits, the Court need not address the adequacy of the warnings in the context of the design defect claim.

> compensatory damages and in light of the likely seriousness of that harm.

Ohio Rev. Code § 2307.76(A)(1).

A product is defective due to inadequate *post-marketing* warning if, at a relevant time after it left the manufacturer's control, both of the following applied:

> (a) The manufacturer knew or, in the exercise of reasonable care, should have known about a risk that is associated with the product and that allegedly caused harm for which the claimant seeks to recover compensatory damages; [and]
>
> (b) The manufacturer failed to provide the post-marketing warning or instruction that a manufacturer exercising reasonable care would have provided concerning that risk, in light of the likelihood that the product would cause harm of the type for which the claimant seeks to recover compensatory damages and in light of the likely seriousness of that harm.

Ohio Rev. Code § 2307.76(A)(2).

To succeed on an "inadequate warning" claim, a plaintiff must prove: "(1) a duty to warn against reasonably foreseeable risks; (2) breach of this duty; and (3) an injury that is proximately caused by the breach." *Miller v. ALZA Corp.*, 759 F. Supp.2d 929, 934 (S.D. Ohio 2010) (quoting *Graham v. Am. Cyanamid Co.*, 350 F.3d 496, 514 (6th Cir. 2003)).

The first element is not in dispute. NPC argues that it is entitled to summary judgment on this claim because Mathews cannot show that NPC breached a duty to warn against reasonably foreseeable risks, or that his injury was proximately caused by the breach. Based on the evidence presented, the Court finds that genuine issues of material fact preclude summary judgment on this claim.

(a) Duty

NPC correctly notes that there is no duty to warn of a risk that is unknown and unknowable. *Bartel v. John Crane, Inc.*, 316 F. Supp.2d 603, 611-12 (N.D. Ohio 2004). NPC maintains that it issued appropriate warnings as soon as it became aware of the risk of bisphosphonate-induced ONJ. NPC notes that it was not until September of 2003 that Dr. Richard Marx published the first case reports linking bisphosphonate drugs to ONJ. R.E. Marx, *Pamidronate (Aredia) and Zoledronate (Zometa) Induced Avascular Necrosis of the Jaws: A Growing Epidemic*, 61 J. Oral Maxillofacial Surg. 1115 (2003). That same month, NPC voluntarily changed its labels to note that cases of ONJ had been reported since the drugs were introduced on the market. The label revision stated, however, that ONJ "has other well documented risk factors. It is not possible to determine if these events are related to Zometa or other bisphosphonates, to concomitant drugs or other therapies." Ex. 24 to Doc. #8-21.

NPC revised its labels again in February of 2004 to note that, because most cases of bisphosphonate-induced ONJ appeared to be related to a dental procedure, dental surgery was not advisable. Ex. 27 to Doc. #8-21. In September of 2004, NPC again revised the labels to state that patients being treated with bisphosphonates "should avoid invasive dental procedures if possible." Ex. 28 to Doc. #8-21. That same month, NPC sent letters to doctors warning of the risk of bisphosphonate-induced ONJ. Ex. 32 to Doc. #8-21. In May of 2005, NPC sent similar letters to dentists and oral surgeons. Ex. 18 to Doc. #8-21.

Mathews maintains that these warnings were neither timely nor adequate. He notes that a 1981 study involving rats had shown a connection between bisphosphonates and ONJ. Ex. 23 to Vecchione Decl. filed in *In re: Aredia and Zometa Prods. Liab. Litig.*, 3:06-md-1760 (M.D. Tenn.) [Doc. #5466]. Moreover, at least six cases of ONJ were allegedly reported during the 1991 clinical trials of Aredia®. Exs. 20, 26-27 to Vecchione Decl. Mathews therefore maintains that NPC should have identified the risk no later than 1991. Nevertheless, NPC issued no warnings at all until September of 2003. Mathews maintains that the warnings given thereafter were inadequate.

Notably, in "Wave I" of the multi-district litigation, the MDL Court determined that genuine issues of material fact preclude summary judgment on the issue of warning adequacy. It found that there are genuine factual disputes concerning *what* NPC knew or should have known and *when*, and whether the letters sent to doctors and dentists were timely and adequately conveyed information about the risk of developing ONJ. *In re Aredia and Zometa Prods. Liability Litigation*, No. 3:06-md-1760, Docs. #2766, 2767 (M.D. Tenn. Aug. 13, 2009). Finding no basis for disturbing the ruling of the MDL Court on this issue, the Court concludes that genuine issues of material fact preclude summary judgment on the question of whether NPC breached its duty to provide adequate warnings concerning the risk of bisphosphonate-induced ONJ. [2]

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[2] Under the "law of the case" doctrine, this court cannot reconsider issues decided at an earlier stage of the proceedings. *McKenzie v. BellSouth*

There is, however, one Ohio-specific duty-related issue raised by the parties that was not addressed by the MDL court. The "learned intermediary" defense, as set forth in the OPLA, provides that:

> An ethical drug is not defective due to inadequate warning or instruction if its manufacturer provides otherwise adequate warning and instruction *to the physician or other legally authorized person who prescribes or dispenses that ethical drug* for a claimant in question and if the federal food and drug administration has not provided that warning or instruction relative to that ethical drug is to be given directly to the ultimate user of it.

Ohio Rev. Code § 2307.76(C) (emphasis added). Since this statute refers only to physicians or other legally authorized persons who prescribe or dispense the drug in question, there is some question about whether NPC also has a duty to warn dentists and oral surgeons of the risks of bisphosphonate-induced ONJ.[3]

Mathews notes that Restatement (Third) of Torts provides:

> A prescription drug or medical device is not reasonably safe due to inadequate instructions or warnings if reasonable instructions or warnings regarding foreseeable risks of harm are not provided to: (1) prescribing *and other health-care providers who are in a position to reduce the risks of harm in accordance with the instructions or warnings*. . .

Telecommunications, Inc., 219 F.3d 508, 512 (6th Cir. 2000). Exceptions exist "(1) where substantially different evidence is raised on subsequent trial; (2) where a subsequent contrary view of the law is decided by the controlling authority; or (3) where a decision is clearly erroneous and would work a manifest injustice." *Hanover Ins. Co. v. Am. Eng'g Co.*, 105 F.3d 306, 312 (6th Cir. 1997). None of those exceptions is present herein.

[3] Although NPC did eventually send warning letters to dentists and oral surgeons, it did not do so until May of 2005.

Restatement (Third) of Torts: Prod. Liab. § 6(d)(1) (1998) (emphasis added). Mathews maintains that because bisphosphonate-induced ONJ is often triggered by invasive dental procedures, and because dentists and oral surgeons are in the best position to reduce the risk of harm, drug manufacturers have a duty to warn them of the relevant risks.

Ohio has not expressly adopted this section of the Restatement (Third) of Torts. Even so, Ohio Revised Code § 2307.76(A) refers to the failure to provide "the warning or instruction that a manufacturer exercising reasonable care would have provided concerning that risk, in light of the likelihood that the product would cause harm of the type for which the claimant seeks to recover compensatory damages and in light of the likely seriousness of that harm."

In the Court's view, the question of whether the manufacturer exercised "reasonable care" encompasses both the *content* of that warning and the *method* by which the manufacturer disseminates that warning. *See Seley v. G.D. Searle & Co.*, 67 Ohio St.2d 192, 198, 423 N.E.2d 831, 837 (Ohio 1981) ("The fact finder may find a warning to be unreasonable, hence inadequate, in its factual content, its expression of the facts, or the method or form in which it is conveyed."); *Thom v. Bristol-Myers Squibb Co.*, 353 F.3d 848, 853 (10th Cir. 2003) (noting that one of the factors to be considered in determining whether a warning is adequate is what means were used to convey it). In determining whether the manufacturer exercised "reasonable care" in issuing a warning, a jury could find that, because bisphosphonate-induced ONJ is often triggered by invasive dental procedures, NPC

had a duty to warn not only the prescribing physicians, but also the dental care providers who are, arguably, in an even better position to prevent the alleged harm.[4]

For the reasons set forth above, and those previously expressed by the MDL court in the "Wave I" cases, the Court concludes that genuine issues of material fact preclude summary judgment on the question of whether NPC breached its duty to provide timely and adequate warnings concerning the risk of bisphosphonate-induced ONJ.

(b) Proximate Causation

NPC also argues that Mathews has failed to produce sufficient evidence that the alleged inadequate warning proximately caused his injury. In *Seley*, the Ohio Supreme Court explained that, in the context of a "failure to warn" claim, proximate cause involves two sub-issues: "(1) whether lack of adequate warnings contributed to the plaintiff's [use] of the drug, and (2) whether [use] of the drug constitutes a proximate cause of the plaintiff's injury." 67 Ohio St.2d at 200, 423 N.E.2d at 838. NPC argues that Mathews's claim is deficient in both respects.

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[4] The question of whether a manufacturer exercised reasonable care in issuing a warning is distinct from the question of whether a manufacturer has discharged its duty to warn by providing an adequate warning to a learned intermediary. Therefore, the fact that the "learned intermediary" defense, codified in Ohio Revised Code § 2307.76(C), appears to apply only when a warning is given to the *prescribing physician*, does not mean that, under certain circumstances, a manufacturer's *duty to warn* may extend to other health care professionals as well. The Court expresses no opinion, at this juncture, about whether the "learned intermediary" defense could be extended to apply to warnings given to health care providers other than the prescribing physician.

