UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

CELGENE CORPORATION, Plaintiff, -v- HETERO LABS LIMITED; HETERO LABS LIMITED UNIT-V; HETERO DRUGS LIMITED; HETERO USA, INC.; AUROBINDO PHARMA LIMITED; AUROBINDO PHARMA USA, INC.; AUROLIFE PHARMA LLC; EUGIA PHARMA SPECIALTIES LIMITED; APOTEX INC.; APOTEX CORP.; MYLAN PHARMACEUTICALS, INC.; MYLAN INC.; MYLAN, N.V.; BRECKENRIDGE PHARMACEUTICAL, INC.; TEVA PHARMACEUTICALS USA, INC., Defendants.	:	Civ. Action No. 17-3387 (ES)(MAH) CONSOLIDATED WITH: 17-3159 (ES)(MAH) 18-13715 (ES)(MAH) 19-143 (ES)(MAH) 18-16035 (ES)(MAH) 18-14111 (ES)(MAH) 18-14366 (ES)(MAH) 18-16395 (ES)(MAH) **SPECIAL DISCOVERY MASTER ORDER NO. 15: REPORT & RECOMMENDATION ON PLAINTIFF'S MOTIONS TO STRIKE**

The Court has requested that the Special Discovery Master enter a Report & Recommendation ruling on plaintiff Celgene's motions to strike (1) portions of Defendants' Method of Treatment ("MoT") expert reports (ECF No. 723), and (2) portions of the expert report of Dr. Kinam Park ("Park report") (ECF No. 738). In Special Discovery Master Order No. 14 (ECF No. 821), the Special Master set out a multi-step procedure for resolving the issues set out in Celgene's motions.

Pursuant to this procedure, the Special Master held a hearing with the parties via the Zoom platform on January 27, 2021. The Defendants and Celgene presented their respective positions on whether or not the prior art references and report sections at issue, which had not been identified in the Defendants' invalidity contentions, required amendment pursuant to the Local Patent Rules. Having considered the parties' positions and relevant authority, the Special Discovery Master makes the following rulings with respect to the objected-to references and paragraphs of the expert reports.

As will be discussed in detail below, Defendants will not be required to amend their invalidity contentions for certain specified newly-added references that are cited in an expert's report as support for solely "background" or "foundational" purposes. *See Genentech, Inc. v. Trustees of University of Pennsylvania*, No. C 10-2037 LHK (PSG), 2012 WL 424985 at *3 (N.D. Cal. Feb. 8, 2012) (holding that "background" references can appropriately be used "for

laying a historical foundation to research that was disclosed."); *Allergan v. Teva Pharms. USA, Inc.*, No. 1501455, 2017 U.S. Dist. LEXIS 225041 at *24 (E.D. Tex. Aug 3, 2017) (explaining that "background references can be used "in sections of [an expert's]report describing treatment options that were available at the time of the invention."); *iFly Holdings LLC v. Indoor Skydiving Germany GmbH*, No. 2:14-cv-01080-JRG-RSP, 2016 WLL 3680064 at *2 (E.D. Tex. Mar. 24, 2016) ("[Rule 3.3] does not apply when a reference is being used by an expert solely to explain the technology.")

By contrast, a motion to amend will be required when a reference is specifically directed toward the obviousness of the claim limitations and would serve as support, in an obviousness analysis, for the limitation, regardless of whether that piece of prior art is described as "background" or "foundational." *See, e.g., Allergan,* 2017 U.S. Dist. LEXIS 225041 at *27-28; *see also Fujifilm Corp. v. Motorola Mobility LLC*, No. 12-3587, 2015 WL 757575 at *30 (N.D. Cal. Feb 20, 2015) (granting, in part, motion to strike "to the extent th[e] references are used as anticipation and/or obviousness references," but not barring the references if "used merely as background material.") "Clever labels" won't be allowed to do an end run around the Local Patent Rules. *Pavo Sols. LLC, Kingston Tech. Co*., No. 8:14-cv-01352-JLS-KES, 2019 WL 8138163 at *11 (C.D. Cal. Nov. 20, 2019) (noting that "the Court must look past [Defendant's] labeling and analyze whether that which [expert] terms 'background' is really being used as 'invalidating prior art,'" and cautioning against "attempt[s], through clever labeling, to end run the Patent Local Rules and their requirement that prior art be disclosed in the invalidity contentions.")

Defendants will also be required to amend their contentions to the extent an expert report sets out a new theory of invalidity not previously set out in Defendants' invalidity contentions. "The [Local Patent Rules] are designed to require parties to crystallize their theories of the case early in the litigation and to adhere to those theories once they have been disclosed." *Verinata Health, Inc. v, Sequenom, Inc.,* No. 12-00865, 2014 WL 4100638 at *1 (N.D. Cal. Aug. 20, 2014). "Given the purpose behind the patent local rules' disclosure requirements, 'a party may not use an expert report to introduce new infringement theories, new infringing instrumentalities, new invalidity theories, or new prior art references not disclosed in the parties' infringement contentions or invalidity contentions.'" *Id*. at *3 (quoting *Asus Computer Int'l v. Round Rock Research*, LLC, No. 12–cv–02099 JST (NC), 2014 U.S. Dist. LEXIS 50728, at *5 (N.D. Cal. Apr. 11, 2014)).

And an amendment of the invalidity contentions will also be required to add any newly asserted prior art combinations. New Jersey Local Patent Rule 3.3(b) specifically requires that "[i]f obviousness is alleged," the invalidity contentions must provide "an explanation of why the prior art renders the asserted claims obvious, ***including an identification of any combinations*** of prior art showing obviousness."

The Special Discovery Master will apply the overarching question 'will striking the report [portion or reference] result in not just a trial, but an overall litigation, that is more fair, or less?'" to the analysis of the objected-to content of the expert reports. *Verinata*, 2014 WL 4100638 at *3. If a theory was previously sufficiently disclosed by Defendants, and new prior art is used to supplement that theory by adding supplemental motivations to combine or

complementary proof, no amendment will be required. *See Fujifilm,* 2015 WL 757575 at *31 (noting "that where obviousness is asserted, the invalidity contentions must contain 'an explanation of why the prior art renders the asserted claim obvious, including an identification of any combinations of prior art showing obviousness,'" but adding that "[w]hile this language requires the disclosure of some explanation of obviousness, it does not require that the explanation include motivations to combine."); *Genentech,* , 2012 WL 424985 at *2 (noting that courts have "look[ed] to the nature and scope of the theory of invalidity disclosed and whether the challenged report section merely provides an evidentiary example or complementary proof in support thereof, or itself advances a new or alternative means [for finding] the claims at issue invalid.")

And it is always wise to keep in mind the cautionary instruction stated in Order No. 14: "While Local Patent Rule 3.3(b) does not require that invalidity contentions disclose each and every piece of evidence that may be used in an invalidity expert's report," a party cannot "add contentions or prior art disclosures late, as a strategic ploy, because the local patent rules in this District were intended to curb this type of gamesmanship." (ECF No. 821 at 9.)

1. The Challenged Prior Art References in the Tricot Report

Dr. Guido Tricot submitted a 34-page opening expert report ("Tricot Report") on behalf of Defendants. (ECF No. 723, Ex. B.). Celgene argues that the Tricot Report relies on 10 new alleged prior art references that were not previously disclosed in Defendants' invalidity contentions, and that these references and the paragraphs that cite them should therefore be stricken from the Tricot Report. (*See* ECF No. 723 at 5; Ex. C at 2.) According to Celgene, the new prior art references violate Local Patent Rule 3.3(a)-(b). Celgene contends that Rule 3.3 (a)-(b) requires Defendants to state in their invalidity contentions "[t]he ***identity of each item of prior art*** that allegedly anticipates each asserted claim or renders it obvious," and "***an explanation of why*** the prior art renders the asserted claim obvious." (ECF No. 723 at 5.) (emphasis from Celgene's briefing.) Defendants' contentions did not previously disclose these 10 references, and thus Celgene asserts that the reliance on them by Dr. Tricot should be stricken.

Defendants respond that Celgene's arguments regarding the Tricot Report are based on a flawed interpretation of Local Patent Rule 3.3. Defendants contend that the scope of the disclosure required by Local Patent Rule 3.3 does not require disclosure of references solely used for background, motivation to combine and/or reasonable expectation of success (*Id*. at 2-4), and that Dr. Tricot's reliance on the previously undisclosed prior art references was allegedly solely to provide background information. (ECF No. 739 at 3.) Defendants criticize Celgene's interpretation of Local Patent Rule 3.3(a) and (b) as requiring the identification of every single prior art reference that might be used as an exhibit at trial, and argue that there is no support for this assertion in the express language of the Rule. (*Id*. at 3-4.)

Defendants also contend that the Tricot Report does not assert any new theory of obviousness, and in fact, does not even opine on the issue of obviousness of the Method of Treatment ("MoT") patents. (*Id*. at 3.) According to Defendants, the Tricot Report simply

provides a history of pomalidomide, so that at trial, Defendants can ask Dr. Tricot to educate the Court on that factual background. (*Id*. at 3.) Defendants concede that the Tricot Report "include[s] documents not identified in Defendants' [infringement contentions]," but argue that this does not automatically mean that they should be stricken if they are simply background information for the Court. (*Id*. at 3.)

The previously undisclosed prior art references set forth in Dr. Tricot's report will be discussed individually, applying the above-referenced standards, to determine whether the prior art reference can be used without amendment to the invalidity contentions, or whether a motion to amend must be made.

a. *Previously Undisclosed Tricot Report References*:

The Tricot Report discusses 10 prior-art references that were not previously disclosed in Defendants' invalidity contentions. The Special Discovery Master addresses each of these new references in turn:

i. The *Anderson* Reference

The "Anderson reference"[1] is cited in six paragraphs of the Tricot report – paragraphs 26, 28, 33, 34, 40 and 41 – and is a chapter in the book "Cancer Medicine" titled "Plasma Cell Tumors." (*See* ECF No. 723, Ex. C at 2, Reference No. 1.) This reference is used for multiple purposes and each will be addressed separately.

- Anderson Used for Historical Background on Multiple Myeloma

Dr. Tricot first cites this reference to support statements such as "[b]y 2002, multiple myeloma was well characterized and well understood by physicians" (¶26), and that in 1999, myeloma was "the second most common hematologic malignancy and [was] estimated to account for 13,700 new cancer cases" (¶28). (ECF No. 723, Ex. B at ¶¶26, 28.)

These uses of the previously-undisclosed Anderson reference are permitted under the Local Patent Rules as "background" or "foundational" materials. Background references can appropriately be used "for laying a historical foundation to research that was disclosed." *Genentech, Inc. v. Trustees of University of Pennsylvania*, 2012 WL 424985 at *3 (N.D. Cal. Feb. 8, 2012). That is the purpose of the Anderson reference in paragraphs 26 and 28, and it will be permitted without amendment.

- Anderson Used for the Distinction between Exogenous and Endogenous IL-6

Dr. Tricot also uses the Anderson reference to support statements such as "Anderson also teaches that there are multiple sources of IL-6," that "bone marrow stromal cells ("BMSCs") are the primary exogenous source of IL-6 and highlight the importance of this exogenous IL-6 on the

[1] Anderson, K.C., "Plasma Cell Tumors," *Holland & Frei Cancer Medicine*, 5 (B.C. Decker Inc.), Ch. 132 (2000). (See ECF No. 723, Ex. B at ¶26.)

proliferation of multiple myeloma cells," after which Tricot draws the conclusion: "Thus, multiple myeloma cells were understood to have two sources of IL-6, one being produced endogenously within the multiple myeloma cell, and the other, produced exogenously, primarily by BMSCs." (ECF No. 723, Ex. B at ¶33; *see also* ¶34.)

At the hearing before the Special Master, Celgene explained that in their invalidity contentions, Defendants alleged that "a POSA would have targeted IL-6," which "would have led to the combination of dexamethasone" and a thalidomide analog. (Hrg. Tr. 34:24-35:35:7; *see also* 37:1-10 (Defendants described their contentions as follows: "The contention was that it was known in the art that IL-6 had a relationship with proliferation of multiple myeloma cells and that dexamethasone was effective at – at basically inhibiting the growth of multiple myeloma cells. So we relied on it as sort of motivation to combine a thalidomide analog and dexamethasone.")) In Celgene's April 2018 response to Defendants' invalidity contentions, Celgene wrote that this alleged reason to combine would not have existed at the time of the invention because the prior art on the effects of dexamethasone on IL-6 was inconsistent, contradictory and confusing to the person of skill in the art. (Hrg. Tr. 34:24-35:35:7.)

Celgene argues that it then wasn't until the Tricot report, submitted approximately two years later, that Defendants introduced their new theory explaining the obviousness of the prior art combinations, namely "the distinction between exogenous and endogenous IL-6 and how dexamethasone affects that and how the IL-6 affects dexamethasone." (Hrg. Tr. 32:1-4.) Defendants now respond:

> [T]he issue of IL-6 was raised in the contentions, and then [Celgene] responded to it . . . with an argument that the data on IL-6 was too confusing to be real motivation. And our expert said it's not confusing, it's very readily explained. When you look at the experiments that are outlined in Anderson, you can explain them as whether the IL-6 is an in-vitro experiment, not in the body, or IL-6 is exogenous, and that's different than in the body when you're treating multiple myeloma. So in short, Anderson is really a response by an expert to defeat the issue or explain our point about a theory and issue that was well described up front.

(Hrg. Tr. at 48:11-25.)

The Special Discovery Master finds that the Anderson reference may not be used in the Tricot report to establish a distinction between exogenous and endogenous IL-6 without amendment of Defendants' invalidity contentions.[2] Using Anderson to rebut a potential argument by Celgene that the IL-6 prior art was confusing to the person of skill in the art is not factual background being used to educate the Court, which is Defendants' alleged purpose of the Tricot report. It is an introduction of an entirely new theory for why prior references would be combined, and does not merely build upon a previously disclosed theory. "[A] key consideration for the court is the timing of the disclosure in relation to when the opposing party would have needed the information in order to fairly conduct discovery or prepare a responsive

[2] If Defendants want to be able to rebut Celgene's expert report on this issue, it would be wise to seek to amend the invalidity contentions by meeting the standard for amendments.

strategy. . . . The goal of all this is to respect a party's legitimate need to refine its case and develop its positions while preventing litigation by ambush." *Genentech,* 2012 WL 424985 at *2. The distinction between exogenous and endogenous IL-6 is a new theory for the combination, which could have been developed via an amendment in the 2 years that have elapsed since the Celgene response to the invalidity contentions. Moreover, it certainly is not "background information." This stretches the scope of what is "background" a bridge too far.

This argument exemplifies the line blurring between a "background expert" and an "obviousness expert" that Defendants attempt to draw. At the hearing, Defendants' counsel admitted that no other expert opines on this new theory for combining a thalidomide analog and dexamethasone[3] – Dr. Tricot is in fact opining on factors that are part of the obviousness analysis. Thus, Defendants cannot simply ignore the non-disclosure of the prior art references relied upon by Dr. Tricot's expert report by affixing the label of "background material." Rather, courts deem it necessary to conduct a closer examination of the substance of his report's reliance on the undisclosed prior art references. *See, e.g., Life Technologies Corp. v. Bioresearch Technologies, Inc.*, No. 12-cv-00852-WHA, 2012 WL 4097740, at *1-2 (N.D. Cal. Sept. 17, 2012) (rejecting argument that references were admissible as background material, stating that "courts have rejected such attempts to elude patent local rules by defining material as 'background' or context,'" and explaining that "[n]otably lacking in defendants' opposition brief is any legal opinion or statute that differentiates between what defendants term 'background on the art' and 'prior art.'"); *Largan Precision Co., Ltd. v. Genius Elec. Optical Co.,* No. 13-2502, 2014 WL 6882275 (N.D. Cal. Dec. 5, 2014) (striking portions of expert report that were not "background," but were instead offered "as an example of a reference that teaches benefits of [a claim limitation] that would motivate modifying [the prior art] to include [that claim limitation]."); *Finjan, Inc. v. Sophos, Inc.*, No. 14-cv-01197-WHO, 2016 WL 2988834 at *12 (N.D. Cal. May 24, 2016) (noting that "the line between when a reference is used as background material, and when it is used as an anticipation or obviousness reference, can be difficult to draw."); *Pavo Sols. LLC, Kingston Tech. Co.*, No. 8:14-cv-01352-JLS-KES, 2019 WL 8138163 at *11 (C.D. Cal. Nov. 20, 2019) (noting that "the Court must look past [Defendant's] labeling and analyze whether that which [expert] terms 'background' is really being used as 'invalidating prior art,'" and cautioning against "attempt[s], through clever labeling, to end run the Patent Local Rules and their requirement that prior art be disclosed in the invalidity contentions.")

- Anderson Used for Teaching Specific Dose Intervals

Dr. Tricot also relies on the Anderson reference as teaching dose intervals and myelosuppression. (ECF No. 723, Ex. B at ¶¶40-41.) Specifically, the Tricot report provides that Anderson "taught, regarding myelosuppression and the treatment of multiple myeloma, that . . . [t]he dosage of melphalan [a chemotherapeutic agent], due to variability of absorption, should be modified if necessary, so that some reduction in leukocytes and platelets occurs 3 to 4 weeks after the beginning of each cycle." (ECF No. 723, Ex. B at ¶40.)

[3] Hrg. Tr. at 42:3-43:10.

Celgene argues that this reference is being used for the "21+7 dosing claim limitation"[4] of the asserted claims. (*See* ECF No. 723, Ex. C at 2, Reference No. 1.) Defendants respond that this use of Anderson is background to show that in the prior art, cancer drugs were used cyclically. (Hrg. Tr. 24:14-25:7.) In this instance, Tricot's use of Anderson amounts to "describing treatment options that were available at the time of the invention," and will be permitted as "background" for the use of cyclical dosing generally, but not for the purpose of showing a specific 3-week or 4-week cycle, because those specific cycle details of Anderson tread too closely to the dosing regimen in the claims of this case. *Allergan*, 2017 U.S. Dist. LEXIS 225041 at *24 (E.D. Tex. Aug. 3, 2017). If such a use were sought, then an amendment to the invalidity contentions would be required.

The use of Anderson for showing historical cyclic dosing is not prejudicial to Celgene because other references cited in the Tricot report for this purpose were previously disclosed in the invalidity contentions. For example, the Tricot report points to references from the invalidity contentions stating that prior to 2002, cancer studies and trials "utilize[ed] cyclic dosing with rest periods adjusted to the myelosuppressive effect of a given cytotoxic agent." (ECF No. 723, Ex. B at ¶43; *see also* ECF No. 723, Ex. D [Defendants' Invalidity Contentions] at pp. 120-124.) Importantly, the permitted use of Anderson is limited to the specific purposes of this reference stated in this Order. "[A]ny testimony that veers beyond those purposes will not be allowed; the parties can address the specifics as necessary," for example, "in motions in limine." *Simpson Strong-Tie Company, Inc. v. Oz-Post International, LLC*, 411 F.Supp.3d 975, 989 (N.D. Cal. 2019).

ii. The *Moosa* Reference

The "Moosa reference"[5] is cited in two paragraphs of the Tricot report – paragraphs 26 and 30 – and is a chapter titled "Management of Multiple Myeloma" in the "Comprehensive Textbook of Oncology." (*See* ECF No. 723, Ex. C at 2, Reference No. 2.)

- Moosa Used for Historical Background on Multiple Myeloma

The use of Moosa in paragraph 26 is identical to the use of Anderson in the same paragraph and will be permitted for the same reasons.[6] (ECF No. 723, Ex. B at ¶26.)

[4] For example, claim 1 of the '262 patent claims a method of treatment comprising administering pomalidomide "for 21 consecutive days followed by seven consecutive days of rest from administration of said compound in a 28 day cycle . . ."

[5] Schiffer, C.A., "Management of Multiple Myeloma," *Comprehensive Textbook of Oncology*, Vol. 1, 2d ed. (Moossa, et al. eds., Williams & Wilkins), Ch. 122 (1991). (ECF No. 723, Ex. B at ¶26.)

[6] Celgene counsel was laudably candid during the hearing, stating that: "if background's allowed in, Moosa is background. That's a good example of what a background reference is."

- Moosa Used for Complementary Motivation to Combine

In paragraph 30 of the Tricot report, Moosa is cited to support statements that "[c]orticosteroids were known to be useful in treating multiple myeloma due to their 'antitumor activity' and also their synergistic activity with cytotoxic agents," and that it was "known that a regimen of a chemotherapeutic agent co-administered with an immunosuppressive corticosteroid was better tolerated." (ECF No. 723, Ex. B at ¶30.) Celgene argues that this use of Moosa addresses "motivation for combination dosing claim elements" (ECF No. 723, Ex. C at 2, Reference No. 2) and is therefore required to be included in the contentions. The New Jersey Local Patent Rules require that "[i]f obviousness is alleged" as a basis for invalidity, the contentions must provide "an explanation of why the prior art renders the asserted claims obvious, including an identification of any combinations of prior art showing obviousness." Local Patent Rule 3.3(b).)

As stated earlier, the CAND Local Patent Rule on this issue is worded identically to the DNJ Local Patent Rule.[7] Addressing a similar issue in *Fujifilm*, the Court in CAND explained that under the prior version of its Patent Local Rule 3–3(b), the contentions would have been required to disclose any motivations to combine that the defendant intended to assert at trial, because the prior version of the rule explicitly required that "[i]f a combination of items of prior art makes a claim obvious, each such combination, and the motivation to combine such items, must be identified." 2015 WL 757575 at *31. However, the *Fujifilm* court noted that the rule was amended in 2008 and no longer requires "motivations to combine" to be set out in the contentions. Instead, the current version of the rule provides "that where obviousness is asserted, the invalidity contentions must contain 'an explanation of why the prior art renders the asserted claim obvious, including an identification of any combinations of prior art showing obviousness.'" *Id*. The court further found that "[w]hile this language requires the disclosure of some explanation of obviousness, it does not require that the explanation include motivations to combine." *Id*.

Other courts have found *Fujifilm* persuasive on this issue. *See, e.g., Slot Speaker Technologies, Inc. v. Apple*, 2017 WL 4354999 at *3 (N.D. Cal. Sept. 29, 2017) ("By its plain language, the Rule now only requires that a defendant's invalidity contentions include some explanation of why the prior art references render the plaintiff's asserted claims obvious," but "[i]t does not . . . dictate what information constitutes a sufficient explanation of obviousness.")

The *Fujifilm* court further reasoned that "motivations to combine remain relevant to the obviousness inquiry," but that the failure to include the "motivations" in the invalidity contentions does not mandate that they be struck from expert reports when not properly disclosed in invalidity contentions." *Fujifilm*. at 32. Instead, *"the relevant question is the usual one: 'whether the expert has permissibly specified the application of a disclosed theory or impermissibly substituted a new theory altogether." Id*. In *Fujifilm*, plaintiff did not argue that

[7] *See* D.N.J. Local Patent Rule 3.3(b) and N.D. Cal. Patent Local Rule 3.3(b). As discussed in Special Master Order No. 14, DNJ adopted the wording of this Patent Local Rule from CAND after the CAND version of rule 3.3(b) removed the requirement that the motivation to combine be identified. (*See* ECF No. 821 at 7.)

the undisclosed motivations to combine "constitute[d] new invalidity theories, as opposed to more specific articulations of previously disclosed ones." *Id*. at 31-31. The result would be different in situations where expert reports contained previously undisclosed explanations of why a person of ordinary skill in the art would be motivated to combine certain prior art references, where the explanation in such expert reports was significantly different from those that were previously disclosed.

Here, Moosa is not substituting a new theory of obviousness. Rather, it is being used as further support of Defendants' previously-disclosed invalidity allegations, such as that "the person of ordinary skill in the art would have understood that dexamethasone would have a synergistic effect with pomalidomide in the treatment of multiple myeloma." (ECF No. 723, Ex. D [Defendants' Invalidity Contentions] at pp. 126.) Moosa is also not being used to support any specific claim element of the claims at issue in this litigation.

Defendants may use the Moosa reference for the purposes described above and no amendment of the invalidity contentions is required. Defendants' use of Moosa may not veer beyond permissible purposes and the parties can address specific violations as necessary, for example, through motions *in limine*.

iii. The *Cohen* Reference

The "Cohen reference"[8] is cited in four paragraphs of the Tricot report – paragraphs 30, 32, 40 and 45 – and is a 1982 journal article titled "Hexamethylamine and prednisone in the treatment of refractory multiple myeloma." (*See* ECF No. 723, Ex. C at 2, Reference No. 3.)

- Cohen Used for Complementary Motivation to Combine

The use of Cohen in paragraph 30 mirrors the use of Moosa (discussed above) in the same paragraph and will be permitted in that paragraph for the same reasons. For the same reasons, the use of Cohen in paragraph 40 to support the statement that "multiple myeloma is particularly sensitive to myelosuppressive effects" will be permitted in that paragraph. (ECF No. 723, Ex. B at ¶40.)

- Cohen Used for "21+7 Dosing Claim Elements"

Paragraphs 32 and 45 of the Tricot report are distinguishable from paragraphs 30 and 40. Paragraphs 32 and 45 both state, in part, that "Cohen studied the effects of giving hexamethylamine [a chemotherapeutic] daily for 21 days every 28 days, with prednisone given on days 1-7 to patients with multiple myeloma that failed to respond to, or were relapsing from, previous treatment" and then set out the results of these studies. (ECF No. 723, Ex. B at ¶¶ 32, 45.) Celgene argues that these citations go to the "21+7 dosing claim elements" of the asserted patents. (*See* ECF No. 723, Ex. C at 2, Reference No. 3.) Defendants respond that the Tricot report "just discloses that Cohen described 21+7 dosing for another drug, it's another cancer

[8] Cohen, et al., "Hexamethylamine and prednisone in the treatment of refractory multiple myeloma," *Am. J. Clin. Oncol*. (CCT), 5:21-27 (Feb. 1982). (ECF No. 723, Ex. B at ¶26.)

drug, hexamethylmelamine. . . . he doesn't talk about pomalidomide in this reference." (Hrg. Tr. 63:22-64:4.)

The Special Discovery Master finds that these citations to the Cohen reference and the associated portions of paragraphs 32 and 45 do indeed go to the "21+7 dosing claim elements" because they specifically and explicitly call out "dosing for 21 days every 28 days," which is the exact element present in the claims at issue in this case. For example, claim 1 of the '262 patent claims a method of treatment comprising administering pomalidomide "for 21 consecutive days followed by seven consecutive days of rest from administration of said compound in a 28 day cycle . . ." Similarly, claims 1 and 22 of the '428 patent claim "administering . . . compound having the formula . . . for 21 consecutive days followed by seven consecutive days of rest in a 28 day cycle. . ."

This purpose for reliance on Cohen is not permitted, absent amendment of the invalidity contentions. Amendments must meet the high standard set forth in the Local Patent Rules, and would require a hearing to determine whether that standard can be met. Although Defendants argue that the Tricot report does not actually opine on the issue of obviousness of the MoT patents, as the Special Master noted above, the line between obviousness content and "background" content is too easily blurred. Citing previously undisclosed prior art containing the exact claim elements that Defendants assert are obvious crosses that line here.

iv. The *Alexanian* Reference

The "Alexanian reference"[9] is cited in two paragraphs of the Tricot report – paragraphs 31 and 35 – and is a journal article titled "Combination Chemotherapy for Multiple Myeloma." (*See* ECF No. 723, Ex. C at 2, Reference No. 4.)