NPC first argues that Mathews cannot prove that the lack of an adequate warning contributed to his use of Aredia®. Under Ohio law, it is presumed that if an adequate warning is given, it will be read and heeded. But where no warning is given, or where an inadequate warning is given, a rebuttable presumption arises that the failure to adequately warn was a proximate cause of the plaintiff's use of the drug. *Id.*

This presumption may be rebutted by proof that "an adequate warning would have made no difference in the physician's decision as to whether to prescribe a drug or as to whether to monitor the patient thereafter." *Id.* at 201, 423 N.E.2d at 838. Where a treating physician unequivocally testifies that an adequate warning would not have altered the course of treatment, summary judgment is warranted. However, if the evidence does not affirmatively establish that the physician "would not have behaved differently had he received a different warning," the proximate cause issue is best left to the jury. *Miller*, 759 F. Supp.2d at 936 (quoting *Williams v. Lederle Labs.*, 591 F. Supp. 381, 387 (S.D. Ohio 1984)).

NPC notes that Dr. Gordon, Mathews's oncologist, testified that even after he learned of the alleged connection between bisphosphonate drugs and ONJ, he still continued to prescribe Aredia® for Mathews because the benefits outweighed the risks. Gordon Dep. at 37-38; Ex. 34 to Doc. #8-21. NPC contends that Gordon's testimony is sufficient to rebut the presumption, and to warrant summary judgment on this claim.

Mathews maintains that Gordon's testimony is not necessarily dispositive. Quoting *In re: Aredia and Zometa Products Liability Litigation (White)*, 3:06-cv-550, Doc. #322 (M.D. Tenn. Aug. 13, 2009), he argues that, he can still withstand summary judgment by showing that "Plaintiff himself and/or Plaintiff's dentist or oral surgeon might have behaved differently." Mathews notes that Dr. Gordon also testified that had he known of the risk of ONJ, he would have: (1) discussed it with Mathews; and (2) stopped the bisphosphonate treatments for two or three months before Mathews had any invasive dental procedures. Gordon Dep. at 54; Ex. F to Doc. #8-26. The first is significant; the second is not.

Mathews testified that if Dr. Gordon had told him that Aredia® might cause ONJ, he would have refused to take it, despite his doctor's recommendation. According to Mathews, at the very least, he would not have even considered taking Aredia® unless and until he actually developed skeletal complications from his cancer. Mathews Dep. at 109-10; Ex. K to Doc. #8-26.

NPC maintains that Mathews's testimony is speculative and self-serving and should be disregarded. The Court disagrees. The Court cannot resolve credibility issues on a motion for summary judgment. In the Court's view, Mathews's deposition testimony is sufficient to create a genuine issue of material fact about whether his use of the drug was caused by the allegedly inadequate warning. A reasonable jury could find that if NPC had disclosed the risk of ONJ, Dr. Gordon would have discussed the risk with Mathews, and Mathews would have refused to take Aredia®, thereby altering his course of treatment.

Having found that Mathews's deposition testimony is sufficient to withstand summary judgment on this portion of the proximate cause issue, the Court need not address his alternate argument that if Dr. Gordon had known of the risk of ONJ, he would have stopped the bisphosphonate treatments for two or three months before Mathews had any invasive dental procedures. Nevertheless, the Court notes that Mathews has no presented no evidence to support a finding that a "drug holiday" would have averted the injury.[5]

The second sub-issue with respect to proximate cause is "whether [use] of the drug constitutes a proximate cause of the plaintiff's injury." *Seley*, 67 Ohio St.2d at 200, 423 N.E.2d at 838. NPC maintains that because Mathews has no admissible expert witness testimony on the issue of specific causation, summary judgment is appropriate. Again, this argument is foreclosed by the Court's decision overruling NPC's motion to exclude Dr. Sung's expert witness testimony.

The Court finds that genuine issues of material fact exist concerning whether the allegedly inadequate warning was the proximate cause of Mathews's injury. The Court therefore overrules NPC's motion for summary judgment on Count II of the Amended Complaint.

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[5] Mathews also argues that if his dental care providers had known of the risk of ONJ, they may have opted for alternative treatments rather than extracting his teeth. As NPC notes, however, Dr. Sung testified that Mathews developed ONJ in 2004, prior to the date of the extractions at issue. 10/12/11 Sung Dep. at 236; Ex. 2 to Doc. #8-29. This makes it very difficult for Mathews to show that a warning to avoid invasive dental procedures would have averted the injury.

4. Nonconformance with Manufacturer's Representations, Ohio Revised Code § 2307.77

In Count III of the Amended Complaint, Mathews alleges that NPC "expressly warranted, by and through statements made by Defendant or its authorized agents, that Aredia was safe, effective, and fit for its intended use." Am. Compl. ¶35. He further alleges that the drug did not conform to this warranty "because it caused serious adverse side effects, including osteonecrosis of the jaw." *Id.* at ¶37.

Ohio Revised Code § 2307.77 provides that "[a] product is defective if it did not conform, when it left the control of its manufacturer, to a representation made by that manufacturer." A "representation" is defined as an "express representation of a material fact concerning the character, quality, or safety of a product." Ohio Revised Code § 2307.71(A)(14).

To recover under this section of the OPLA, a plaintiff must prove:

> 1) that the manufacturer made a representation as to a material fact concerning the character or quality of the manufacturer's product;
> 2) that the product did not conform to that representation;
> 3) that the plaintiff justifiably relied on that representation; and
> 4) that the plaintiff's reliance on the representation was the direct and proximate cause of the plaintiff's injuries.

Gawloski v. Miller Brewing Co., 96 Ohio App.3d 160, 165, 644 N.E.2d 731, 734 (Ohio Ct. App. 1994).

NPC argues that summary judgment is appropriate because, based on the evidence presented, Mathews cannot prove that NPC made an express

representation as to any material fact concerning the character or quality of Aredia® and Zometa®. The Court agrees. Outside the bare allegations contained in the Amended Complaint, Mathews has not identified *any* express representation made by NPC -- on the drug labels, in any advertising, or in any oral communications to Mathews or his health care professionals – on which he or his doctors relied. In his Memorandum in Opposition to NPC's Motion for Summary Judgment, he argues only that "[a] drug warranted to help bones destroyed [his] jaw bone." Doc. # 8-26, at 17.

In response to NPC's motion, Mathews cites to *Knipe v. SmithKline Beecham*, 583 F. Supp.2d 602 (E.D. Pa. 2008), in support of his argument that summary judgment is not appropriate on this claim. That case, however, is inapposite for two reasons. First, it involved a breach of express warranty claim under New Jersey law. Second, unlike Mathews, the plaintiff in that case did identify specific representations made by the drug manufacturer concerning the safety and effectiveness of the drug at issue. *See id.* at 624 ("Plaintiff has referenced several public representations by GSK or by researchers, seemingly connected with GSK, which could possibly form the basis of the claimed 'off-label' promotion" of the drug for pediatric use).

Here, because Mathews has identified no express representation made by NPC, and has pointed to no evidence to substantiate his allegation that NPC "expressly warranted . . . that Aredia was safe, effective, and fit for its intended use," summary judgment is warranted on this claim. *See Krumpelback v. Breg,*

Inc., 491 F. App'x 713, 722 (6th Cir. 2012) (interpreting Ohio Revised Code § 2307.77). The Court therefore sustains NPC's motion for summary judgment on Count III of the Amended Complaint.

IV. *Daubert* Motion to Exclude Testimony of Plaintiff's Experts Dr. Suzanne Parisian, Dr. Robert Marx, Dr. Robert Fletcher, Professor Wayne Ray, Dr. Keith Skubitz, and Dr. James Vogel (Doc. #8-18)

In the MDL Court, Defendant NPC also filed a *Daubert* Motion to Exclude Testimony of Plaintiff's Experts Dr. Suzanne Parisian, Dr. Robert Marx, Dr. Robert Fletcher, Professor Wayne Ray, Dr. Keith Skubitz, and Dr. James Vogel. Doc. #8-18. The motion was filed in connection with all of the "Wave III" cases, and it incorporated by reference all previous motions and briefs filed in the previous "Waves" of litigation. Neither the MDL Court nor the United States District Court for the Southern District of New York ruled on the pending motion before the case was transferred to this Court.

During a conference call held on September 9, 2013, counsel for the parties agreed that Mathews would not be relying on the testimony of Dr. Robert Fletcher. The motion is, therefore, moot as to Dr. Fletcher. With respect to the other five case-wide expert witnesses, the parties agreed to be bound by this Court's rulings on the *Daubert* motions that were filed in two other MDL cases transferred to this Court, *Bowles v. Novartis Pharmaceuticals Corporation*, Case No. 3:12-cv-145, and *Sheffer v. Novartis Pharmaceuticals Corporation*, Case No. 3:12-cv-238.

On September 20, 2013, the Court issued a Decision and Entry Sustaining in Part and Overruling in Part Defendant NPC's *Daubert* Motions to Exclude Plaintiffs' Expert Witness Testimony in *Bowles* and *Sheffer*. Doc. #65 in Case No. 3:12-cv-145, and Doc. #61 in Case No. 3:12-cv-238. That Decision and Entry is attached as Exhibit 1 to this document, and is incorporated by reference. As agreed, Mathews's expert witnesses will be bound by the general holdings contained in that Decision and Entry.

During the September 9, 2013, conference call, it was agreed that the parties would file supplemental memoranda addressing any arguments specific to Mathews's case. NPC has made two case-specific arguments. First, it argues that Drs. Marx, Vogel, and Skubitz should not be permitted to testify about the benefits of pretreatment dental screening and avoiding invasive dental procedures, because those opinions do not "fit" the facts of this case and are, therefore, irrelevant. NPC maintains that there is no evidence that a dental screening done before Mathews began his Aredia® treatments in 1999 would have detected any problems or changed the course of treatment. It further argues that because Mathews's ONJ developed spontaneously, and not as the result of any extractions, a warning to avoid invasive dental procedures would not have made any difference. Moreover, by the time Mathews had his teeth extracted in 2005 and 2006, the package inserts already included warnings about avoiding invasive dental procedures. NPC further argues that there were no viable alternatives to extracting the teeth at issue. Kleinman Dep. at 25-26, 54-55; Ex. 48 to Doc. #8-21.