- Alexanian Used for Background on Combination Therapy

In Paragraph 31, Dr. Tricot uses Alexanian to report the results of a "study comparing treatments of multiple myeloma using concomitant administration of melphalan and prednisone" and states that co-administration provided "'significantly superior' results compared to those achieved by either agent alone." (ECF No. 723, Ex. B at ¶ 31.) Celgene argues that Alexanian in this paragraph is being used to support "motivation for combination dosing claim elements," and "21+7 dosing claim elements." (ECF No. 723, Ex. C at 2, Reference No. 4.)

The Special Discovery Master finds that this use of the Alexanian reference is limited to background and does not require amendment. This use does not directly address any claim elements of the claims asserted in this litigation and does not introduce any new invalidity theories that were not previously disclosed in the invalidity contentions.

[9] Alexanian, et al., "Combination Chemotherapy for Multiple Myeloma," *Cancer*, 2(30):382-389 (Aug. 1972). (ECF No. 723, Ex. B at ¶31.)

- Alexanian Used for the Distinction between Exogenous and Endogenous IL-6

To the extent that paragraph 35 of the Tricot report uses the Alexanian reference to support the distinction between exogenous and endogenous IL-6, it will be treated in the same manner as the Anderson reference above. (ECF No. 723, Ex. B at ¶ 35.) As discusses directly above, the uses of this reference for solely background purposes, such as historical co-administration of chemotherapeutics with corticosteroids will be permitted without amendment.

v. The *Oken 1987* Reference

The "Oken 1987 reference"[10] is cited in two paragraphs of the Tricot report – paragraphs 31 and 45 – and is a journal article titled "Contribution of Prednisone to the Effectiveness of Hexamethylmelamine in Multiple Myeloma." (*See* ECF No. 723, Ex. C at 2, Reference No. 5.) Celgene alleges that this reference is used by Defendants for purposes of supporting "motivation for combination dosing claim elements" and "21+7 dosing claim elements."

- Oken 1987 Used for Combination Therapy

Paragraph 31 describes Oken 1987 as discussing concomitant administration of prednisone and hexamethylmelamine in multiple myeloma, a use similar to the citation of the Alexanian reference in that same paragraph. As with Alexanian, this use of Oken 1987 will be permitted.

- Oken 1987 Used for "21+7 Dosing Claim Elements"

Paragraph 45, on the other hand, cites Oken 1987 for a different purpose than Paragraph 31. Specifically, this citation to the undisclosed prior art reference states: "Oken 1987 disclosed a 28-day cycle multiple myeloma treatment where hexamethylamine was given on days 1-21 (with prednisone given on days 1-7) followed by a rest period of 7 days." (ECF No. 723, Ex. B at ¶45.) The Special Discovery Master finds that this citation to Oken 1987 is being used by the expert to argue in support of obviousness of the "21+7 dosing claim elements," and thus cannot be used for this purpose without amendment of the invalidity contentions after meeting the requisite standard. This reference specifically calls out a "a 28-day cycle multiple myeloma treatment where [a chemotherapeutic agent] was given on days 1-21. . . followed by a rest period of 7 days," which is the exact element present in the claims at issue in this case. If this reference was sought to be used to support obviousness, it should have been disclosed in the contentions. Although Defendants argue that the Tricot report does not actually opine on the issue of obviousness of the MoT patents, as the Special Master noted above, the line between obviousness content and "background" content is easily blurred. Citing previously undisclosed prior art containing the exact claim elements that Defendants assert are obvious in this case crosses that line here, and these references should have been disclosed in the invalidity contentions.

[10] Oken, et al., "Contribution of Prednisone to the Effectiveness of Hexamethylmelamine in Multiple Myeloma," *Cancer Treat. Rep.* 71(9):807-811 (Sept. 1987). (ECF No. 723, Ex. B at ¶31.)

vi. The *Hardin* Reference

The "Hardin reference"[11] is cited in two paragraphs of the Tricot report – paragraphs 34 and 35 – and is a journal article titled "Interleukin-6 Prevents Dexamethasone-Induced Myeloma Cell Death." (*See* ECF No. 723, Ex. C at 2, Reference No. 6.) These paragraphs use Hardin for the proposition that "downregulation of IL-6 and IL-6 receptor gene expression by dexamethasone and subsequent 'Dex-induced cell death can be prevented by exogenous IL-6.'" (ECF No. 723, Ex. B at ¶35.) This use of Hardin is similar to the use of the Anderson reference for purposes of distinguishing between exogenous and endogenous IL-6 discussed above and will be treated in the same manner.

vii. The *Frei & Antman* Reference

The "Frei & Antman reference"[12] is cited in three paragraphs of the Tricot report – paragraphs 38, 41, and 42 – and is a book chapter titled "Principles of Dose, Schedule, and Combination Therapy." (*See* ECF No. 723, Ex. C at 2, Reference No. 7.) In paragraph 38, Frei & Antman is described as disclosing that "[b]ecause of the marrow's proliferative activity and relative lack of DNA repair capability, myelosuppression is dose limiting for many chemotherapeutic agents." Paragraph 41 cites it for the proposition that "the interval between courses of chemotherapy generally has been the minimum time required for recovery from toxicity." (ECF No. 723, Ex. B at ¶¶38, 41.) Paragraph 42 cites Frei & Antman for "intermittent courses" of chemotherapeutic agents. (ECF No. 723, Ex. B at ¶42.)

The Special Discovery Master finds that this use of Frei & Antman is permitted under the Local Patent Rules. Tricot's uses Frei & Antman for permissible "background purposes." Defendants' use of Frei & Antman may not veer beyond permissible purposes and the parties can address specific violations as necessary, for example, through motions *in limine*.

viii. The *MacDonald* Reference

The "MacDonald reference"[13] is cited in paragraph 39 of the Tricot report and is a journal article titled "Hexamethylmelamine: Activity in lymphoma and other tumors." (*See* ECF No. 723, Ex. C at 2, Reference No. 8.) The report describes MacDonald as "stud[ying] the activity of hexamethylmelamine (a chemotherapeutic) in tumors," and as reporting that "myelosuppression was observed" that was "more likely to occur also at low doses if 'the patient has had more than 2 months of continuous therapy.'" (ECF No. 723, Ex. B at ¶39.)

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[11] Hardin, et al., "Interleukin-6 Prevents Dexamethasone-Induced Myeloma Cell Death," *Blood*, 84(9):3063-3070 (Nov. 1994). (ECF No. 723, Ex. B at ¶34.)

[12] Frei, E. & K.H. Antman, "Principles of Dose, Schedule, and Combination Therapy," *Holland & Frei Cancer Medicine*, 5 (B.C. Decker Inc.) Ch. 40 (2000). (ECF No. 723, Ex. B at ¶38.)

[13] Macdonald, J.S., "Hexamethylmelamine: Activity in lymphoma and other tumors," *Cancer Treatment Reviews*, 18(Supp. A):99-102 (1991). (ECF No. 723, Ex. B at ¶39.)

This use of MacDonald can be characterized as "background" or "foundational," much like the use discussed above for the Anderson reference in paragraphs 26 and 28 of the Tricot report. As the Special Discovery Master explained with respect to this use of Anderson, background references can appropriately be used "for laying a historical foundation to research that was disclosed" or "in sections of [an expert's] report describing treatment options that were available at the time of the invention." *Genentech*, 2012 WL 424985 at *3 (N.D. Cal. Feb. 8, 2012); *Allergan*, 2017 U.S. Dist. LEXIS 225041 at * 24 (E.D. Tex. Aug. 3, 2017). Thus, Defendants may use the MacDonald reference for the purposes described above and no amendment of the invalidity contentions is required. Defendants' use of MacDonald may not veer beyond permissible purposes and the parties can address specific violations as necessary, for example, through motions *in limine*.

ix. The *NDA 20-785 Approval Letter* Reference

The "NDA 20-785 Approval Letter reference" is cited in paragraph 56 of the Tricot report. (*See* ECF No. 723, Ex. C at 2, Reference No. 9.) This reference is used to support the statement that "[k]nown off-label uses [for thalidomide] included treatment of wasting in the late stages of AIDS, which is marked by significant weight loss and increased weakness, and is linked to disease progression and death." (ECF No. 723, Ex. B at ¶56.)

The Special Discovery Master finds this use of the reference appropriate under the Local Patent Rules as permitted "background material" and no amendment of Defendants' invalidity contentions is required. Defendants' use of the NDA 20-785 Approval Letter reference may not veer beyond permissible purposes and the parties can address specific violations as necessary, for example, through motions *in limine*.

x. The *Coleman* Reference

The "Coleman reference"[14] is cited in paragraphs 62-65 of the Tricot report. It is a journal article titled "BLT-D (Clarithrmycin [Biaxin], Low-Dose Thalidomide, and Dexamethasone) for the Treatment of Myeloma and Waldenstroms Macroglobulinemia." (*See* ECF No. 723, Ex. C at 2, Reference No. 10.) In paragraph 62, the Tricot report cites Coleman as confirming the "benefits of concomitant administration of thalidomide with dexamethasone;" Coleman is further cited as a prior art reference that disclosed treatment of multiple myeloma patients with "thalidomide and 40 mg of dexamethasone." (ECF No. 723, Ex. B at ¶62.) Paragraph 65 of the Tricot report also cites Coleman as disclosing treatment with thalidomide "and dexamethasone 40 mg once weekly." (*Id*. at ¶65.)

Claims 1 and 20 of the '262 patent asserted in this litigation provide for the administration of "40 mg of dexamethasone" along with pomalidomide. ('262 patent at 38:17-34; 39:9-40:2.) The Special Discovery Master finds that the portions of Coleman cited by Dr. Tricot tread so close to the claim limitations of the '262 claims that they should have been

[14] Coleman, et al., "BLT-D (Clarithrmycin [Biaxin], Low-Dose Thalidomide, and Dexamethasone) for the Treatment of Myeloma and Waldenstroms Macroglobulinemia.," Leukemia & Lymphona, 43(9):1777-1782 (2002). (ECF No. 723, Ex. B at ¶39.)

disclosed in the invalidity contentions. Therefore, use of the Coleman prior art reference for the purposes cited by Dr. Tricot is not permitted without amendment of the invalidity contentions. If Defendants wish to pursue citing Coleman in support of Dr. Tricot's expert report, they must submit a motion to amend their invalidity contentions to include this reference for this purpose.

2. The Challenged Material in the Ratain Report

Dr. Mark Ratain submitted a 109-page opening expert report ("Ratain Report") on behalf of Defendants. (ECF No. 723, Ex. A.) The Ratain Report addresses, *inter alia*, Defendants' obviousness arguments relating to Celgene's asserted MoT patents.

Celgene objects to 14 prior art references that were not previously disclosed in Defendants' invalidity contentions. (*See* ECF No. 723, Ex. C at 2-4.) Celgene also objects to 5 alleged obviousness combinations in the Ratain Report that were not disclosed in Defendants' contentions, as well as 4 previously disclosed prior-art references that Celgene alleges are used in the Ratain Report for a new purpose other than what was disclosed in Defendants' invalidity contentions. (*See* ECF No. 723 at 5; Ex. C at 1 and 5.)

a. *Previously Undisclosed Ratain Report References*:

i. The *ASCO 1997* Reference

The "ACSO 1997 reference"[15] is cited in paragraphs 9, 86, 88, 91, 93-95 and 186 of the Ratain report and is a journal article titled "Critical Role of Phase I Clinical Trials in Cancer Treatment." (*See* ECF No. 723, Ex. C at 2, Reference No. 11.) Paragraph 9 of the Ratain report provides that Dr. Ratain chaired a subcommittee on Phase I trials and led the publication of the ASCO 1997 reference. (ECF No. 723, Ex. A at ¶9.) The remaining paragraphs that cite this reference relate generally to the discovery, preclinical development and phase I clinical development of cancer drugs. (ECF No. 723, Ex. A at ¶¶86, 88, 91, 93-95 and 186.) Celgene argues that this use of ASCO 1997 goes to "reasonable expectation of success for efficacy for the claimed dosage amounts," "routine optimization for arriving at the claimed dosage amounts," and "motivation for use in patients who previously received therapy." (*See* ECF No. 723, Ex. C at 2, Reference No. 11.)

The Special Discovery Master finds that the use of the ASCO 1997 reference in the Ratain report is limited to appropriate "background purposes," such as "for laying a historical foundation to research." *Genentech*, No. C 10-2037 LHK (PSG), 2012 WL 424985 at *3 (N.D. Cal. Feb. 8, 2012). Therefore, no amendment of Defendants' invalidity contentions is required, provided that Defendants' use of the ASCO 1997 reference may not veer beyond permissible purposes and the parties can address specific violations as necessary, for example, through motions *in limine*.

[15]ASCO, "Critical Role of Phase I Clinical Trials in Cancer Treatment," 15(2) *J. Clin. Oncol.* 853 (1997). (ECF No. 723, Ex. A at ¶9.)

ii. The *XELODA (capecitabine) Tablets PI* Reference

The "XELODA (capecitabine) Tablets PI reference" is cited in paragraph 94 of the Ratain report and is the prescribing information for the chemotherapeutic drug XELODA. (*See* ECF No. 723, Ex. C at 2, Reference No. 12; ECF No. 723, Ex. A at ¶94.) The Ratain report uses the XELODA (capecitabine) Tablets PI reference as an example of a cancer drug that utilizes a "rest phase." (ECF No. 723, Ex. A at ¶94.) Specifically, the XELODA reference is cited for administration "for 2 weeks followed by a 1-week rest period given as 3-week cycles." (*Id*.) Celgene argues that the reference is being used for the "21+7 dosing claim elements." (ECF No. 723, Ex C. at 2, Reference No. 12.)