Second, NPC argues that Dr. Vogel and Dr. Skubitz should not be permitted to testify about alternative, reduced dosing schedules for the drugs. It contends that, because the "Corso study" on which the doctors rely was not published until 2007, after Mathews ceased his bisphosphonate treatments, that study cannot support an opinion that Mathews should have been on a different dosing schedule.

Although Mathews was given an opportunity to respond to these case-specific arguments, he filed nothing to rebut them, impliedly conceding that the expert witness opinions on these topics are inapplicable. Based on the evidence presented, the Court agrees with NPC that expert witness testimony concerning the benefits of pretreatment dental screening and avoiding invasive dental procedures, and expert witness testimony about alternative, reduced dosing schedules is irrelevant to the facts of this particular case. As such, Mathews's expert witnesses will not be permitted to testify concerning these topics.

For the reasons set forth in the Court's September 20, 2013, Decision and Entry in *Bowles* and *Sheffer*, Doc. #65 in Case No. 3:12-cv-145, and Doc. #61 in Case No. 3:12-cv-238, and the reasons discussed herein, the Court sustains in part and overrules in part Defendant NPC's *Daubert* Motion to Exclude Testimony of Plaintiff's Experts Dr. Suzanne Parisian, Dr. Robert Marx, Dr. Robert Fletcher, Professor Wayne Ray, Dr. Keith Skubitz, and Dr. James Vogel, Doc. #8-18.

V. Conclusion

For the reasons set forth above, the Court:

(1) OVERRULES Defendant NPC's *Daubert* Motion to Exclude Causation Testimony of Plaintiff's Experts, Doc. #8-22;

(2) SUSTAINS IN PART and OVERRULES IN PART Defendant NPC's Motion for Summary Judgment, Doc. #8-19, (summary judgment is granted as to Counts I and III of the Amended Complaint); and

(3) SUSTAINS IN PART AND OVERRULES IN PART Defendant NPC's *Daubert* Motion to Exclude Testimony of Plaintiff's Experts Dr. Suzanne Parisian, Dr. Robert Marx, Dr. Robert Fletcher, Professor Wayne Ray, Dr. Keith Skubitz, and Dr. James Vogel, Doc. #8-18.

Date: October 24, 2013

WALTER H. RICE
UNITED STATES DISTRICT JUDGE

EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF OHIO
WESTERN DIVISION

BARBARA BOWLES, Plaintiff, v. NOVARTIS PHARMACEUTICALS CORPORATION, Defendant	:	Case No. 3:12-cv-145 JUDGE WALTER H. RICE
SHIRLEY E. SHEFFER, *et al.*, Plaintiffs, v. NOVARTIS PHARMACEUTICALS CORPORATION, Defendant	:	Case No. 3:12-cv-238 JUDGE WALTER H. RICE

DECISION AND ENTRY SUSTAINING IN PART AND OVERRULING IN PART: (1) DEFENDANT'S MOTIONS TO EXCLUDE TESTIMONY OF PLAINTIFF'S EXPERT DR. KEITH SKUBITZ (DOC. #30 IN CASE NO. 3:12-cv-145 and DOC. #31 IN CASE NO. 3:12-cv-238); (2) DEFENDANT'S MOTIONS TO EXCLUDE TESTIMONY OF PLAINTIFF'S EXPERT DR. JAMES VOGEL (DOC. #31 IN CASE NO. 3:12-cv-145 and DOC. #33 IN CASE NO. 3:12-cv-238); (3) DEFENDANT'S MOTIONS TO EXCLUDE TESTIMONY OF PLAINTIFF'S EXPERT DR. SUZANNE PARISIAN (DOC. #32 IN CASE NO. 3:12-cv-145 and DOC. #34 IN CASE NO. 3:12-cv-238); (4) DEFENDANT'S MOTIONS TO EXCLUDE TESTIMONY OF PLAINTIFF'S EXPERT PROFESSOR WAYNE RAY (DOC. #33 IN CASE NO. 3:12-cv-145 and DOC. #35 IN CASE NO. 3:12-cv-238); AND (5) DEFENDANT'S MOTION TO EXCLUDE TESTIMONY OF PLAINTIFF'S EXPERT DR. ROBERT MARX ((DOC. #35 IN CASE NO. 3:12-cv-145 and DOC. #36 IN CASE NO. 3:12-cv-238)

Plaintiffs in the above-captioned cases allege that they developed osteonecrosis of the jaw ("ONJ") as a result of receiving infusions of Defendant's bisphosphonate drugs, Aredia® and Zometa.® This matter is currently before the Court on numerous motions filed by Defendant, Novartis Pharmaceuticals Corporation ("NPC"), seeking to exclude the testimony of Plaintiffs' retained expert witnesses Dr. Keith Skubitz, Dr. James Vogel, Dr. Suzanne Parisian, Professor Wayne Ray, and Dr. Robert Marx.

I. Background

Defendant NPC manufactures, markets and distributes the bisphosphonate drugs Aredia® and Zometa.® These intravenous drugs are approved by the Food and Drug Administration ("FDA"), and routinely prescribed to cancer patients whose cancer has metastasized to the bone. They have proven effective in preventing bone pain, fractures and other skeletal complications. Despite their significant benefits, Aredia® and Zometa® allegedly also cause osteonecrosis of the jaw ("ONJ"), or death of a portion of the jawbone, in a significant number of patients.

After Plaintiff Barbara Bowles was diagnosed with multiple myeloma in 1997, her oncologist prescribed monthly infusions of Aredia®. In July of 2001, after having a tooth extracted, she experienced significant jaw problems, including a wound that would not heal, pus drainage, an unpleasant odor, and jaw pain. In

July of 2006, Bowles was diagnosed with ONJ, which was allegedly caused by the Aredia®. This prompted her oncologist to discontinue the Aredia® treatments.

Plaintiff Shirley Sheffer was diagnosed with breast cancer in May of 2005. Her oncologist prescribed Zometa®, which is Aredia's® successor drug. In March of 2006, her dentist found that one of Sheffer's teeth was infected and part of her jawbone was exposed. He referred her to specialists, who diagnosed ONJ, allegedly caused by the Zometa®. She had the infected tooth extracted and, several months later, had another tooth extracted. She has been plagued with infection and pain since then. In 2008, her jaw broke at the site of the first extraction.

Both Plaintiffs filed suit against NPC in the United States District Court for the District of Columbia, asserting various product liability claims. The United States Judicial Panel on Multidistrict Litigation ("MDL") consolidated their cases for pretrial purposes in the United States District Court for the Middle District of Tennessee, along with hundreds of similar cases that had been filed nationwide. *In re: Aredia and Zometa Products Liability Litigation*, No. 3:06-md-1760 (M.D. Tenn.). Those cases were subdivided into several litigation "waves" and ultimately remanded to the transferor courts. Plaintiffs' cases are both part of "Wave III." Because both Plaintiffs are residents of Ohio, their cases were later transferred to this district for further proceedings.

In connection with its Motions for Summary Judgment in the above-captioned cases, NPC has moved to exclude or limit the testimony of several of

Plaintiffs' expert witnesses. Notably, these are case-wide witnesses, having been retained to testify on behalf of the plaintiffs in nearly all of the MDL cases against NPC. Prior to remanding the cases to the transferor courts, the MDL Court issued several rulings concerning these expert witnesses. Those decisions constitute the "law of the case," and will not be revisited.[1] *See Deutsch v. Novartis Pharmaceuticals Corp.*, 768 F. Supp.2d 420, 428-29 (E.D.N.Y. 2011) (noting that reversing decisions made by the MDL Court would lead to inconsistent pretrial rulings and would undermine the purpose of the Multi District Litigation Act).

Once the MDL Court remanded the cases to the transferor courts, NPC filed motions to exclude and to further limit the testimony of these expert witnesses. As Plaintiffs note, although some transferor courts have limited a portion of the expert witness testimony, virtually no court has completely excluded the testimony of any of these witnesses. In the above-captioned cases, as it has in the other transferor courts, NPC generally challenges the qualifications and the methodology of the expert witnesses. NPC also makes several case-specific objections, arguing that some of the expert witness testimony simply does not fit the facts of these two cases.

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[1] Under the "law of the case" doctrine, this court cannot reconsider issues decided at an earlier stage of the proceedings. *McKenzie v. BellSouth Telecommunications, Inc.*, 219 F.3d 508, 512 (6th Cir. 2000). Exceptions exist "(1) where substantially different evidence is raised on subsequent trial; (2) where a subsequent contrary view of the law is decided by the controlling authority; or (3) where a decision is clearly erroneous and would work a manifest injustice." *Hanover Ins. Co. v. Am. Eng'g Co.*, 105 F.3d 306, 312 (6th Cir. 1997).

II. Legal Standard for Admissibility Under Federal Rule of Evidence 702 and *Daubert*

The admissibility of expert witness testimony is governed by Federal Rule of Evidence 702. That rule states:

> A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:
>
> (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
> (b) the testimony is based on sufficient facts or data;
> (c) the testimony is the product of reliable principles and methods; and
> (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702.

In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), the Supreme Court assigned the trial judge a "gatekeeping" function. The trial judge must ensure that the expert witness's testimony "both rests on a reliable foundation and is relevant to the task at hand." *Id.* at 589. The Court need not hold a hearing, but "is required to make an initial assessment of the relevance and reliability of the expert testimony." *Greenwell v. Boatwright*, 184 F.3d 492, 498 (6th Cir. 1999).

As previously noted, many other transferor courts have already addressed nearly identical motions filed by NPC in the other MDL cases, and several of those courts have held *Daubert* hearings. Because this Court has the benefit of those

previous decisions and several transcripts, it sees no need for any additional *Daubert* hearings.

III. Expert Witnesses

A. Dr. Keith Skubitz

Dr. Keith Skubitz is an oncologist on the faculty at the University of Minnesota. The MDL Court has already determined that Dr. Skubitz is qualified as an expert witness to testify about general causation, *i.e.*, whether Aredia® and Zometa® cause ONJ, and about the medical accuracy of the warnings given by NPC. NPC acknowledges that this is the law of the case. The MDL Court, however, did not consider the admissibility of Dr. Skubitz's opinions concerning alternative dosing intervals or the benefit of pretreatment dental screening. *In re Aredia & Zometa Products Liability Litigation*, No. 3:06-md-1760, Doc. #2810, (M.D. Tenn. Aug. 13, 2009).

NPC now seeks to exclude Dr. Skubitz's testimony concerning: (1) alternative dosing intervals; (2) the benefit of pretreatment dental screening; (3) the drafting and approval of the Aredia® and Zometa® labels; and (4) the inclusion of the incidence rate of ONJ in the Aredia® and Zometa® labels. NPC argues that Dr. Skubitz is not qualified to offer an opinion on these topics.

1. Alternative Dosing Intervals

In Section V of his rebuttal expert witness report, Dr. Skubitz opines that alternative dosing schedules may be just as effective as the ongoing monthly

infusions suggested by NPC, and would reduce the risk of ONJ. He gives his own patients monthly infusions of Zometa® for 10 months, and then reduces the frequency of the infusions. With some patients, he terminates bisphosphonate therapy altogether after two years. He notes that, in doing so, he has not seen a noticeable increase in the rate of skeletal events. Ex. 4 to Doc. #30 in Case No. 12-cv-145. He admitted, however, that it is possible that the reduced dosing is not as effective as the ongoing infusions recommended by NPC. Skubitz Dep. at 332 (Ex. 3 to Doc. #30 in Case No. 12-cv-145).

NPC argues that Dr. Skubitz's opinion is nothing but *ipse dixit*, and is inadmissible. It notes that in *Deutsch v. Novartis Pharmaceuticals Corp.*, 768 F. Supp.2d 420, 447 (E.D.N.Y. 2011), the transferor court held that, to the extent Dr. Skubitz's opinion was based solely on his personal observations of his own patients, and was not supported by any data, it was inadmissible. Dr. Skubitz, however, also bases his opinion on the "Corso study," which found that reducing the dose of Zometa® to once every three months, after one year of monthly infusions, reduces the risk of ONJ without decreasing the effectiveness of the drug. *See* A. Corso *et al., A Different Schedule of Zoledronic Acid Can Reduce the Risk of the Osteonecrosis of the Jaw in Patients with Multiple Myeloma*, 21 Leukemia 1545, 1548 (2007). Ex. 5 to Doc. #30 in Case No. 12-cv-145.

NPC argues that the Corso study is not scientifically reliable because there was no control group, and it is not clear whether the patients in that study had conditions that satisfy Dr. Skubitz's definition of ONJ. The court in *Deutsch*

rejected these arguments, finding that the lack of a control group goes to the weight of the testimony, not to its admissibility, and that study's lack of a precise definition of ONJ is not a fatal flaw. Therefore, to the extent that Dr. Skubitz's opinion about alternative dosing was premised on relevant medical literature, the court found it to be admissible. 768 F. Supp.2d at 446-47. This Court agrees with the *Deutsch* court's reasoning with respect to the reliability of Dr. Skubitz's opinion about alternative dosing.

The question remains, however, whether his opinion is relevant to the remaining claims in either of the above-captioned cases. As NPC notes, because Sheffer developed ONJ within one year after beginning Zometa® treatments, and ceased treatment immediately after she was diagnosed with ONJ, Dr. Skubitz's proposed alternative dosing schedule does not appear to apply to her at all. Sheffer has made no effort to respond to this argument. Because the Court finds that she has failed to demonstrate that Dr. Skubitz's testimony on this topic is relevant to her claims, it is inadmissible in her case.

In contrast, because Bowles received monthly infusions of Aredia® for several years before developing ONJ, Dr. Skubitz's testimony appears to be relevant to her situation. NPC argues, however, that because the Corso study, on which Dr. Skubitz bases his opinion, was published *after* Bowles ceased Aredia® treatments, it does not support a finding that Bowles should have been on a different dosing schedule. If, during the time period that Bowles was receiving Aredia®, no evidence existed that a reduced dosing schedule would be just as

effective and less risky, Dr. Skubitz's testimony on this topic is irrelevant. Again, Bowles completely fails to respond to this argument. Since Bowles has failed to show that Dr. Skubitz's testimony is relevant to her claims, it is inadmissible.

2. Benefit of Pretreatment Dental Screening and Stronger Warnings

Dr. Skubitz also opines that pretreatment dental screenings and strong warnings about avoiding invasive dental procedures are beneficial in reducing the risk of ONJ. Report, at ¶126 (Ex. 2 to Doc. #30 in Case No. 3:12-cv-145). NPC maintains that this testimony is irrelevant and inadmissible because there is no evidence that such measures would have made any difference in Plaintiffs' cases.

Bowles's problems began after she had a tooth extracted in 2001. Her dentist testified that because the tooth was so deeply decayed, extraction was the only option. Mazzola Dep. at 62; Ex. 11 to Doc. #35 in Case No. 3:12-cv-145. As the Court noted, however, in ruling on NPC's Motion for Summary Judgment in Bowles's case, that tooth was allegedly removed as a "precautionary" measure before she began chemotherapy. With a stronger warning of the risk posed by invasive dental procedures, it may be reasonably inferred that her dentist would have heeded that warning and adopted a "wait and see" approach rather than extracting the tooth.

In this respect, the Court finds that Dr. Skubitz's testimony concerning the benefits of strong warnings to avoid invasive dental procedures is relevant to Bowles's inadequate warning claim, and is admissible. However, the Court agrees that there is no evidence that a pretreatment dental screening would have made

any difference in Bowles's case. Therefore, Dr. Skubitz's testimony on this topic is irrelevant and inadmissible.

The opposite is true with respect to Sheffer. NPC argues that Dr. Skubitz's testimony concerning warnings about avoiding invasive dental procedures is irrelevant because Sheffer's ONJ was not triggered by an invasive dental procedure. The Court agrees. NPC also argues that Dr. Skubitz's testimony about the benefits of pretreatment dental screening is irrelevant because Sheffer had regular dental care before beginning Zometa®. Sheffer notes, however, that she had documented signs of early periodontal disease before she began her Zometa® treatments, and was diagnosed with periodontal disease just a few months after she began her treatments. Harju Dep. at 41 (Ex. 6 to Vecchione Decl., Doc. #5479 in MDL-1760); Kroger Dep. at 39 (Ex. 4 to Vecchione Decl.). She argues that it can reasonably be inferred that if she had a pretreatment dental screening, she would have been diagnosed with periodontal disease at that time, and this would have altered her course of treatment. To this extent, the Court finds that Dr. Skubitz's testimony concerning the benefits of pretreatment dental screening is relevant to Sheffer's inadequate warning claim.

NPC also argues that Dr. Skubitz's opinion is not supported by reliable scientific evidence. It notes that Dr. Marx admits that "the jury is still out in terms of controlled data" concerning the benefits of pretreatment screening, and that the retrospective chart review on which Dr. Skubitz relies lacks a quantitative

statistical analysis. Marx Dep. at 1366-67, 1381 (Ex. 7 to Doc. #30 in Case No. 3:12-cv-145).

The Court rejects these arguments. As Plaintiffs note, there are several studies cited in the record that support Dr. Skubitz's opinion, as do the guidelines issued by the American Association of Oral and Maxillofacial Surgeons. Ex. 12 to Doc. #40 in Case No. 3:12-cv-145. Even more significantly, David Epstein, NPC's own employee, admits that pretreatment screening is effective in reducing the risk of ONJ. Ex. 15 to Doc. #40 in Case No. 3:12-cv-145. The Court finds that Dr. Skubitz's opinion on this topic is relevant and reliable.

3. Drafting and Approval of Label Language

NPC notes that Dr. Skubitz has admitted that he is not an expert on the labeling of drugs. Skubitz Dep. at 159, 223-25; Ex. 3 to Doc. #30 in Case No. 3:12-cv-145. NPC seeks to exclude Dr. Skubitz's testimony "on the development of the Aredia® and Zometa® labeling language" and "NPC's participation and discussions with FDA regarding approval of the labels." Doc. #30 in Case No. 3:12-cv-145, at 10.

Citing *Deutsch*, 768 F. Supp.2d at 440, NPC argues that Dr. Skubitz should not be permitted to testify about whether the warnings complied with FDA regulations. The court in *Deutsch* agreed that Dr. Skubitz was not qualified to testify on this topic, but noted that it did not appear that plaintiffs intended to elicit any such testimony. It further held that Dr. Skubitz could offer his expert opinion

"as to the adequacy of the labels from the perspective of [an] oncologist[] and prescribing physician[]." *Id.*

Dr. Skubitz plans to testify that the labels should have indicated that the risk of ONJ increases with cumulative doses of bisphosphonate drugs, and that ONJ occurs more frequently in patients treated with Zometa® than with Aredia®. NPC argues that these opinions are inadmissible because his hypothesis is based on literature that, for various reasons, is not scientifically reliable. The Court agrees with Plaintiffs, however, that Dr. Skubitz's opinions on this subject fall under the broad umbrella of testimony already deemed admissible by the MDL Court. It held that his testimony concerning "scientific and medical accuracy of the warnings given by Novartis is clearly more than unsupported speculation" and is admissible under *Daubert*. Ex. 2 to Doc. #40 in Case No. 3:12-cv-145. Under the law-of-the-case doctrine, this is not subject to reconsideration.