The Special Discovery Master finds that the reference to XELODA in the Ratain report verges so closely on the specifics of the "21+7 dosing" claim element that this prior art reference should have been disclosed in the invalidity contentions. It cannot be used for its specific dosing regimen unless an amendment to the invalidity contentions is sought, and granted. XELODA may be used to support only the known use of "rest phases" generally, without setting out specific dosing regimens.

iii. The *DeMario* Reference

The "DeMario reference"[16] is cited in paragraph 94 of the Ratain report. It is a journal article titled "A phase I study of oral uralcil/ftorafur (UFT) plus leucovorin and bis-acetato-ammine-dichloro-cyclohexylamine-platinum IV (JM-216) each given over 14 days every 28 days." (*See* ECF No. 723, Ex. C at 2, Reference No. 13.) Demario is cited by Dr. Ratain to support the same sentence of his report regarding the known use of a "rest phase" for cancer drugs as discussed above for the XELODA (capecitabine) Tablets PI reference. Celgene makes the same objection for both of these references. (ECF No. 723, Ex C. at 2, Refer ence No. 13.) In a parenthetical following the sentence, the Ratain report describes DeMario as showing "combination administered for 14 days in 28 day cycle." (ECF No. 723, Ex. A at ¶94.)

As with the XELODA reference discussed above, DeMario may be used to support only the known use of "rest phases," but its specific numbers of days of administration followed by days of rest in a 28 day cycle cannot be referred to by Dr. Ratain unless this prior art reference is permitted as an amendment to the invalidity contentions. For that purpose, this prior art reference should have been disclosed in the invalidity contentions.

iv. The *Ratain 1993* Reference

[16] DeMario, M. et al., "A phase I study of oral uracil/ftorafur (UFT) plus leucovorin and bis-acetato-ammine-dichloro-cyclohexylamine-platinum IV (JM-216) each given over 14 days every 28 days," 43 *Cancer Chemother. Pharmacol*. 385, 385 (1999). (ECF No. 723, Ex. A at ¶94.)

The "Ratain 1993 reference"[17] is cited in paragraphs 93 and 95 of the Ratain report and is a journal article titled "Statistical and Ethical Issues in the Design and Conduct of Phase I and II Clinical Trials of New Anticancer Drugs." (*See* ECF No. 723, Ex. C at 3, Reference No. 14.) Paragraph 93 cites this reference for the proposition that "the determination of a starting dose of an oncology drug for phase 1 studies, and the determination of the MTD historically used in phase 2 studies, are based on routine optimization, often leading to a 'standard' phase 1 trial design." (ECF No. 723, Ex. A at ¶93.) Paragraph 95 states that "[i]n 2002, while the primary goal of a phase 1 trial was to determine the recommended dose of the drug for phase 2 trial, preliminary evidence of therapeutic benefit was also often gathered." (ECF No. 723, Ex. A at ¶93.) Celgene objects to these used of Ratain 1993 as going to reasonable expectation of success and routine optimization for arriving at the claimed dosage amounts. (ECF No. 723, Ex. C at 3, Reference No. 14.)

The Special Discovery Master finds that the use of Ratain 1993 in the Ratain report is similar to the use of the ASCO 1997 reference in that it is being offered for laying a historical foundation to research. *See Genentech*, No. C 10-2037 LHK (PSG), 2012 WL 424985 at *3 (N.D. Cal. Feb. 8, 2012). As such, no amendment of Defendants' invalidity contentions is required.

v. The *Grobois* Reference

The "Grobois reference"[18] is cited in paragraphs 96, 97, 101, 102, 137, and 187 of the Ratain report and is a journal article titled "Current treatment strategies for multiple myeloma." (*See* ECF No. 723, Ex. C at 3, Reference No. 15.) Paragraph 96 describes how multiple myeloma manifests itself, while paragraph 97 describes the standard of care for multiple myeloma prior to 1990. (ECF No. 723, Ex. A at ¶¶ 97-97.) Paragraphs 101 and 102 discuss the use of thalidomide in multiple myeloma. (ECF No. 723, Ex. A at ¶¶ 101-102.) Paragraph 137 discusses that in 2002, "thalidomide and its analogs, having demonstrated impressive response rates in patients with advanced multiple myeloma, were viewed as very promising treatments and were being extensively investigated," and paragraph 187 describes Grobois as disclosing "thalidomide as an angiogenesis inhibitor." (ECF No. 723, Ex. A at ¶¶ 137; 187.) Celgene objects to the inclusion of this reference because it argues that it shows "anti-angiogenesis as a motivation to investigate thalidomide and its analogs," "response rates of thalidomide and/or its analogs as motivation for using pomalidomide to treat [multiple myeloma]," and "reasonable expectation of success." (ECF No. 723, Ex. C at 3, Reference No. 15.)

The Special Discovery Master finds that Grobois is permissible "background" material used for the purpose of generally describing treatment options that were available at the time of the invention, and for laying a historical foundation to research. (*Genentech*, No. C 10-2037

[17] Ratain, M.J. et al., "Statistical and Ethical Issues in the Design and Conduct of Phase I and II Clinical Trials of New Anticancer Drugs," 85 *J. Natl. Cancer Int*. 1637, 163-38 (Octo. 20, 1993). (ECF No. 723, Ex. A at ¶93.)

[18] Grosbois, E. et al., "Current treatment strategies for multiple myeloma," 13 *Euro. J. of Internal Med*. 85, 86 (2002). (ECF No. 723, Ex. A at ¶96.)

LHK (PSG), 2012 WL 424985 at *3 (N.D. Cal. Feb. 8, 2012). It is not, and cannot be, cited for showing the claim limitations of the claims asserted in this case. No amendment of Defendants' invalidity contentions is required, provided that Defendants' use of the Grobois reference does not veer beyond permissible purposes.

vi. The *Gupta* Reference

The "Gupta reference"[19] is cited in paragraphs 96, 97, 101, 102, 104, 107, 112, 137, 157, 187 and 193 of the Ratain report and is a journal article titled "Novel Biologically Based Therapeutic Strategies in Myeloma." (*See* ECF No. 723, Ex. C at 3, Reference No. 16.) Its uses in paragraphs 96, 97, 101, 102, 137, and 187 of the Ratain report, as well as Celgene's objections to these uses, are similar to the uses of and objections to the Grobois reference in those paragraphs. (ECF No. 723, Ex. A at ¶¶ 97-97, 101-102, 137 and 187.) For the same reasons described above for Grobois, these uses of the Gupta reference will be permitted without amendment of the invalidity contentions.

Paragraphs 104, 107, and 112 discusses the use of thalidomide and two classes of thalidomide analogs, including lenalidomide, in multiple myeloma. (ECF No. 723, Ex. A at ¶¶ 104, 107, and 112.) Paragraph 157 points to Gupta as showing that "the POSA would also have known that proteasome inhibitors were being actively investigated as multiple myeloma treatments," and Paragraph 193 uses it to support "a POSA's knowledge regarding proteasome inhibitors." (ECF No. 723, Ex. A at ¶¶157 and 193.) Like the other uses of Gupta, these paragraphs utilize this reference for laying a historical foundation to research and generally describing treatment options that were available at the time of the invention. This is permissible under the Local Patent Rules and no amendment will be required by Defendants.

vii. The *Harousseau* Reference

The "Haraousseau reference"[20] is cited in paragraphs 97 and 137 of the Ratain report and is a journal article titled "Management of Multiple Myeloma." (*See* ECF No. 723, Ex. C at 3, Reference No. 17.) In paragraph 97, the Ratain report cites Harousseau as "discussing treatments for multiple myeloma, including melphalan plus prednisone, a corticosteroid; the VAD regimen, which includes vincristine, doxorubicin (adriamycin), and high dose dexamethasone; thalidomide; interferon alpha; and high dose chemotherapy." (ECF No. 723, Ex. A at ¶97.) Celgene argues that this use goes to "motivation for combination dosing claim elements" and "response rates of thalidomide and/or its analogs as motivation for using pomalidomide to treat [multiple myeloma]." (*See* ECF No. 723, Ex. C at 3, Reference No. 17.) As discussed above, if a previously undisclosed motivation to combine is a "more specific articulation[] of previously disclosed [invalidity theories]" rather than a new invalidity theory altogether, it is permissible under the Local Patent Rules. *See Fujifilm*, 2015 WL 757575 at 32. Among other things, Defendants previously disclosed that a person of ordinary skill "would have

[19] Gupta, D. et al., "Novel Biologically Based Therapeutic Strategies in Myeloma," 6(3) *Rev. Clin. Exp. Hematol*., 301, 301 (Sept. 2002). (ECF No. 723, Ex. A at ¶96.)
[20] Harousseau, J. et al., "Management of Multiple Myeloma," 6.3 *Rev. Clin. Exp. Hematol.* 253, 256-62 (Sept. 2002). (ECF No. 723, Ex. A at ¶97.)

understood that if thalidomide was effective in the treatment of relapsed or refractory multiple myeloma, pomalidomide should be even more effective due to its increased potency and direct action on multiple myeloma cells," as well as that a person of ordinary skill in the art "would have been motivated to use this potent therapy in the treatment of multiple myeloma." (Defendants Invalidity Contentions, ECF No. 723, Ex. D at p. 133.) Defendants also previously stated that a "person of ordinary skill in the art would have known to administer pomalidomide with dexamethasone because it was disclosed in the prior art." (*Id*. at 126.) Thus, the Ratain report's use of the Harousseau reference in paragraph 97 does not introduce a new invalidity theory, but is instead a more specific articulation of a previously disclosed one, and will be permitted without amendment.

In paragraph 137, Haroussaeu is used to support the same statement for which the Grosbois and Gupta references were used in that paragraph, and all of these references will be treated equally for this purpose. As stated above, no amendment is required by Defendants for this use. If Defendants attempt to use this reference beyond permissible purposes, the parties can address specific violations as necessary, for example, through motions *in limine.*

viii. The *Hussein* Reference

The "Hussein reference"[21] is cited in paragraph 97 of the Ratain report and is a journal article titled "Nontraditional Cytotoxic Therapies for Relapse/Refractory Multiple Myeloma." (*See* ECF No. 723, Ex. C at 3, Reference No. 18.) The reference is described in the Ratain report as "discussing treatment options at the time, including thalidomide and its analogs [bortezomib] and arsenic trioxide." (ECF No. 723, Ex. A at ¶97.) Celgene objects to this reference as showing "finite number of treatments for [multiple myeloma] in the prior art in support of obvious-to-try theory." (ECF No. 723, Ex. C at 3, Reference No. 18.)

The Special Discovery Master finds that Defendants' use of the Hussein reference in the Ratain report does not set forth any new invalidity theory and merely expands on theories previously set out. The Ratain report also doesn't use any language from Hussein that explicitly reads on any of the claim elements of the claims at issue in this case. As such, Defendants need not amend their invalidity contentions to include the Hussein reference. If Defendants attempt to use this reference beyond permissible purposes, the parties can address specific violations as necessary, for example, through motions *in limine.*

ix. The *Schellens* Reference

The "Schellens reference"[22] is cited in paragraph 101 of the Ratain report and is a journal article titled "Endostatin: Are the 2 Years Up Yet?" (*See* ECF No. 723, Ex. C at 3, Reference No. 19.) In paragraph 101, the Ratain report uses Schellens to support the statement that "the literature reflects that there was 'tremendous excitement' in Dr. Folkman's work and the

[21] Hussein, M. et al., "Nontraditional Cytotoxic Therapies for Relapse/Refractory Multiple Myeloma," 7 *The Oncologist* 20, 24-27 (2002). (ECF No. 723, Ex. A at ¶97.)
[22] Schellens, J. et al., "Endostatin: Are the 2 Years Up Yet?" 20(18) *J. Clin. Oncol*. 3758, 3758 (2002). (ECF No. 723, Ex. A at ¶101.)

potential of angiogenesis inhibitors for the treatment of cancers." (ECF No. 723, Ex. A at ¶101.) Celgene argues that this shows "anti-angiogenesis as a motivation to investigating thalidomide and/or its analogs." (*See* ECF No. 723, Ex. C at 3, Reference No. 19.)

The use of the Schellens reference in the Ratain report does not set out any new invalidity theory, but rather expands on theories previously set out by Defendants. Nor does the Ratain report cite any language from Schellens that explicitly reads on any of the claim elements of the claims at issue in this case. Defendants' invalidity contentions discuss, *inter alia*, the use of thalidomide analogs for treatment of multiple myeloma through antiangiogenic and antiproliferative activities. (*See, e.g*., ECF No. 723, Ex. D at pp. 102-104.) Thus, no amendment of the invalidity contentions is needed to use the Schellens reference.

x. The "*Additional Alexanian"* Reference, the *Zangari* Reference, the *Osman* Reference, and the *Cavo* Reference

The "Additional 'Alexanian' reference,"[23] the "Osman reference,"[24] the "Cavo reference,"[25] and the "Zangari reference"[26] are all journal articles cited in paragraph 103 of the Ratain report to support the statement that "[t]he prior art also noted that the treatment of myeloma with thalidomide in combination with other drugs, including dexamethasone, was associated with deep venous thrombosis." (ECF No. 723, Ex. A at ¶103.) Zangari is additionally used in paragraphs 145 and 151 of the Ratain report for similar purposes. (*See* ECF No. 723, Ex. C at 3, Reference No. 21.)

Celgene asserts that these previously-undisclosed references are impermissibly used for the purpose of showing "deep venous thrombosis as motivation to arrive at once weekly dexamethasone dosing claim elements." (ECF No. 723, Ex. C at 3-4, Reference Nos. 20-23.) At the hearing, Celgene argued that deep vein thrombosis does not appear in Defendants' invalidity contentions at all, and that it is "a brand-new theory, even if they want to call it a motivation and not a claim element" and that the case law provides that "you can't introduce a new motivation theory, whether through a new reference or old reference." (Hrg. Tr. at 92:4-12.)

As stated above, paragraph 103 uses these references to support the statement that "[t]he prior art also noted that the treatment of myeloma with thalidomide in combination with other drugs, including dexamethasone, was associated with deep venous thrombosis." (ECF No. 723,

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[23]Alexanian, R. et al., "Thalidomide in Hematologic Malignancies: Future Directions," 37(1) *Hematology* 35, 37 (3rd. Suppl., Jan 2000). (ECF No. 723, Ex. A at ¶103.)