Finally, NPC argues that Dr. Skubitz's testimony concerning what should have been included on the labels is irrelevant to Plaintiffs' claims. It notes that the publications on which Dr. Skubitz relies were not available before Bowles developed ONJ. The MDL Court, however, has already held that there are genuine issues of material fact concerning what NPC knew about the risk of ONJ, and when. Ex. #1 to Doc. #47 in Case No. 3:12-cv-145. Moreover, although the warning labels were revised several times before Sheffer began Zometa® therapy, those label revisions did not address the specific risks that Dr. Skubitz opines should have been disclosed -- the increased risk of ONJ associated with cumulative

doses of bisphosphonate drugs, and the increased risk of ONJ in patients treated with Zometa® instead of Aredia®. At this juncture, the Court cannot say that Dr. Skubitz's testimony is irrelevant to Plaintiffs' claims.

For these reasons, the Court finds that Dr. Skubitz may testify about what other information he believes should have been included on the drug labels.

4. Inclusion of Incidence Rate in Labels

Finally, NPC argues that Dr. Skubitz should not be allowed to testify that the Aredia® and Zometa® labels should have included information regarding an ONJ incidence rate of 5%. According to NPC, the only controlled studies show an incidence rate of just 1%. The Court agrees with Plaintiffs that Dr. Skubitz's testimony on what should have been included on the labels also falls under the broad umbrella of testimony already deemed admissible by the MDL Court. Accordingly, the Court will not revisit this issue since this is the law of the case.

B. Dr. James Vogel

Dr. James Vogel is a practicing oncologist and hematologist who regularly prescribes Aredia® and Zometa®, and has patients with bisphosphonate-induced ONJ. The MDL Court, in connection with the first "wave" of cases, already determined that Dr. Vogel is qualified to testify concerning general causation and the adequacy of the warning labels. *In re: Aredia and Zometa Products Liability Litigation*, No. 3:06-md-1760 (M.D. Tenn. Aug. 13, 2009) (Ex. 1 to Doc. #45 in Case No. 3:12-cv-145). It expressly declined to rule on the admissibility of his opinions concerning NPC's corporate conduct, the effect of the delay in

transmitting adequate warnings, and the benefits of pretreatment dental screening. *Id.* NPC now seeks to exclude several of these categories of Dr. Vogel's expert witness testimony.

1. Corporate Conduct Related to Labeling

Dr. Vogel opines that NPC misrepresented causation evidence, referenced corticosteroids as potential risk factors for ONJ to misdirect the focus of attention away from the jaw area, minimized the incidence rate of ONJ, and failed to revise its labeling to indicate that ONJ occurs after fewer infusions of Zometa® than Aredia® and that reduced dosing levels decrease the incidence of ONJ. Vogel Report ¶ 62 (Ex. 1 to Doc. #31 in Case No. 3:12-cv-145).

NPC seeks to exclude this testimony on three grounds: (1) it is not based on any scientific or technical expertise and, therefore, is not an appropriate topic for expert testimony; (2) Dr. Vogel, who admits that he is not an expert on prescription drug labeling and has never worked for a pharmaceutical company, is not qualified to render an opinion on this subject; and (3) it is unreliable, speculative, and based on a limited review of corporate documents.

The Court rejects each of these arguments. Dr. Vogel's scientific knowledge and medical expertise will help the trier of fact to understand the evidence and to determine whether NPC adequately warned of the risk. *See Deutsch*, 768 F. Supp.2d at 443 ("It may not be apparent to a layperson what type of information a doctor expects to receive from the company advertising a drug and what information they are expected to and are able to ascertain on their own.

Furthermore, it may not be apparent to a layperson why including some risk factors and not others are misleading to a prescribing doctor.") It is, therefore, a proper topic of expert testimony. Fed. R. Evid. 702(a).

As with Dr. Skubitz, the fact that Dr. Vogel is not an expert on prescription drug labeling does not disqualify him from testifying, from a physician's point of view, that certain labels are false or misleading or lack critical information. *See Deutsch*, 768 F. Supp.2d at 440-41. He will not, however, be permitted to testify about NPC's intent, motive, or state of mind since this is not an appropriate subject of expert witness testimony. *Id.* at 442.

NPC also argues that Dr. Vogel's criticisms are based on documents cherry-picked by Plaintiffs' counsel, and are based on insufficient facts and data. These objections, however, go to the weight to be given Dr. Vogel's testimony, not its admissibility.

2. Pretreatment Dental Screening

NPC also asks the Court to exclude Dr. Vogel's opinion that preventative dental screening done prior to bisphosphonate treatment reduces the risk of ONJ. Vogel Report at ¶61. It first argues that, because he is not a dentist or oral surgeon, he is not qualified to issue such an opinion. The Court disagrees. As the court held in *Deutsch*, "Dr. Vogel's extensive experience as an oncologist and hematologist including treating patients with bisphosphonate therapy provides a reliable basis for his opinions on the benefits of preventative measures such as pretreatment dental screening." 768 F. Supp.2d at 437.

NPC further argues that Dr. Vogel's opinion is not based on sufficient, reliable facts or data. NPC notes that the LaVerde article[2] did not analyze the benefits of pretreatment screening, but rather dental monitoring of patients who were already on bisphosphonates. Dr. Vogel, however, did not base his opinion on that article, but on case reports. 4/2/09 Vogel Dep. at 275 (Ex. 3 to Doc. #31 in Case No. 3:12-cv-145). Moreover, as previously noted, there is significant medical literature pointing to the benefits of pretreatment screening, and one of NPC's own employees has admitted that screening is effective in reducing the risk of ONJ. Ex. 15 to Doc. #40 in Case No. 3:12-cv-145. The Court finds that Dr. Vogel's opinion on this issue is admissible. *See Deutsch*, 768 F. Supp.2d at 438 (finding that Dr. Vogel's opinion on this issue satisfies the *Daubert* standard). NPC is free to challenge the bases for his opinion on cross-examination.

NPC also argues, in a footnote, that evidence of the benefits of pretreatment dental screening is irrelevant to the cases at issue. With respect to Sheffer, the Court rejects this argument for the reasons previously stated in Section III(A)(2). However, with respect to Bowles, since there is no evidence that pretreatment dental screening would have made any difference, the Court agrees that Dr. Vogel's testimony is irrelevant and inadmissible.

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[2] LaVerde, *Osteonecrosis of the Jaw (ONJ) in Cancer Patients Treated With Bisphosphonates: How the Knowledge of a Phenomenon Can Change Its Evolution*, -- Support Care Cancer -- (2008) (Ex. 7 to Doc. #31 in Case No. 3:12-cv-145).

3. Incidence Rates of ONJ

Dr. Vogel opines that the incidence rate of ONJ among patients taking Zometa® is "generally five percent or above." Vogel Report ¶ 47. NPC maintains that this opinion should be excluded because it is based on insufficient data. According to NPC, the articles on which Dr. Vogel relies have no uniform diagnostic criteria for ONJ, and he failed to consider data from later, randomized, double-blind controlled studies showing that the incidence rate is closer to one percent. NPC also argues that he selectively relied on his own experience with patients.

In his report, however, Dr. Vogel cites to numerous publications that support his opinion concerning the five percent incidence rate. *Id.* at ¶49. In the Court's view, NPC's objections go to the weight to be given to Dr. Vogel's testimony, not to its admissibility. He may, therefore, testify concerning the five percent incidence rate.

4. Dose and Duration

NPC also seeks to exclude Dr. Vogel's opinion that a reduced dosing schedule would be just as effective and less risky, and that NPC should have disseminated this information to the medical community. NPC maintains that Dr. Vogel's opinion is based on the Corso study, which NPC again argues is scientifically unreliable. For the reasons stated above in Section III(A)(1), the Court rejects this argument.

NPC further argues that the Court should exclude Dr. Vogel's opinion that NPC improperly failed to disseminate information to health care providers about reduced dosing schedules. Citing *Brodie v. Novartis Pharmaceuticals Corp.*, No. 4-10CV00138, at 2-3 (E.D. Mo. Jan. 20, 2012) (Ex. 5 to Doc. #31 in Case No. 3:12-cv-145), NPC argues that this is not a topic within Dr. Vogel's area of expertise.

Regardless of whether the Court finds that Dr. Vogel is qualified to testify on this topic, Plaintiffs have failed to show how his testimony is relevant to their claims. NPC notes that both Plaintiffs ceased their bisphosphonate drug therapy before the studies concerning reduced dosing were published. Again, Plaintiffs completely fail to respond to this argument. Because Plaintiffs have failed to show that Dr. Vogel's testimony on this topic is relevant to their claims, it is inadmissible.

5. Mechanism of Action

Finally, NPC seeks to exclude Dr. Vogel's opinion that bisphosphonates are more likely to accumulate in the jaw than in other bones due to higher remodeling rates and uptake. Rebuttal Report ¶16 (Ex. 16 to Doc. #31 in Case No. 3:12-cv-145). Dr. Vogel admits that he is not an expert on bone physiology. *Id.* NPC notes that, based on this admission, one court found that Dr. Vogel was not qualified to opine on how bisphosphonates affect bone. *Brodie,* at 2-3.

In admitting Dr. Vogel's testimony concerning general causation, however, the MDL Court has already impliedly held that Dr. Vogel is qualified to testify on

this topic. Moreover, "he is not proffering this opinion as the definitive mechanism, but rather for the proposition that it is a plausible mechanism that has been identified based on his professional understanding of the relevant literature." *Deutsch*, 768 F. Supp.2d at 439. The Court will, therefore, allow him to testify concerning the mechanism of action.