[24] Osman, K. et al., To the Editor: "Deep-vein Thrombosis and Thalidomide Therapy for Multiple Myeloma," 344(25) *N. Eng. J. Med.* 1951, 1951-52 (June 21, 2001). (ECF No. 723, Ex. A at ¶103.)

[25] Cavo, M. et al., To the Editor: "Deep-vein thrombosis in patients with multiple myeloma receiving first-line thalidomide-dexamethasone therapy," 100(6) *Blood* 2272, 2272-73 (Sept. 2002). (ECF No. 723, Ex. A at ¶103.)

[26]Zangari, M. et al., "Increased risk of deep-vein thrombosis in patients with multiple myeloma receiving thalidomide and chemotherapy," 98(5*) Blood* 1614, 1615 (2001) (ECF No. 723, Ex. A at ¶103.)

Ex. A at ¶103.) Another reference, Barlogie 2001, is also cited to support this statement. (*Id*.) Barlogie 2001 was previously disclosed in Defendants' invalidity contentions, but the invalidity contentions do not cite Barolgie 2001, or any other reference, for the theory that deep venous thrombosis would motivate the selection of once-weekly dexamethasone dosing.[27] (*See, e.g.*, ECF No. 723, Ex. D at pp. 128-129.) Indeed, deep vein thrombosis is not mentioned in the invalidity contentions at all.

The Ratain report cites these references for the purpose of showing that a person of skill in the art would be motivated to space out the administration of dexamethasone in order to avoid complications related to deep vein thrombosis. (ECF No. 723, Ex. A at ¶¶103, 145 and 151.) At the hearing, Defendants candidly acknowledged: "There is actually no dispute that we're using Zangari to provide motivation to space out dexamethasone dosing," which leaves the question for the Special Master "was this a reference we were required to disclose in our invalidity contentions." (Hrg. Tr. at 97:5-10.)

A purpose of the invalidity contentions is to state the case theories, including some explanation for motivation to combine, even though the precise references supporting such motivation need not all be disclosed in the contentions. And, as stated at the outset, a new theory for why references should be combines cannot be added without seeking to amend the contentions and meeting the standard for such amendments.

Certain claim elements of the '262 patent were addressed in general terms in Defendants' invalidity contentions, e.g. that "the particular dosing schedule of combination therapies for the treatment of multiple myeloma were known to impact toxicity and efficacy of the active agents." (ECF No. 723, Ex. D at p. 129.)

However, while the invalidity contentions did disclose the concept that a person of ordinary skill in the art would be motivated to adjust the dosing schedule of combination therapies based on the toxicity and efficacy of the active agents, and that one active agent used in combination therapy could be dexamethasone, the avoidance of the serious side effect of deep vein thrombosis associated with dexamethasone was not disclosed in the invalidity contentions. The case law does support a distinction between an undisclosed prior art reference raising a new theory for finding the claims invalid, and the undisclosed reference being merely an evidentiary example or complementary proof of a theory that has been properly disclosed. *Genentech,* 2012 WL 424985 at *2 (N.D. Cal. Feb. 8, 2012.)

This line can only be drawn on a reference by reference basis, and this particular reference presents a close case. While avoidance of toxicity of drugs was disclosed, the actual dangerous condition of deep vein thrombosis as a motivation to combine dexamethasone with pomalidomide for the treatment of multiple myeloma was not disclosed in the invalidity contentions. The Ratain report, for the very first time, opines about the danger of deep venous thrombosis, and that the person of ordinary skill in the art would "have been motivated to minimize the dose and/or frequency of administration of dexamethasone in combination with

[27] Celgene also objects to this use of Barlogie 2001 for a new purpose as addressed in Section 2.b.i below.

pomalidomide, given the risk of deep venous thrombosis." (ECF No. 723, Ex. A at ¶¶103, 145.) This is a new theory for why a person of skill in the art would combine the prior art to render the claims obvious, and should have been disclosed in the invalidity contentions. Deep vein thrombosis is an actual severe and dangerous medical condition that goes far beyond the ordinary understanding of drug toxicity. If defendants wish to include this theory in Dr. Ratain's report and testimony, an amendment to the contentions will be required.

For other purposes, such as using the Alexanian, Zangari, Osman or Cavo references for the general motivation to space out the dexamethasone administration to avoid toxicities, these references can properly be used without amendment, but any references to deep venous thrombosis cannot be made without amendment.

xi. The *Schey IV* Reference

The "Schey IV reference"[28] is cited in paragraph 128 of the Ratain report. It is a journal article titled "Pomalidomide therapy for myeloma." (*See* ECF No. 723, Ex. C at 4, Reference No. 24.) The Ratain report cites the Schey IV reference to support the following statement: "By 2011, the POSA would know that Dr. Stephen Schey had published a summary of the clinical studies involving pomalidomide in multiple myeloma patients." (ECF No. 723, Ex. A at ¶128.)

Celgene argues that this use of Schey IV is used to support "motivation to arrive at the claimed dosage amounts," (ECF No. 723, Ex. C at 4, Reference No. 2) and is not permitted under the Local Patent Rules because it was never disclosed in the invalidity contentions. As discussed above, prior art references used solely to supplement a motivation to combine generally need not be disclosed in the invalidity contentions as long as the theory of why a person of skill in the art would combine is described, in order to put the patent holder on notice of the nature of the theory. As to Schey IV, the Special Discovery Master is concerned by the fact that Dr. Ratain does not clearly set out the purpose of including the Schey IV reference in his expert report, and instead describes the reference as a "summary of the clinical trials." Guesswork is not the way to handle this, particularly because we are already dealing with an exception to the general rule that invalidity theories are to be disclosed in the invalidity contentions. Without knowing the purpose underlying Dr. Ratain's citation to this undisclosed prior art reference, there is an insufficient basis shown in Dr. Ratain's report to avail himself of that exception. Any use of the previously-undisclosed Schey IV that calls out any specific details of the clinical trials will not be permitted without amendment of the invalidity contentions.

Defendants may use the Schey IV reference to establish the mere existence of clinical studies involving pomalidomide in multiple myeloma at the time of invention, without any specific dosage data, as such a use would appropriately fall under "background material" used "for laying a historical foundation to research that was disclosed." *Genentech*, 2012 WL 424985 at *3 (N.D. Cal. Feb. 8, 2012).

[28] Schey, S. et al., "Pomalidomide therapy for myeloma," 20(5) *Expert Opin. Investig. Drugs* 691, 695-96 (2011). (ECF No. 723, Ex. A at ¶128.)

b. *Previously-Disclosed References Used for a New Purpose in the Ratain Report:*

Celgene also argues that the Ratain report improperly relies on certain references that were previously disclosed in Defendants' invalidity contentions, but for entirely new theories than those for which they were previously used. (*See, e.g.*, ECF No. 723 at 5.) According to Celgene, this is impermissible under Local Patent Rule 3.3(b) because that rule requires "an explanation of why the prior art renders the asserted claim obvious." (*Id.*) Defendants dispute that the Ratain report's use of these references is improper under the Local Patent Rules.

At the hearing, Celgene withdrew its objection to the "U.S. Patent No. 6,281,230" reference (ECF No. 723, Ex. C at 5, Reference No. 1), and as such, the Special Discovery Master will not address this reference. (*See* Hrg. Tr. at 124:16-18.) The other previously-disclosed references that Celgene alleges are being used for a new purpose are discussed below.

i. The *Barlogie 2001* Reference, the *Schey I* Reference, *Schey Report* Reference

Celgene argues that the "Barlogie 2001" Reference, the "Schey I" Reference, "Schey Report" Reference "are being used for the first time in the expert report for this deep vein thrombosis theory . . . that was never disclosed and that goes to the once weekly dexamethasone claim limitation." (Hrg. Tr. at 125:9-14; *see also* ECF No. 723, Ex. C at 5, Reference Nos. 2, 3, and 4.) These references are used in paragraphs 103, 145 and 151 of the Ratain report, the same sections relating to deep vein thrombosis discussed in Section 2.a.x above. (ECF No. 723, Ex. A at ¶¶103, 145 and 151.) Defendants "concede [deep vein thrombosis] was not expressly mentioned in [their] invalidity contentions," but argue that these references were previously disclosed and are now being relied on in the Ratain report "for the additional motivation regarding the deep vein thrombosis." (Hrg. Tr. at 125:24-126:10.)

As discussed above, the avoidance of deep vein thrombosis as a theory of motivation to arrive at spreading out the dexamethasone dosing was not set out in Defendants' invalidity contentions, and therefore this purpose of the above cited references itself is impermissible without a motion to amend.

ii. The *Lacy 2009* Reference

Celgene argues that the "Lacy 2009"[29] reference, which was previously used in a "discussion of 'Objective Indicia of Non-Obviousness" in Defendants' invalidity contentions is now being offered for purposes of the "once weekly dexamethasone dosing claim elements" in paragraph 127 of the Ratain report. (ECF No. 723, Ex. C at 5, Reference No. 3.) The Ratain report uses Lacy 2009, *inter alia*, to state that "[t]he study disclosed in Lacy 2009 involved administration of 2 mg per day of pomalidomide continuously in a 28 day cycle, with 40 mg of

[29] Lacy, M. et al., "Pomalidomide (CC4047) Plus Low-Dose Dexamethasone As Therapy for Relapsed Multiple Myeloma," 27(3) *J. Clin. Oncol.* 5008, 5008 (2009). (ECF No. 723, Ex. A at ¶127,)

dexamethasone administered orally on days 1, 8, 15, and 22 of each cycle." (ECF No. 723, Ex. A at ¶127.)

Previously, Defendants' invalidity contentions used Lacy 2009 in a discussion of "Objective Indicia of Non-Obviousness" in the context of "Invalidity Based on Anticipation/Obviousness Under 35 U.S.C. §102/§103" to state, for example, that "it is clear that the investigators who were part of the trials for pomalidomide expected before the trials were initiated that pomalidomide would demonstrate effectiveness in patients with lenalidomide resistivity." (ECF No. 723, Ex. D at p. 145.) The invalidity contentions did not refer to the dexamethasone dosing in Lacy 2009.

Regardless of whether the Ratain report explicitly refers to Lacy 2009 as prior art in paragraph 127, this paragraph does use this reference to call out "40 mg of dexamethasone administered orally on days 1, 8, 15, and 22 of each cycle," which explicitly goes to the specific dosing day claim elements of the asserted patent claims (specifically, "wherein the dexamethasone is orally administered in an amount of 40 mg once daily on days 1, 8, 15 and 21 of each 28 day cycle," for claims 14 and 25 of the '262 patent, and "once a week of each 28 day cycle" for claim 15 of the '262 patent).

In addition, at paragraph 194 of the Ratain report, Lacy 2009 is used in combination with several other references[30] to support Ratain's opinion that "the asserted claims specifying previous treatment with a specific therapy" were obvious to a person of ordinary skill as of March 15, 2012.[31] (ECF No. 723, Ex. A at 100.) Thus, in order to use the Lacy 2009 reference for the purpose of calling out "40 mg of dexamethasone administered orally on days 1, 8, 15, and 22 of each cycle," as in paragraphs 127 and 194 of the Ratain report, Defendants must submit a motion to amend their invalidity contentions to include this reference for this purpose.

c. *Alleged New Obviousness Combinations Used in Ratain Report:*

Celgene also moves to strike obviousness combinations that were not previously disclosed in Defendants' invalidity contentions. (*See* ECF No. 723 at 5.) Celgene argues that Local Patent Rule 3.3(b) specifically requires "an explanation of why the prior art renders the asserted claim obvious, including an identification of ***any combinations*** of prior art showing obviousness." (L. Pat. R. 3.3(b).) Defendants respond that they have sufficiently disclosed the prior art combinations used in the Ratain report.

Celgene argues that in their invalidity contentions, Defendants previously only alleged the "D'Amato Prior Invention" alone and not in combination with any other references. (ECF 723, Ex. C at 1, Combination 1.) In their invalidity contentions, Defendants argued:

[30] As discussed below, Celgene also objects to this combination as one that was not previously disclosed and should therefore be stricken under the Local Patent Rules.

[31] In their invalidity contentions, Defendants argue that alternative priority dates apply to various elements of the asserted claims. (*See, e.g.,* ECF No. 723, Ed. D at pp. 85-91.)

> All claims of the [MoT patents] are invalid pursuant to at least 35 U.S.C. §§102(f) & (g)(2) at least because the listed inventor, Jerome B. Zeldis, did not invent himself the subject matter claimed in the [MoT patents], and/or the subject matter claimed in the [MoT patents] was previously invented in this country by another inventor who had not abandoned, suppressed, or concealed it.

(ECF No 723, Ex. D at 178.) One of the arguments made in this section of the contentions was that "pomalidomide for treatment of blood related cancers was conceived of and reduced to practice by Robert D'Amato and/or Robert D'Amato with others at The Children's Medical Center Corporation, not Jerome B. Zeldis." (*Id*. at 179.) (citing several D'Amato publications, as well as the *Celgene Corporation v. James E. Rogan and EntreMed, Inc*., No. 1:02-cv-02277 (D.D.C. Nov. 19, 2002) litigation.)

Defendants' invalidity contentions also list 109 prior art references that are "prior art to the Patents-in-Suit under one or more of 35 U.S.C. §§ 102(a), (b), (e), (f) and (g)." (ECF No. 723, Ex. D at 8; references listed at 9-18.) Defendants then stated that they "reserve the right to rely on any of the above listed references as anticipating or rendering obvious one or more of the Asserted Claims." (*Id*. at 18.) The majority of these references (107 of them) were again listed in a section of the invalidity contentions titled "Prior Art That Anticipates or Renders Obvious Each Asserted Claim," (*Id*. at 91-99) followed by a statement that "Defendants reserve the right to rely on any combination of the above prior art in an obviousness defense," and Defendant then provided 18 combinations of prior art references that Defendants described as "exemplary of the many combinations of pitot art that render the asserted claims . . . obvious." (*Id*. at 100-102.) After the "exemplary" combinations were listed in the contentions, Defendants also noted that "[t]his list is exemplary and does not constitute an exhaustive list of all possible combinations," and that "Defendants also identify and incorporate the combinations identified below and in the claim charts attached as Exhibits A-C." (*Id*. at 102.) The claim charts attached as Exhibits A-C list those portions of the prior art references that allegedly go to the elements of the asserted claims. (*See* ECF No. 379, Exs. 3-5.) The new combinations to which Celgene is objecting were not disclosed in the 18 "exemplary" combinations.