C. Dr. Suzanne Parisian

Dr. Suzanne Parisian is a board-certified pathologist who was previously employed by the FDA. She is now a regulatory consultant, and was retained by Plaintiffs as an expert witness to testify about NPC's compliance with FDA regulations in connection with the development and marketing of Aredia® and Zometa®.

1. Qualifications

NPC argues that Dr. Parisian is not qualified to offer opinions concerning compliance with FDA regulations because her previous employment with the FDA was in the area of medical devices, not prescription drugs, and she has never worked for a pharmaceutical company. This argument has been consistently rejected by every transferor court to address it. *See, e.g.*, *Brown v. Novartis Pharm. Co.*, No. 7:08-cv-130, Mem. and Recommendation, at 4-7 (E.D.N.C. Jan. 9, 2012) (Ex. 2 to Doc. #32 in Case No. 3:12-cv-145); *Winter v. Novartis Pharm. Co.*, No. 06-4049-CV-C, Order, at 5-6 (W.D. Mo. March 8, 2012) (Ex. 8 to Doc.

#44 in Case No. 3:12-cv-145).[3] This Court also finds that Dr. Parisian "is qualified to testify with regard to the FDA in general and the regulatory requirements relating to the development, testing, marketing, and post-market surveillance of prescription drugs." *Deutsch*, 768 F. Supp.2d at 464.

NPC further argues that Dr. Parisian's testimony must be excluded because she acts as a "superlawyer," usurping the jury's function of deciding the facts, and offering impermissible legal conclusions about whether NPC acted in compliance with FDA regulations. She admitted at her deposition that the FDA has not made a written determination that NPC violated any regulations in connection with its development, marketing, labeling and monitoring of Aredia® and Zometa®. 4/17/09 Parisian Dep. at 469 (Ex. 14 to Doc. #32 in Case No. 3:12-cv-145).

The Court agrees that it is not the function of an expert witness to offer legal conclusions, and Dr. Parisian will not be permitted to do so. Nevertheless, based on her experience, Dr. Parisian is entitled to offer testimony about what the FDA regulations require of drug manufacturers. *See Georges v. Novartis Pharm. Corp.*, Case No. CV06-5207, Order at 10-11 (C.D. Cal. Nov. 2, 2012) (Ex. 13 to Doc. #44 in Case No. 3:12-cv-145).

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[3] Dr. Parisian's testimony was excluded in its entirety in *Hogan v. Novartis Pharmaceuticals Corp.*, No. 06 Civ. 260, 2011 WL 1533467, at *2 (E.D.N.Y. Apr. 24, 2011). The court found her testimony on regulatory matters to be irrelevant because the plaintiff's claims, grounded solely in state law, made no reference to FDA regulations. This case is factually distinguishable on that basis.

2. Qualification to Testify about Regulatory Causation

NPC next urges the Court to exclude Dr. Parisian's testimony concerning "regulatory causation," arguing that she is not qualified to offer her opinion on this topic. Plaintiffs do not intend to have her testify about medical causation, *i.e.*, whether the use of bisphosphonate drugs causes ONJ. Instead, they want to elicit her testimony about a "causal association" between the two. At a *Daubert* hearing in *Talley v. Novartis Pharmaceuticals Corp.*, No. 3:08-cv-361, Tr. at 124 (W.D.N.C. June 20, 2011) (Ex. 16 to Doc. #32 in Case No. 3:12-cv-145), Dr. Parisian explained that "regulatory causation" is distinguishable from "medical causation," and concerns "the type of information that physicians and dentists need to know in order to care for their patients."

Several transferor courts have rejected this alleged distinction as confusing and misleading. They have not allowed Dr. Parisian to testify at all with respect to causation, finding her unqualified to offer an opinion related to the cause or diagnosis of ONJ. *See Brown*, Mem. and Recommendation, at 11-12; *Georges*, Order at 12. In *Deutsch*, the court found that Dr. Parisian's opinion -- that NPC acted improperly in disregarding certain case reports from the clinical trials -- was necessarily based on her opinion that the case reports involved bisphosphonate-induced ONJ. Because Dr. Parisian was not qualified to diagnose bisphosphonate-induced ONJ, neither was she qualified to offer an opinion concerning the propriety of NPC's actions. 768 F. Supp.2d at 469. The Court finds this reasoning persuasive. Accordingly, Dr. Parisian will not be permitted to testify about

"regulatory causation" or a "causal association" between bisphosphonate drugs and ONJ.

3. Qualification to Testify about Adequacy of Warning Labels

NPC also argues that Dr. Parisian is not qualified to testify about the adequacy of NPC's warning labels for Aredia® and Zometa®, and that she lacks a basis for her opinion on this topic. It notes that she does not profess to be an expert on these drugs, and has never prescribed them or weighed their risks and benefits. However, as the court noted in *Brown*, Dr. Parisian has extensive experience in drafting and reviewing product labels, and almost all of the courts that have addressed this issue have considered her to be well qualified to testify on this topic. *Brown*, Mem. and Recommendation, at 12-13.

NPC further notes that Dr. Parisian has not drafted any alternative labeling that would have been more appropriate. Some courts have excluded expert witness testimony concerning the adequacy of warnings where the expert failed to propose any suitable alternative. *See Bourelle v. Crown Equip. Corp.*, 220 F.3d 532, 539 (7th Cir. 2000); *Jaurequi v. Carter Mfg. Co., Inc.*, 173 F.3d 1076, 1084 (8th Cir. 1999). Even though Dr. Parisian has not actually drafted an alternate warning for Aredia® and Zometa®, she did at least consider alternate language, and allegedly testified that she preferred the text originally proposed by the FDA. *See Georges*, Order at 14. At least two other transferor courts have held that this distinguishes her testimony from the expert witness testimony in *Bourelle* and *Jaurequi*. *Id.*; *Brown*, Mem. and Recommendation, at 14. This Court agrees that

Dr. Parisian may testify about the adequacy of NPC's warning labels for Aredia® and Zometa®.

4. Other Testimony

NPC also asks the Court to exclude Dr. Parisian's testimony concerning medical causation, corporate intent and motive, compliance with non-FDA industry standards, monitoring of clinical trials, and ghostwriting of publications. Plaintiffs, however, indicate that they do not plan to elicit any such testimony. Therefore, the Court need not address these issues at this time.

Finally, NPC summarily asks the Court to exclude, as irrelevant, confusing and unfairly prejudicial, Dr. Parisian's: (1) criticism of the FDA and the pharmaceutical industry unless it is related to Aredia®, Zometa®, and ONJ; (2) testimony regarding drugs other than Aredia® and Zometa® and injuries other than ONJ; and (3) events that occurred after Plaintiffs developed ONJ. The Court agrees with Plaintiffs that NPC has failed to provide sufficient detail about any of this proposed testimony to allow the Court to rule on its admissibility at this time. The Court therefore overrules NPC's motion without prejudice to renewing the objections at trial, where they can be considered in the appropriate context.

D. Professor Wayne Ray

Wayne Ray is an epidemiologist, and Professor of Preventative Medicine and Director of the Division of Pharmacoepidemiology at Vanderbilt University School of Medicine. He has published numerous articles, most concerning the adverse and beneficial effects of medications. He was hired by Plaintiffs to address the

question of general causation, *i.e.*, whether Aredia® and Zometa® cause ONJ. He admits that there are no controlled studies that establish a statistically significant association between the use of bisphosphonate drugs and ONJ. 2/21/09 Ray Dep. at 425-26 (Ex.1 to Doc. #33 in Case No. 3:cv-145). His opinion on general causation is therefore based on a meta-analysis, combining information he extracted from several observational studies.

In his report, he concludes that IV bisphosphonate drugs cause ONJ, and the longer the drugs are used, the greater the risk of developing such. He further opines that because there was no other credible explanation, NPC should have known of the causal connection as early as 2003. Ex. 2 to Doc. #33 in Case No. 3:12-cv-145. NPC seeks to exclude Professor Ray's expert witness testimony on several grounds.

1. Qualifications to Perform Meta-analysis

According to NPC, Professor Ray is not qualified to perform a meta-analysis because he has never published a meta-analysis in a peer-reviewed journal, and lacks the requisite medical expertise to understand other possible causes of ONJ. NPC further notes that Professor Ray failed to consult with any other doctors or clinicians in reaching his conclusions.

These same arguments have been repeatedly rejected by other transferor courts. *See, e.g.*, *Deutsch*, 768 F. Supp.2d at 454-55; *Bessemer v. Novartis Pharm. Corp.*, No. MID-L-1835-08, Mem. of Decision, at 6-8 (N.J. Super. Ct., April 30, 2010) (Ex. 2 to Doc. #46 in Case No. 3:12-cv-145). As the court noted in

Deutsch, Professor Ray may not have published a meta-analysis, but he has used this method of analysis on numerous occasions and has significant experience as a pharmacoepidemiologist in analyzing research studies on the adverse effects of medication. Moreover, although he usually collaborates with others when conducting *original* research, that is not a standard practice when analyzing studies conducted by others. 768 F. Supp.2d at 455. Based on the reasoning in *Deutsch*, this Court also finds that Professor Ray is qualified to perform a meta-analysis.

2. Challenges to Methodology

NPC next challenges the reliability of several methodologies used by Professor Ray, particularly in connection with Tables 5 and 6 of his Revised Report, Ex. 11 to Doc. #33 in Case No. 3:12-cv-145.