At the hearing, Defendants argued that the combinations to which Celgene objects are "not new combinations at all, that we did disclose them in connection with our charts – our claim charts, that D'Amato could be combined with our other prior art combinations." (Hrg. Tr. at 104:8-12.) Defendants were referring to a statement made in the claim charts accompanying their invalidity contentions, which stated "Defendants incorporate by reference the arguments made in the accompanying Invalidity Contentions with respect to the invalidity of certain of the following claim limitations under 35 U.S.C. §§ 101, 102(f), 102(g)(2), 112." (*See* ECF No. 379, Ex. 3 at p. 1; Ex. 4 at p. 1; Ex. 5 at p. 1.) Thus, Defendants argue that "Celgene was on notice of Defendants' intent to argue obviousness based on D'Amato's prior invention in combination with other prior art references," and that "Celgene does not dispute that each of the prior art references in this combination (Schey I/Schey Report, Richardson II, Barlogie 2001, and the '471 Patent) were disclosed individually and in combination." (*Id*. at 10.)

Celgene responds that this is not sufficient and that, although Celgene does not need to show prejudice in order to succeed on its motion to strike, it would be prejudiced by the

inclusion of these prior art combinations because the deposition of Dr. D'Amato was already conducted without Celgene knowing that his work would be used in an obviousness combination. (Hrg. Tr. at 106:11-108:10.)

Local Patent Rules "exist to further the goal of full and timely discovery and provide all parties with adequate notice and information with which to litigate their cases." *Verinata Health, Inc. v. Sequenom*, *Inc*., 2014 WL 4100638 at *1 (N.D. Cal. Aug. 20, 2014) (citing *Fresenius Med. Care Holdings, Inc. v. Baxter Int'l*, 2006 U.S. Dist. LEXIS 90756, at *12 (N.D. Cal. May 15, 2006)). "The rules are designed to require parties to crystallize their theories of the case early in the litigation and to adhere to those theories once they have been disclosed." *Verinata*, 2014 WL 4100638 at *1 (N.D. Cal. Aug. 20, 2014). "Given the purpose behind the patent local rules' disclosure requirements, 'a party may not use an expert report to introduce new infringement theories, new infringing instrumentalities, new invalidity theories, or new prior art references not disclosed in the parties' infringement contentions or invalidity contentions.'" *Id*. at *3 (quoting *Asus Computer Int'l v. Round Rock Research*, LLC, No. 12–cv–02099 JST (NC), 2014 U.S. Dist. LEXIS 50728, at *5 (N.D. Cal. Apr. 11, 2014)).

"In determining whether to strike some or all of an expert report based on the failure to properly disclose a theory of infringement or invalidity, at least one court in this district has framed the relevant question as: 'will striking the report result in not just a trial, but an overall litigation, that is more fair, or less?'" *Verinata*, 2014 WL 4100638 at *3 (N.D. Cal. Aug. 20, 2014).

The Special Discovery Master first turns to the express language of the Local Patent Rule, which requires that "[i]f obviousness is alleged," the invalidity contentions must provide "an explanation of why the prior art renders the asserted claims obvious, ***including an identification of any combinations*** of prior art showing obviousness." Local Patent Rule 3.3(b). The requirement for an "identification" of "any combinations" suggests that any specific combination on which a party wishes to rely must be set out in the invalidity contentions. Defendants' contentions set out 18 specific "exemplary" combinations. (ECF No. 723, Ex. D at p. 100-102.) Then the claim charts associated with the asserted claims of the MoT patents set out those portions of the asserted 109 prior art references that allegedly go to the claim limitations of the asserted claims. (ECF No. 379, Exs. 3-5.) For element (a)[32] of claim 1 of the '262 patent, Defendants list approximately 80 citations to references that allegedly correspond to this element. (*Id*. at pp. 2-21.) For element (b)[33] of claim 1 of the '262 patent, Defendants list approximately 30 references that allegedly correspond to this element. (*Id*. at pp. 21-31.) For elements (c) and (d),[34] the claim chart lists about 15 references each. (*Id*. at 31-41.) In addition,

[32] Element (a) in Defendants' '262 patent claim chart is the part of claim 1 that provides: "A method of treating multiple myeloma, which comprises administering to a patient having multiple myeloma." (*Id*. at pp. 2-21.)

[33] Element (b) in Defendants' '262 patent claim chart is the part of claim 1 that provides: "(a) from about 1 mg to about 5 mg per day of a compound having the formula: [chemical structure] or a pharmaceutically acceptable salt, solvate or stereoisomer thereof." (*Id*. at pp. 21-31.)

[34] Element (c) provides: "for 21 consecutive days followed by seven consecutive days of rest from administration of said compound in a 28 day cycle, and," while element (d) provides: "(b) 40 mg of dexamethasone." (*Id*. at 31-41.)

the ’262 claim chart is preceded by the statement “[t]he below chart provides examples of prior art that establish the asserted claims of the ’262 Patent are anticipated and/or rendered obvious over the prior art,” another statement that “Defendants also incorporate by reference the accompanying Invalidity Contentions with respect to the anticipation or obviousness of the ’262, ’939, ’428 and ’427 Patents, including prior art descriptions and citations, exemplary prior art combinations, and exemplary obviousness rationales and motivations described therein,” and yet another statement that “Defendants incorporate by reference the arguments made in the accompanying Invalidity Contentions with respect to the invalidity of certain of the following claim limitations under 35 U.S.C. §§ 101, 102(f), 102(g)(2), 112.” (*Id*. at 1.)

In this manner, Defendants are short-circuiting the requirement of the rule to identify “any combination” by listing scores of potential references and sources of obviousness arguments and stating that any possible combination of that multitude of material has been sufficiently disclosed. Such a short-cut does not comply with the plain language of the Rule. It leaves a potential set of permutations and combinations numbering in the hundreds, or more, without saying anything about them, or even specifically identifying them. The identification of the combinations is an explicit requirement of the Local Patent Rules.

The Special Master now turns to the fact that New Jersey’s Local Patent Rules exist for a specific purpose and that purpose must be protected, or the rules become meaningless. As set out above, Courts have explained that the rules were written to ensure that the parties crystallize their theories of the case early in the litigation, so as to provide the other side with adequate notice and information with which to litigate its case. (*See, e.g., Verinata*, 2014 WL 4100638 at *1 (N.D. Cal. Aug. 20, 2014).) The question thus becomes, did Defendants sufficiently crystallize their theories of the case in their invalidity contentions such that Celgene had adequate notice and information to litigate its case?

Although Defendants set out the alleged disclosures of *some* of these references in the claim charts chart and elsewhere in the invalidity contentions, the circular “incorporation by reference” incantation and recitation of Defendants’ disclosure makes it impossible to identify the actual combinations that Defendants will ultimately present in their case beyond the exemplary ones. This chorus of “incorporation by reference” is a far cry from a “crystalliz[ation] [of Defendants’] theories of the case early in the litigation.” There are hundreds, if not thousands of possible combinations that could be arrived at using Defendants’ disclosure of their theories of the case in the invalidity contentions. The vague, catch-all reservations of rights to combine anything disclosed with anything else disclosed in the invalidity contentions does not accomplish the purpose of the Local Patent Rules. (*See, e.g., LML Patent Corp. v. JPMorgan Chase & Co.,* No. 08-448, 2011 U.S. Dist. LEXIS 128724 at *20 (E.D. Tex. Aug. 11, 2011) (holding that “[o]n balance the exclusion of the twenty-eight new combinations is necessary and appropriate in order to meaningfully uphold the Local Patent Rules,” on a motion to strike new combinations of prior art based on references previously disclosed in invalidity contentions.) (citing *Tyco Healthcare Group LP v. Applied Med. Res. Corp*., No. 9:06-CV151, 2009 WL 5842062 at *3 (E.D. Tex. Mar. 30, 2009).)

None of the new alleged prior art combinations used in the Ratain report (set out in ECF No. 723, Ex. C at 1) were specifically identified in Defendants’ invalidity contentions. The

"D'Amato Prior Invention" was set out in a stand-alone section of the invalidity contentions relating to invalidity under 35 U.S.C. §§102(f) and 102(g)(2), which concern derivation and invention by another. (ECF No. 723, Ex. D at 178-180.) This is a distinct theory of invalidity from one under 35 U.S.C. §103 obviousness. The only possible indication in the invalidity contentions that Defendants might attempt to use the "D'Amato Prior Invention" as part of an obviousness theory was the inclusion of the "catch-all" preamble to the claim charts which among several other "reservations," attempts to "incorporate by reference the arguments made in the accompanying Invalidity Contentions with respect to the invalidity of certain of the following claim limitations under 35 U.S.C. §§ 101, 102(f), 102(g)(2), 112."

Such amorphous statements can hardly be said to "crystallize" Defendants' theories of the case. It does not meaningfully put Celgene on notice of the actual concrete issues that it will have to litigate. In this situation, requiring the Defendants to meet the standard to amend their invalidity contentions to explicitly include the "D'Amato Prior Invention" as part of Defendants' obviousness case (ECF No. 723, Ex. C, at 1, Combinations 1 and 2) would result in "an overall litigation . . . that is more fair." *See Verinata*, 2014 WL 4100638 at *3 (N.D. Cal. Aug. 20, 2014).

Defendants' previous disclosure of an obviousness theory involving a combination of Lacy 2009 with other prior art references is also lacking. (*See* ECF No. 723, Ex. C, at p. 1, Combination 4.) As discussed above, Lacy 2009 was not previously disclosed as prior art, but was instead used only in the context of objective indicia of non-obviousness. (ECF No. 723, Ex. D at p. 145.) The combination of Lacy 2009 with any other references, much less the specific combination with Schey I, Schey Report, Schey II, Richardson IV, Richardson 2006 and Barlogie 2001, for purposes of obviousness was not a theory that Defendants in any way crystallized in this litigation. It would make the case less fair to require Celgene to tortuously connect the dots via "incorporation by reference" and other "reserved" rights to arrive at this combination of alleged prior art. If Defendants wish to pursue this combination of art, they must attempt to amend their invalidity contentions to include it.

A similar analysis applies to the other two previously undisclosed combinations of prior art found in Dr. Ratain's report. (ECF No. 723, Ex. C at 1, Combinations 3 and 5.) Thus, the Special Discovery Master finds that if Defendants wish to pursue trying to use any of these new alleged combinations of prior art used in the Ratain Report, they must move to amend their invalidity contentions.

Meeting the standard to amend this late in the case will not be an easy task. It would have been far better to actually identify the references to be combined at the outset of the case; bloating the number of combinations does not help "crystallize this litigation," nor provide sufficient notice for Celgene's expert reports, which are in the process of being written.

3. The Challenged Material in the Park Report

Dr. Kinam Park submitted a 264-page opening report on behalf of Defendants. (ECF No. 738, Ex. D.) Among other things, Dr. Park's report opines that the '467 patent is invalid on the

grounds of obviousness and obviousness-type double patenting. (ECF No. 738, Ex. D at 129-206; 233-250.)

Celgene argues that the Park Report relies upon new combinations of references that were not disclosed in Defendants' invalidity contentions; that the Park Report relies on 55 pieces of prior art that were not disclosed in the invalidity contentions; and that the Park Report uses previously disclosed references for entirely new theories. (*Id*. at 3-4.) Defendants argue that the use of these references and theories in the Park Report is proper under the Local Patent Rules.

At the January 27, 2021 hearing, Celgene withdrew its objection to the following Internal Celgene Documents used in the Park Report (*See* Jan 27, 2021 Hearing Tr. at 190:12-22), and consequently the Special Discovery Master makes no ruling on these references:

- CELPOM11262403-2407 (Ref. No. 29 from Table 2 of Ex. E to ECF No. 738)
- CELPOM11746053-6057 (Ref. No. 30 from Table 2 of Ex. E to ECF No. 738)
- CELPOM11746129-6130 (Ref. No. 31 from Table 2 of Ex. E to ECF No. 738)
- CELPOM11746094-6104 (Ref. No. 32 from Table 2 of Ex. E to ECF No. 738)

In addition, at the hearing, Defendants stated that they would not assert the following reference against the '467 patent and would withdraw the use of this reference in the relevant paragraphs of the Park Report:

- '427 patent (Ref. No. 26 from Table 2 of Ex. E to ECF No. 738)

The Special Discovery Master deems this objected-to reference and its uses withdrawn and will not issue a ruling on the same.

a. <u>*Previously Undisclosed Park Report References*</u>:

i. The *'708 Publication*, the *'832 Publication,* and the *'569 Patent* Reference

The '"708 Publication,'" "832 Publication," and '"569 Patent"[35] references are patent publications and an issued patent that are used throughout the Park report addressing the invalidity of the formulation patents. They are described by the Park report as "prior art to the Tutino [formulation] patents." (*See, e.g*., ECF No. 738, Ex. D at ¶ 268.) These references are included in Park's discussion of "the pomalidomide formulation references" that he opines "render obvious claims 1-4 and 6-7 of the '467 patent," (*Id*. at p. 129). They are cited as support for his opinions in no fewer than 30 paragraphs of the Park report, which state Dr. Park's opinions regarding the obviousness of the asserted claims and individual claim elements of the '467 patent. (*See, e.g., id*. at pp. 129-163.) Celgene objects to Defendants' use of these references as prior art because they were not previously identified in Defendants' invalidity contentions, but are now being used for multiple purposes in the Park report. The purposes that

[35] The "'708 Publication" is U.S. Patent Publication No. 2008/0317708, the "'832 Publication" is U.S. Patent Publication No. 2004/0029832, and the "'569 Patent" is U.S. Patent No. 7,968,569. (ECF No. 738, Ex. D at ¶ 268.)

these undisclosed prior art references are now cited include an opinion that they teach the "starch, mannitol, and pomalidomide claim elements" and the "weight percent claim elements." (ECF No. 738, Ex. E, p. 2, Reference No. 1; p. 3, Reference No. 17; and p. 4, Reference No. 18.)

The specific references referred to as the '708 Publication, '832 Publication, and '569 Patent were not identified nor enumerated as prior art in Defendants' invalidity contentions. (The contentions did disclose the related PCT publication No. WO 2004/043377 (the '"377 publication")). (*See* ECF No. 738, Ex. A at p. 11.) The Defendants made broad "incorporations by reference" at the outset of their invalidity contentions, which they now rely upon to support their argument that they notified Celgene of Defendants' intent to rely on the MOT patents, 'as well as any related patents and applications, including their respective prosecution histories." (ECF No. 756 at p. 5.) The entirety of the "incorporation by reference" states:

> Defendants incorporate, in full, all documents and prior art references cited in any one or more of the '467 Patents and any other Patent-in-Suit, including at least with respect to U.S. Patent Nos. 8,198,262 (the '"262 patent"), 8,673,939 (the '"939 patent"), 8,735,428 (the '"428 patent"), and 8,828,427 (the '"427 patent"), as well as any related patents, applications, including their respective prosecution histories, including those filed in the United States or in a foreign country and those listed for Pomalyst®, Revlimid®, or Thalomid® in the FDA's Orange Book.

(ECF No. 738, Ex. A at p. 5.)

The '708 and '832 Publications are published patent applications that claim priority to the same provisional application (Prov. App. No. 60/424,600) as the '377 publication, which was previously disclosed in Defendants 'invalidity contentions. The '832 publication ultimately issued as the '569 Patent. (*See* ECF No. 738, Ex. D at ¶268.) The '708 publication ultimately issued as the '262 MoT patent being asserted in this litigation. "The '832 publication and the '708 publication have the same disclosure as the Zeldis [MoT] Patents asserted in this case . . . and the '377 publication also has the same (or substantially similar) disclosure." (ECF No. 738, Ex. D at ¶ 268.) Defendants further argue that their invalidity contentions "include fulsome explanations for their obviousness theories based on the technical content of the '377 publication, and Dr. Park relies on the very same content where it appears related to the '832 and '708 publications." (ECF No. 756 at 5.)

At the hearing, Celgene further explained its objection to the inclusion of these references in the Park report. After Defendants argued that they are not asserting the MoT patents as prior art for purposes of showing obviousness of the formulation patent claims (Hrg. Tr. at 141:16-20), Celgene argued that in their invalidity "contentions they assert only the '377 publication, and "[n]ow they want to add the '708 publication and . . . the '832 publication for purposes of obviousness," because these references have a "connection to the method of treatment patent." (Hrg. Tr. at 149:19-150:3.)

Defendants described their use of these references as follows:

> So we are saying that the '708 publication is prior art. It teaches a capsule of pomalidomide with starch and mannitol, and that makes the capsule patent obvious. And then Dr. Park says, and there can be no dispute about what the '70[8] patent publication teaches, suggests, and enables because it later issued as the '262 patent from the Patent Office, and the '262 is a method of treatment patent that's asserted in this case. So the reference, prior art reference is '708. The disputed question is what does '708 teach? And we can know what the '708 teaches based on what the Patent Office allowed as a claim and what Celgene asserted it as covering in this litigation.

(Hrg. Tr. at 148:17-149:6.) Defendants also explained that "The WO '377 published patent application was in their contentions from day one. It was used as 103 reference against the Tutino patents. So WO '377 always disclosed for the purposes of showing 103 obviousness of Tutino." (Hrg. Tr. at 156:7-11.)

Celgene further explained:

> [Defendants] only used the method of treatment of patents for obviousness before, nonstatutory different analysis. They didn't say well, let me look at the specifications of those patents. They didn't assert the specification of those patents.

(Hrg. Tr. at 150:21-25.)

The Defendants' intended use of the '708 Publication, '832 Publication, and '569 Patent requires amendment of Defendants' invalidity contentions. Local Patent Rule 3.3 unambiguously sets out the requirement that parties provide "[t]he identity of each item of prior art that allegedly anticipates each asserted claim or renders it obvious," and requires that "[e]ach prior art patent shall be identified by its number, country of origin, and date of issue," while "[e]ach prior art publication shall be identified by its title, date of publication, and where feasible, author and publisher." (D.N.J. Local Patent Rule 3.3(a).) Defendants have chosen not to follow this rule for these references, which are now being asserted as prior art for purposes of showing obviousness of the formulation patents.

Defendants attempt to sweep these references into a catch-all provision "incorporating" a vast multitude of documents relating to the Patents-in-Suit, including "all documents and prior art references cited in any of them [which alone totals hundreds of potential references] . . . as well as any related patents, applications, including their respective prosecution histories, including those filed in the United States or in a foreign country. . ." (ECF No. 738, Ex. A at p. 5.). Such catch-all provisions do not meaningfully crystallize Defendants' case nor put Celgene on notice of the specific prior art references that Defendants are ultimately asserting in their expert report, and which, as discussed above, the Local Rules require to be set out in detail. The total number of potential prior art references "incorporated by reference" is in the hundreds of references. This is hardly a means of complying with a Local Patent Rule aimed at clarity and notice to the opposing party of what prior art references will be relied upon to claim that the patent is invalid.

The Special Discovery Master is equally unpersuaded by Defendants' arguments that these undisclosed prior art references are the same or "substantially similar" to the previously-disclosed '377 publication, and that they should therefore be allowed without amendment. If this is truly the case, then there is no compelling reason for Defendants to include what they concede are cumulative and redundant previously-undisclosed prior art references to support the Park expert report.[36]

ii. The *Martin* Reference and the *FDA Guidance* Reference

The "Martin" Reference and "FDA Guidance" References are cited in paragraphs 69, 75, and 312 of the Park report. (ECF No. 738, Ex. D at ¶¶ 69, 75, and 312.) Martin is a chapter in the book *Physical Pharmacy: Physical Chemical Principles in the Pharmaceutical Sciences* titled "Kinetics,"[37] and the FDA Guidance[38] reference is an FDA guidance document titled "Stability Testing of New Drug Substances and Products." (*See* ECF No. 738, Ex. D at ¶69.) The Park report uses these references to support Dr. Park's opinion that in 2009, the person of ordinary skill in the art "would have been aware of standard practices for determining stability," including at room temperature. (*Id*. at ¶¶ 69, 75, and 312.) Celgene argues that these references are being used for the purpose of showing "preformulation studies (stability testing) to arrive at claimed inventions through routine experimentation." (ECF No. 738, Ex. E at p. 2, Reference Nos. 2-3.) At the hearing, Celgene argued that Park "relies on Martin, and the same thing for the next reference, the FDA guidance . . . in his obviousness section to say that routine optimization gets you there." (Hrg. Tr. at 194:13-17.) Defendants responded that "the theory and the contentions [relating to routine experimentation] are clearly laid out" and that Martin and the FDA Guidance "give[] further evidence that our point of view is correct and Celgene's point of view is incorrect." (Hrg. Tr. at 197:4-15.)

In their invalidity contentions, Defendants previously argued that "determining the particular claimed percent weights of pomalidomide or the claimed percent weights of the excipients form the percent weights or ranges of percent weights disclosed in the prior art would have required no more than routine optimization of known variables." (ECF No. 738, Ex. A at p. 78.) In addition, the invalidity contentions claimed that "[t]he recited weight percentages would have required no more than ordinary adjustment of ingredients disclosed in the prior art for their known purpose, and this would have been obvious to the POSA." (*Id*. at 79.) Defendants also

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[36] There is also more than a whiff of gamesmanship in trying to use the '708 Publication, '832 Publication, and '569 Patent, which are themselves U.S. patents and patent applications (one of which led to one of the asserted MoT patents), to claim that the resulting patents are invalid as obvious. This appears to be nothing more than a "back-door" argument that the MoT patents render the formulation patent claims obvious. If this really is an effort at a clever argument, it should have been explicitly stated. Instead, by disclosing only the PCT application that did not issue into any U.S. patent, the ball was certainly hidden. Hiding the ball is not what the Local Patent Rules permit.

[37] Alfred Martin et al., "Kinetics," *Physical Pharmacy: Physical Chemical Principles in the Pharmaceutical Sciences* 352 (3d ed. 1983). (ECF No. 738, Ex. D at ¶69.)

[38] U.S. Food & Drug Admin., Guidance for Industry: Q1A(R2) Stability Testing of New Drug Substances and Products (2003). (ECF No. 738, Ex. D at ¶69.)

previously set out that "[a] POSA would have been motivated to formulate a pomalidomide capsule to achieve a stable formulation;" would have considered "the prior art at least as a starting point for determining an effective ratio;" and that the determination of an effective ratio "would have been a routine optimization process for a POSA and would have naturally led to the claimed ratio." (*Id*. at 81.)

The Special Discovery Master finds that the Martin and FDA Guidance references do not require amendment of Defendants 'invalidity contentions to remain in the Park report. The use of these references by Park are more akin to "evidentiary example or complementary proof in support [of the theory of invalidity disclosed]," and does not "itself advance[] a new or alternative means [for finding] the claims at issue invalid." *Genentech*, No. C 10-2037 LHK (PSG), 2012 WL 424985 at *2 (N.D. Cal. Feb. 8, 2012). Celgene was on notice of Defendants ' theory that a person of ordinary skill in the art would arrive at the claimed inventions through routine experimentation, and Defendants are permitted to further refine and develop previously disclosed theories of invalidity in their expert reports. In addition, neither of these references is used in the Park report for language that reads on specific claim elements. Defendants may use these references for the purposes described above and no amendment of the invalidity contentions is required.

iii. **The *Hodge* Reference, the *Wirth* Reference and the *Yaylayan* Reference**

The "Hodge" Reference, "Wirth" Reference, and "Yaylayan" References are cited in paragraphs 132 and 244 of the Park report. (ECF No. 738, Ex. D at ¶¶ 132 and 244.) Hodge is a journal article titled "Dehydrated Foods: Chemistry of Browning Reactions in Model Systems."[39] Wirth is a journal article titled "Maillard Reaction of Lactose and Fluoretine Hydrochloride, a Secondary Amine."[40] Yaylayan is a journal article titled "Classification of the Maillard Reaction: A Conceptual Approach."[41] These references are used by the Park report to support statements that "the incompatibility of reducing sugars, such as glucose . . . and compounds with amine functionalities was known, and was referred to as the "Maillard reaction." (ECF No. 738, Ex. D at ¶¶ 132 and 244.)

Celgene argues that these references are being used to show "lactose-free pomalidomide formulation as motivation to arrive at the claimed inventions." (ECF No. 738, Ex. E at p. 2, Reference Nos. 4-6.) Defendants respond that "we did disclose that the problems with lactose were known in the art, and they would motivate somebody to use fillers such as starch and mannitol." Defendants contend that they "had references disclosed on that," and that "[t]hese are additional references teaching the same." (Hrg. Tr. at 207:5-15.) Defendants 'invalidity contentions set out, *inter alia*, that cited prior art disclosed that '"[c]omposition and dosage forms that comprise an active ingredient that is a primary or secondary amine are preferably

[39] John E. Hodge, "Dehydrated Foods: Chemistry of Browning Reactions in Model Systems," 1(15) *J. Agric. Food Chem*. 928 (1953). (ECF No. 738, Ex. D at ¶132.)
[40] David D. Wirth, "Maillard Reaction of Lactose and Fluoretine Hydrochloride, a Secondary Amine, 87(1) *J. Pham Scis*. 31 (1998). (ECF No. 738, Ex. D at ¶132.)
[41] Varoujan A. Yaylayan, "Classification of the Maillard Reaction: A Conceptual Approach," 8 *Trends Food Sci Tech.* 13 (1997). (ECF No. 738, Ex. D at ¶132.)

lactose-free 'in order to avoid degradation of the active ingredient" and that "mannitol and starch had both been identified as alternative excipients to lactose that could address these concerns." (ECF No. 738, Ex. A at p. 65.)

The Hodge, Wirth and Yaylayan references are not introducing a new theory of obviousness altogether, but are being used as further support of Defendants 'previously-disclosed invalidity allegations that known issues with lactose would have motivated one of ordinary skill in the art to arrive at starch and mannitol. Thus, Defendants may use these references for the purposes described above and no amendment of the invalidity contentions is required.

iv. The *U.S. Pharmacopeia* Reference and the *Abrahamsson & Ungell* Reference

The *U.S. Pharmacopeia* Reference and the *Abrahamsson & Ungell* Reference are cited in paragraph 139 of the Park report. (ECF No. 738, Ex. D at ¶ 139.) U.S. Pharmacopeia is a compendium of drug information and Abrahamsson & Ungell is a book chapter titled "Biopharmaceutical Support in Formulation Development."[42] These references are used in the Park report to support the statement that dissolution testing methods were known in the art after the report discusses that "the dissolution characteristics of the dosage form can impact bioavailability." (ECF No. 738, Ex. D at ¶139.)

The Special Discovery Master finds that the U.S. Pharmacopeia and Abrahamsson & Ungell references do not require amendment of Defendants 'invalidity contentions for the same reasons discussed above for the Martin and FDA Guidance references.

v. The *FDA Inactive Ingredient Database* Reference

The FDA Inactive Ingredient Databased reference is used in paragraph 174 of the Park report for the statement that this database "lists the inactive ingredients in any component of a drug product other than the active ingredient in FDA approved drug products" and that "[o]nly inactive ingredients in the final dosage forms of drug products are in this database." (ECF No. 738, Ex. D at ¶174.)