In Table 5, Professor Ray compared the incidence rate of ONJ in IV bisphosphonate users who took the drugs for less than three months with those who took the drugs for more than three months. NPC argues that there is no scientific basis for this cut point. Professor Ray cites, however, to an article discussing guidelines for dental procedures for patients beginning IV bisphosphonate therapy. That article states that patients who have received less than three months of bisphosphonate therapy may be treated the same as those who have had no therapy. 2/20/09 Ray Dep. at 144-45 (Ex. 7 to Doc. #33 in Case No. 3:12-cv-145). Moreover, as Professor Ray explained in his report, this time period "is long enough to provide sufficient person-time to estimate a relative risk denominator, but short enough to limit the chronic effects of bisphosphonate use

on risk of osteonecrosis of the jaw." Revised Report at 23. The Court finds that Professor Ray has adequately justified the three-month cut point. *See Deutsch*, 768 F. Supp.2d at 455-56.

NPC also argues that, because Professor Ray subjectively excluded 12 of the 26 observational studies he collected, and specifically excluded randomized, controlled studies, his conclusions fail to adequately account for confounding causes such as tooth extractions, thereby overstating the risk of developing ONJ from Aredia® or Zometa®. Ray explained, however, that he could determine the relative risk without controlling for these alternate factors, because there is no evidence that these factors cause ONJ in the absence of bisphosphonate use. Revised Report, at 30-33. The Court finds that Professor Ray has satisfied his burden under *Daubert.* Any objections concerning his failure to adequately account for confounding causes goes to the weight of his testimony, not its admissibility. *See Deutsch*, 768 F. Supp.2d at 456-57.

As shown in Table 6 of his Revised Report, Professor Ray also opines that Zometa® poses a higher risk than Aredia®. NPC argues that this opinion is flawed. Although Ray concludes that duration of therapy is associated with increased risk, Table 6 fails to account for such. He simply assumes that, since Aredia® has been on the market longer than Zometa®, patients taking Zometa® are likely to have a shorter duration of therapy. He fails to point to anything to support this assumption, and he admitted at his deposition that if his assumption is wrong, then the analysis reflected in Table 6 would be inaccurate. 2/20/09 Ray Dep. at 313.

On this basis, at least three other transferor courts have excluded his opinion that Zometa® poses a higher risk than Aredia®. *See Deutsch*, 768 F. Supp. 2d at 458; *Mahaney v. Novartis Pharm. Corp.*, No. 1:06-cv-35, Mem. Op. & Order, at 21-22 (W.D. Ky. Sept. 9, 2011) (Ex. 15 to Doc. #33 in Case No. 3:12-cv-145); *Winter,* Order at 15-16. This Court finds the reasoning set forth in those opinions to be persuasive. Accordingly, the Court excludes Professor Ray's testimony on this topic.

3. Admissibility of Other Causation-Related Opinions

NPC next argues that because Professor Ray's meta-analysis is flawed and inadmissible, his derivative causation opinions, including his Bradford-Hill analysis, must be excluded as well. A Bradford-Hill analysis is a set of criteria used to evaluate "a purported causal link between a chemical agent and a particular disease." *Castellow v. Chevron USA*, 97 F. Supp.2d 780, 786 (S.D. Texas 2000). Unless there is a statistically significant association between the drug and the disease, the Bradford-Hill analysis to determine causation is inapplicable. *Soldo v. Sandoz Pharm. Corp.*, 244 F. Supp.2d 434, 569 (W.D. Pa. 2003). NPC argues that because the alleged association is based on the flawed meta-analysis, the Bradford-Hill analysis is unreliable. Because the Court has found that the underlying meta-analysis is reliable and admissible, the Court rejects this argument.

NPC also argues that Professor Ray's causation opinions should be excluded because they are based, in part, on anecdotal "adverse event" case reports that he admittedly never reviewed. 2/27/10 Ray Dep. at 197 (Ex. 8 to Doc. #33 in Case

No. 3:12-cv-145). NPC maintains that such case reports are flawed in that they "reflect only reported data, not scientific methodology." *Rider v. Sandoz Pharm. Corp.*, 295 F.3d 1194, 1199 (11th Cir. 2002). Professor Ray's reliance on these case reports does not require exclusion of his testimony. As one court noted, "Professor Ray is not relying on the truth of what is contained in these reports, but rather the significance of the increase in the reports absent any alternative explanation." *Deutsch*, 768 F. Supp.2d at 458.

NPC next urges the Court to exclude Professor Ray's testimony that it is biologically plausible that IV bisphosphonate drugs increase the risk of ONJ. NPC argues that he lacks the medical expertise to address this issue. It also notes that he admitted that the precise mechanism by which bisphosphonate drugs cause ONJ is not yet understood. Revised Report at 38. Professor Ray offers this opinion, however, not as a medical expert, but rather in the context of his epidemiologic assessment of causation. Because "biological plausibility is directly linked to the Bradford-Hill criterion," *Winter*, Order at 18, and Professor Ray is qualified to perform that causation analysis, his opinion on biological plausibility is admissible. Moreover, his hypothesis has strong support in medical literature. *See Deutsch*, 768 F. Supp.2d at 459-60.

NPC also seeks to exclude Professor Ray's opinion that NPC should have known in 2003 that Aredia® and Zometa® cause ONJ. It argues that, at that time, there were no published studies showing a causal relationship. The one publication that explored the topic, written by Dr. Robert Marx, acknowledged that "no

definite cause and effect relationship has yet been established."[4] NPC notes that at least two transferor courts have excluded Professor Ray's opinion on this topic. In *Hogan v. Novartis Pharm. Corp.*, No. 06 Civ. 0260, 2011 WL 1533467, at *8 (E.D.N.Y. Apr. 24, 2011), the court characterized his testimony as more of a closing argument than a scientific conclusion. *See also Mahaney*, Op. at 23 (Ex. 15 to Doc. #33 in Case No. 3:12-cv-145).

Other courts, however, have allowed Professor Ray to testify that NPC could have known of the causal relationship in 2003. *See Winter*, Order at 18 ("the fact that causation has not been definitely established does not prevent experts from opining on the likelihood of causation"); *Deutsch*, 768 F. Supp.2d at 459 (finding that objections to Professor Ray's opinion on this topic went to weight rather than admissibility). Having already admitted Professor Ray's causation opinions based on case reports, and in light of the "liberal standard of admissibility," *Deutsch*, 768 F. Supp.2d at 459, the Court will permit Professor Ray to offer his opinion on when NPC could have concluded that there was a causal relationship between bisphosphonate drugs and ONJ. NPC may explore the allegedly flawed basis for his opinion on cross-examination.

Finally, NPC urges the Court to exclude Professor Ray's testimony that approximately 5% of IV bisphosphonate patients develop ONJ. He conceded that definitions of ONJ may vary, and that the actual rate could be lower. 2/27/10 Ray

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[4] Robert Marx, *Letters to the Editor: Pamidronate (Aredia) and Zoledronate (Zometa) Induced Avascular Necrosis of the Jaws: A Growing Epidemic*, 61 J. Oral Maxillofacial Surg. 1115, 1116. Ex. 18 to Doc. #33 in Case No. 3:12-cv-145.

Dep. at 171. However, because Professor Ray's opinion concerning the incidence rate is supported by the medical literature, the Court finds that it is admissible. Again, NPC's objections go to the weight of the testimony rather than its admissibility.

In a similar vein, NPC seeks to exclude his testimony that ONJ is "not rare" among IV bisphosphonate patients. It argues that the word "rare" is too subjective. NPC notes that the courts in *Deutsch*, 768 F. Supp.2d at 459, and *Brodie*, Order at 4, excluded Professor Ray's testimony on this basis. The Court agrees that Professor Ray's characterization of the frequency with which ONJ occurs among these patients is inadmissible. He may testify as to the actual occurrence rate, but the jury will have to draw its own conclusion about how "rare" it is for bisphosphonate drug users to develop ONJ.

E. Dr. Robert Marx

Dr. Robert Marx is an oral and maxillofacial surgeon, and Chief of the Division of Oral and Maxillofacial Surgery at the University of Miami School of Medicine. He has conducted extensive research concerning the connection between the use of bisphosphonates and ONJ, and has published on this topic. He is also widely regarded as the individual primarily responsible for bringing this issue to the attention of the medical community.

NPC objects to Dr. Marx: (1) testifying that dental treatment measures prevent ONJ; (2) presenting his personal opinion that NPC engaged in bad faith conduct; (3) criticizing the clinical trials; (4) speculating that certain patients in the

clinical trials had bisphosphonate-induced ONJ; (5) presenting a general causation opinion based on adverse event reports he has not reviewed; and (6) testifying about the biological mechanism by which bisphosphonates allegedly caused ONJ.

As Plaintiffs note, the MDL Court already denied a substantially identical motion seeking to exclude Dr. Marx's litigation-wide testimony in connection with a different "wave" of cases. Ex. 1 to Doc. #41 in Case No. 3:12-cv-145. NPC sought to exclude Dr. Marx's testimony on the causal connection between bisphosphonate drugs and ONJ; treatment and preventative measures for ONJ; alleged "bad faith" conduct by NPC; whether certain patients in the clinical trials for Aredia® and Zometa® had bisphosphonate-induced ONJ; and criticisms of the clinical trials. *Id.* To the extent that the MDL Court ruled on these issues, this constitutes the law of the case. It found that Dr. Marx's testimony was admissible under *Daubert* but, for summary judgment purposes in those cases, it did not need to consider his opinions concerning: (1) NPC's alleged bad faith conduct; or (2) the clinical trials. It, therefore, did not rule on the admissibility of those particular opinions. *Id.*

1. Preventative Measures/Avoiding Invasive Procedures

NPC first argues that Dr. Marx's testimony concerning the benefits of obtaining a dental examination before taking Aredia® or Zometa®, and of avoiding oral surgery while taking these drugs, should be excluded. Marx Report ¶¶52-55 (Ex. 3 to Doc. #35 in Case No. 3:12-cv-145). NPC maintains that Dr. Marx has no scientifically reliable basis for his opinion that pretreatment examinations may help

prevent ONJ. As Plaintiffs note, the MDL Court has already ruled that Dr. Marx's opinion on this issue is admissible. That ruling will not be revisited.

NPC also argues, however, that Dr. Marx's testimony, concerning the benefits of pretreatment screening and avoiding invasive dental procedures, should be excluded as irrelevant because it does not "fit" the facts of Plaintiffs' cases. As discussed above in Section III(A)(2), the Court finds that testimony concerning the benefits of pretreatment dental screening is relevant and admissible in the *Sheffer* case, but not the *Bowles* case, and testimony concerning avoiding invasive dental procedures is relevant and admissible in the *Bowles* case, but not the *Sheffer* case.

2. Bad Faith Conduct

NPC next argues that Dr. Marx's opinion, that NPC acted in bad faith in responding to the initial reports of ONJ in individuals treated with Aredia®, Marx Report ¶47, exceeds the scope of proper expert testimony. NPC notes that several transferor courts have excluded Dr. Marx's testimony on the question of NPC's corporate intent or state of mind. *See, e.g., Deutsch*, 768 F. Supp.2d at 448; *Bessemer*, Mem. of Decision at 3.

Plaintiffs, however, do not intend to offer Dr. Marx's opinions on NPC's corporate intent or state of mind. Rather, they intend to elicit factual testimony about his personal dealings with NPC. After Dr. Marx approached NPC about a possible causal relationship between its bisphosphonate drugs and ONJ, NPC asked him to serve on an advisory board. Dr. Marx maintains that NPC ignored the recommendations of the advisory board. As the court held in *Deutsch*, although

Dr. Marx may not offer a legal conclusion as to whether NPC acted in bad faith, he may testify "as a fact witness about his experiences working with Novartis and Novartis employees . . . It is for the jury to decide whether Dr. Marx's experiences imply that Novartis was acting in bad faith." 768 F. Supp.2d at 448.

3. Clinical Trial Criticisms

NPC also seeks to exclude Dr. Marx's testimony criticizing the methods used for conducting the clinical trials for Aredia® and Zometa®. NPC claims that Dr. Marx, who has never planned or managed any clinical trials relating to bisphosphonates, lacks the expertise to offer an expert opinion on this subject. It also claims that his criticisms are the product of hindsight bias and not based on a scientifically reliable methodology.

The Court agrees that Dr. Marx may comment about the fact that records of the clinical trials do not indicate that dental specialists were consulted, or that certain examinations were performed, but he cannot testify that this rendered the clinical trials defective in design. *See Mahaney*, Mem. Op. & Order, at 32 (holding that Dr. Marx "may not opine on the overall adequacy of the clinical trials or whether certain measures not a part of the trials were necessary for a full and thorough review"); *Deutsch*, 768 F. Supp.2d at 450 ("he is simply not qualified to opine on the adequacy of the clinical trials"); *Winter*, Order at 11 (excluding testimony on the overall adequacy of the clinical trials, but allowing "testimony regarding the lack of records . . . to the extent necessary for Dr. Marx to explain

his opinion on whether the clinical trials included patients with [ONJ]"); *Hogan*, 2011 WL 1533467, at *6 (same).

4. Occurrence of ONJ in Clinical Trial Patients

Next, NPC seeks to exclude Dr. Marx's post-hoc diagnosis that five patients in the clinical trials developed bisphosphonate-induced ONJ. Marx Rebuttal Report ¶¶14-19 (Ex. 4 to Doc. #35 in Case No. 3:12-cv-145). It appears that this testimony falls under the umbrella of testimony deemed admissible by the MDL Court, but even if that is not true, this Court finds it to be admissible in any event.

NPC argues that Dr. Marx's opinion should be excluded because he has testified that exposed jawbone lasting longer than eight weeks is a key component of ONJ, 5/26/09 Marx Dep. at 1358 (Ex. 2 to Doc. #35 in Case No. 3:12-cv-145), and none of the patients at issue had exposed bone consistent with this definition. As the court noted in *Deutsch*, however, at the time the clinical trials were conducted, there was no working definition of bisphosphonate-induced ONJ.

> [B]ecause exposed bone was not yet known to be a relevant indicator of BRONJ, the records would not necessarily reflect the presence or absence of exposed bone. Given these limitations, it was reasonable for Dr. Marx not only to consider whether exposed bone was noted on the chart, but also to look to other circumstantial evidence of BRONJ. Given that exposed bone may have been present but not recorded, it would be unfair to permit Novartis' experts to use the absence of a reference to exposed bone to conclude BRONJ was not present, and then preclude the Plaintiffs from showing that the records contain other indicia of BRONJ that make it likely exposed bone was present, but not recorded.

Deutsch, 768 F. Supp.2d at 449.

Because this Court finds that reasoning persuasive, Dr. Marx will be permitted to offer his opinion about whether individuals in the clinical trials had bisphosphonate-induced ONJ.

5. General Causation Based on Adverse Event Reports

NPC also seeks to exclude Dr. Marx's opinion on general causation because it is based, in part, on adverse event reports, submitted to the FDA or to NPC that he has never read. NPC maintains that such anecdotal evidence does not constitute scientifically reliable proof of general causation. Again, the MDL Court has already ruled on this litigation-wide issue, and this Court will not disturb that ruling since it is the law of the case. Dr. Marx may testify about general causation. NPC is, of course, free to cross-examine him concerning the bases for his opinion.

6. Biological Mechanism

Finally, NPC argues that Dr. Marx should not be permitted to testify about the biological mechanism by which bisphosphonate drugs allegedly cause ONJ. His hypothesis is that bisphosphonate drugs impair and kill osteoclasts, leading to oversuppression of bone remodeling, which occurs in the jaw at a higher rate. Marx Report ¶¶19-21. NPC argues that he is not qualified to testify on this topic, and that his opinion is unreliable because it is based on a study of fetal mouse cells instead of human cells.

The Court finds that, in admitting Dr. Marx's testimony on general causation, the MDL Court impliedly held that he could offer his opinion on this

topic. *See Deutsch*, 768 F. Supp.2d at 438 ("Insofar as this was not among the topics explicitly excluded from the MDL court's opinion, the admissibility of Dr. Marx's opinion on this subject is the law of the case"); *Mahaney*, Mem. Op. & Order, at 33. In addition, this Court finds that Dr. Marx is qualified to offer his opinion on this topic, by virtue of his extensive knowledge, experience and research concerning the relationship between bisphosphonates and ONJ. Again, NPC is free to challenge the bases for his hypothesis on cross-examination, or to offer alternative theories.

IV. Conclusion

For the reasons set forth above, the Court SUSTAINS IN PART and OVERRULES IN PART each of the following:

- Defendant's Motions to Exclude Testimony of Plaintiff's Expert Dr. Keith Skubitz (Doc. #30 in Case No. 3:12-cv-145, and Doc. #31 in Case No. 3:12-cv-238);
- Defendant's Motions to Exclude Testimony of Plaintiff's Expert Dr. James Vogel (Doc. #31 in Case No. 3:12-cv-145, and Doc. #33 in Case No. 3:12-cv-238);
- Defendant's Motions to Exclude Testimony of Plaintiff's Expert Dr. Suzanne Parisian (Doc. #32 in Case No. 3:12-cv-145, and Doc. #34 in Case No. 3:12-cv-238);
- Defendant's Motions to Exclude Testimony of Plaintiff's Expert Professor Wayne Ray (Doc. #33 in Case No. 3:12-cv-145, and Doc. #35 in Case No. 3:12-cv-238); and
- Defendant's Motion to Exclude Testimony of Plaintiff's Expert Dr. Robert Marx (Doc. #35 in Case No. 3:12-cv-145, and Doc. #36 in Case No. 3:12-cv-238).

More specifically, Plaintiffs' expert witness testimony is limited as follows:

A. Dr. Keith Skubitz may not testify about alternative dosing schedules. He may testify about the benefits of pretreatment dental screening in the *Sheffer* case, but not in the *Bowles* case. He may testify about the benefits of avoiding invasive dental procedures in the *Bowles* case, but not in the *Sheffer* case. He may also testify about the content of the drug labels, and the inclusion of the incidence rate on the drug labels.

B. Dr. James Vogel may not testify about NPC's motive, intent, or corporate state of mind, but may offer his opinion that the drug labels are false, misleading, or lack critical information. He may offer his opinion on the benefits of pretreatment dental screening in the *Sheffer* case, but not in the *Bowles* case. He may testify about the incidence rate of ONJ and the mechanism of action, but cannot testify about alternative dosing schedules.

C. Dr. Suzanne Parisian may testify about FDA regulatory requirements related to prescription drugs, and about the adequacy of the warning labels. She will not be permitted to testify about regulatory causation.

D. Professor Wayne Ray may testify about general causation. He may also testify that it is biologically plausible that IV bisphosphonate drugs increase the risk of ONJ, but may not testify that Zometa® poses a higher risk than Aredia®. He may also testify about when NPC should have known of the causal relationship. Although he may testify about the incidence rate of ONJ, he may not characterize ONJ as "not rare."

E. Dr. Robert Marx may testify about the benefits of pretreatment dental screening in the *Sheffer* case, but not in the *Bowles* case. He may testify about the benefits of avoiding invasive dental procedures in the *Bowles* case, but not in the *Sheffer* case. He may also testify about his experience on NPC's advisory board, but may not testify about corporate state of mind or intent. He may comment about records of the clinical trials, and may testify that certain individuals in the clinical trials developed ONJ. However, he may not offer an opinion about the overall adequacy of the clinical trials. He will be permitted to testify about general causation and the biological mechanism by which bisphosphonate drugs allegedly cause ONJ.

Date: September 20, 2013

WALTER H. RICE
UNITED STATES DISTRICT JUDGE