The use of this reference in the Park report can be characterized as "background" or "foundational," and as such, no amendment of the invalidity contentions by Defendants is necessary.

vi. The *Lorenz* Reference; the *Morival* Reference, the *Pomalyst Capsules Product Information* Reference, the *Pomalyst Capsules Monograph* Reference, the *European Medicines Agency Science Medicines Health, Assessment Report* Reference, the *WO 2017/121530* Reference, and the *Virtual Computational Chemistry Laboratory* Reference

[42] Bertil Abrahamsson &Anna-Lena Ungell, "Biopharmaceutical Support in Formulation Development," *Pharmaceutical Preformulation and Formulation: A Practical Guide from Candidate Drug Selection to Commercial Dosage Form* 239 (Mark Gibson ed., 2004). (ECF No. 738, Ex. D at ¶139.)

The "Lorenz" reference is a chapter relating to "Cefaclor,"[43] which is a drug that the Park report uses as a comparison with pomalidomide for water-solubility. (ECF No. 738, Ex. D at ¶227.) The report discusses that the water-solubility of cefaclor is 10 mg/ml, while that of pomalidomide is practically insoluble at ≤0.1 mg/ml. (*Id*.) The report then explains that "[t]he cefalclor doses include 500 mg. . . and the upper dose of pomalidomide is 5 mg," and that "[f]rom the 100 times differences in the dose and water-solubility between the two drugs, a POSA would easily increase the amount of the diluent excipients for pomalidomide," and "the POSA would know that when applying the mannitol to starch ratio and excipient combinations disclosed in [a previously-disclosed cefaclor reference] to pomalidomide, which was known to be administered at a 100 times lower dose than cefaclor, the excipients would need to be adjusted accordingly to be a higher percentage to increase the total volume for making a formulation." (*Id*.)

The "Morival"[44] reference, the "Pomalyst Capsule Product Information" reference, the "Pomalyst Capsules Monograph" reference, the "European Medicines Agency Science Medicines Health, Assessment Report" reference, the "WO 2017/121530" reference, and the "Virtual Computational Chemistry Laboratory" reference are all used by the Park report to support the same theory. (ECF No. 738, Ex. D at ¶¶227, 243.) In paragraph 243 of the report, these references are cited as showing the low solubility of pomalidomide and to support the statement that a "POSA could have performed a simple solubility test." (ECF No. 738, Ex. D at ¶243.)

Celgene objects to the Park report's use of these references because it argues that they are used to show a "reason to modify prior-art disclosure to arrive at the claimed weight percentages based on solubility theory," and therefore uses an undisclosed prior art reference to argue that the patent's" pomalidomide claim elements" and "weight percent claim elements" are obvious. (ECF No. 738, Ex. E at p. 3, Reference Nos. 10-16.) At the hearing, Celgene also argued that "in the expert report, the first time they come back and they say, well, if you look at the solubility of the active and you do these calculations, you would know the differences, times it by a hundred, and you get to the claim elements," and that Defendants are "specifically relying on the Lorenz reference to get to the claim elements and a new theory and a contention that was not adequately explained, which courts have repeatedly ruled is out." (Hrg. Tr. at 208:16-25.) Celgene contends that "[t]his solubility theory that was never disclosed before, never supported by anything, now all of a sudden in expert reports we have seven references going towards it." (Hrg. Tr. at 213:16-19.)

Celgene asserts that including this is a new theory that requires amendment of the invalidity contentions, and that there would be great prejudice to Celgene if this material is allowed, because had Celgene been aware of this argument, it would have changed the way counsel took the depositions of 17 formulators in the case. (Hrg. Tr. at 220:10-222:15.)

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[43] Leslie J. Lorenz, "Cefaclor," 9 *Analytical Profiles of Drug Substances* 107 (1980). (ECF No. 738, Ex. D at ¶227.)

[44] Camille Morival et al., "Clinical pharmacokinetics of oral drugs in the treatment of multiple myeloma," 36 *Hematological Oncology* 505 (2017). (ECF No. 738, Ex. D at ¶243.)

Defendants argue that this is not a new theory, contending that this is an "old theory" that was disclosed; they argue that "Dr. Park [is] providing examples, illustrations of that contention that was disclosed." (Hrg. Tr. at 209:6-9.) Defendants point to page 82 of their invalidity contentions which they claim discloses that when a person of ordinary skill in the art "knows that there's a small amount of active ingredient, you know you have to have a higher amount of filler as opposed to seeking to use the excipients, formulations, and our ratios described in the references with pomalidomide would know that for active ingredients like pomalidomide, which the prior art teaches are present in relatively small amounts in the dosage form, mannitol and starch should be present in greater amounts." (Hrg. Tr. at 209:13-23.)

Defendants further argue that immediately before the objected to material in paragraph 227 of the Park report, Dr. Park opines that "[t]he POSA would have known that where there is a higher API amount, the excipient amount needs to be lower." (ECF No. 738, Ex. D at ¶ 227; Hrg. Tr. at 214:20-23.) Defendants argue that "[t]hat is in paragraph 82 of [Defendants'] contentions," where it says that "[a] POSA seeking to use the excipient[s,] formulations and/or ratios described in the[se] references with pomalidomide would know that for active ingredient like pomalidomide, which the prior art teaches are present in relatively small amounts in dosage forms [. . .] mannitol and starch should be present in greater amounts and thus a greater percentage of the total weight of the formulation." (Hrg. Tr. at 214:25-215:8; *see also* ECF No. 738, Ex. A at p. 82 n.7.)

Defendants continue "that the Lorenz reference is talking about a drug which has low water solubility and that pomalidomide is also a drug known to have low water solubility. So there's a relationship there. That second part was not in our contentions, but I don't call that a new theory or a new contention. That's an expert explanation, a reasonable elaboration of the contention that was disclosed." (*Id*. at 215:13-21.)

The Special Discovery Master finds that Defendants did previously disclosed their theory that when an active ingredient like pomalidomide is present in relatively small amounts in dosage forms, the amount of mannitol and starch should be present in greater amounts and thus comprise a greater percentage of the total weight of the formulation. However, the Defendants concede that their invalidity contentions did not state a theory based on the low solubility of pomalidomide. The theory of low solubility of pomalidomide is a second reason for having a small amount of pomalidomide in the formulation that requires amendment of the invalidity contentions. The continuation of the new theory based upon a calculation stemming from the "100 times differences in the dose and water-solubility between the two drugs [cefaclor and pomalidomide]," which would allegedly lead a POSA to arrive at some specific numbers that fall within weight percent claim elements of the asserted claims, also requires an amendment of the invalidity contentions. This use of Lorenz in the Park report should have been disclosed to Celgene previously, and cannot be used unless an amendment is granted after the requisite showing of cause is established.

Defendants must also move to amend their invalidity contentions if they seek to use the references regarding the characteristic of low solubility of pomalidomide in paragraph 243 supported by the Morival, Pomalyst Capsule Product Information, Pomalyst Capsules

Monograph, European Medicines Agency Science Medicines Health, Assessment Report reference, WO 2017/121530, and Virtual Computational Chemistry Laboratory references. While these references may be somewhat akin to the "foundational" prior art discussed above, they are being used for a new theory not set forth in the invalidity contentions.

vii. The "Capsule Information" References

The Special Discovery Master will refer to references bearing Bates numbers DEFS_POM_00023027-030, DEFS_POM_00023011-026, DEFS_POM_00024220-233, DEFS_POM_00024182-219, and DEFS_POM_00023986 as the "Capsule Information" references. (*See* ECF No. 738, Ex. E at p. 4, Reference Nos. 19-23.) These Capsule Information references are printouts from various internet sites providing information about several commercial drug capsule sizes that the Park report uses to support the opinion that a "POSA would also have been considering ease of administration and the amount of excipients necessary, and therefore, have a preference for smaller capsule sizes (e.g., 1-5) relative to larger sizes (e.g., 000 to 0)." (ECF No. 738, Ex. D at ¶331.) The Capsule Information references are used to show examples of "commercially available drugs where capsule size #5 to #3 is used for the dose amount of about 0.5 to 1 mg." (*Id*.) Celgene argues that these references go to the "weight percent claim elements." (ECF No. 738, Ex. E at p. 4, Reference Nos. 19-23.)

The Special Discovery Master finds that standard capsule sizes used in the industry fall within "background" material that provides a description of what is known by one of ordinary skill in the art, and thereby sets the stage for the skilled artisan's consideration of the prior art. As such, no amendment of the invalidity contentions is necessary to include the "Capsule Information" references in the Park report.

viii. The *Houghton* Reference

The "Houghton" reference[45] is a journal article cited in paragraph 362 of the Park report to support statements that microcrystalline cellulose ("MCC"), a pharmaceutical excipient, "exhibits significant changes in mechanical properties when moisture levels are above about 5%," and that the "properties of MCC can be unpredictable because MCC with different water content will behave differently." (ECF No. 738, Ex. D at ¶362.) Celgene argues that Defendants are using this reference for the purpose of showing "teaching away from other inactive ingredients than those in claimed formulation." (ECF No. 738, Ex. E, at p. 4, Reference No. 24.)

The Houghton reference in the Park report does not require amendment of Defendants ' invalidity contentions. Defendants 'invalidity contentions previously set out that a "POSA would have also been motivated to choose a combination of mannitol and starch" and laid out reasoning supporting such motivation. (*See, e.g.*, ECF No. 738, Ex. A at p. 69-72.) The use of Houghton is a more refined argument of the previously disclosed reason for why a person of ordinary skill in the art would have been motivated to use the excipients of the asserted claims

[45] Gregory E. Amidon & Michael E. Houghton, "The Effect of Moisture on the Mechanical and Powder Flow Properties of Microcrystalline Cellulose," 12 *Pharm Res.* 923 (1995). (ECF No. 738, Ex. D at ¶362.)

rather than other excipients. As discussed above, if a previously undisclosed motivation to combine is a "more specific articulation[] of previously disclosed [invalidity theories]" rather than a new invalidity theory altogether, it is permissible under the Local Patent Rules. *See Fujifilm*, 2015 WL 757575 at 32.

ix. The *Revlimid Label* Reference

The "Revlimid Label" reference is cited in paragraph 541 of the Park report in a section that argues that there were no unexpected results for the claimed formulations. (*See* ECF No. 738, Ex. D at ¶¶528-546.) Specifically, paragraph 241 cites the Revlimid Label to support the statement that "[t]he lactose-based formulation is substantially the same as the formulation that was adopted for Revlimid® (lenalidomide) and contains the same excipients." (*Id*. at ¶ 541.) Celgene argues that this use of the reference is now being used for the purpose of claiming obviousness based on "prior-art lenalidomide formulations." (ECF No. 738, Ex. E at p. 4, Reference No. 25.)

The Special Discovery Master finds that the Revlimid Label reference is being used in paragraph 541 to rebut Celgene arguments that "the inventions claimed in the '467 patent unexpectedly yielded a stable formulation." (*See* ECF No. 738, Ex. D at ¶541.) This use to rebut "unexpected results" will be allowed, with a strong cautionary note that the Revlimid label *cannot* be used as prior art in an effort to establish obviousness of the formulation claims. Such use of would require amendment of the invalidity contentions. Defendants cannot use the Revlimid Label beyond the one permissible purpose stated above.

x. Internal Celgene Documents

Celgene also objects to the Park report's use of twenty-five references that are referred to as "Internal Celgene Documents." (ECF No. 738, Ex. E at pp. 4-7, Reference Nos. 27-28; 33-55.)[46] Celgene argues that the inclusion of these references requires amendment of Defendants ' invalidity contentions because they are "internal Celgene document[s] that Defendants allege [are] prior art for [various asserted claims or claim elements or the 'previously-undisclosed public use theory']." (*Id*.) In their invalidity contentions, Defendants stated that they "reserve the right to use any of these [pomalidomide] formulations as prior art and to supplement these contentions after discovery of such formulations." (*Id*.)

Defendants respond that they are not relying on any of these references to argue that any claim element is obvious. (*See, e.g*., ECF No. 756 at 7.) Defendants argue instead that many of these Celgene documents (ECF No. 738, Ex. E, at pp. 4-7, Reference Nos. 41-55) "are used by Dr. Park to respond to Celgene's contention of unexpected results." (Hrg. Tr. at 233:13-19.)

To the extent that any of these or other Internal Celgene Documents (ECF No. 738, Ex. E at pp. 4-7, Reference Nos. 27-28; 33-55) are used as prior art formulations to establish that any claim elements of any asserted claims are obvious, Defendants must move to amend their

[46] As set out above, Celgene withdrew its objection to four of the Internal Celgene Documents used in the Park Report at the hearing. (ECF No. 738, Ex. E at p. 5, Reference Nos. 29-32.)

invalidity contentions. It cannot be overlooked that Defendants previously stated in their invalidity contentions that they would "supplement the[ir] contentions after discovery of such formulations." Celgene would therefore reasonably expect such supplementation if specific internal formulations would be used as prior art, and it would make the litigation less fair to allow Defendants to ignore this statement. Thus, Defendants must move to amend any uses of the Internal Celgene Documents as prior art.

For example, Reference No. 27[47] as it is used in paragraph 510 of the Park report as an example of a [redacted] requires amendment. (ECF No. 738, Ex. D at ¶510.) This also holds true for the use of this reference in paragraph 543. (*Id*. at ¶543.)

The same analysis applies to Reference No. 33[48] as used in paragraph 352 to show an example of [redacted] (*Id*. at ¶352), Reference No. 34 in paragraph 360 to support the statement that [redacted] (*Id*. at ¶360), as well as Reference Nos. 35-39[49] in paragraphs 369-373, 544, and 675 which are cited as examples of [redacted] (*Id*. at ¶¶369-373, *see also* ¶¶ 544, 675.) It is also applicable to Reference No. 40[50] as used in paragraph 469 as an example of a [redacted] (*Id*. at ¶469).

Defendants additionally cannot use the Internal Celgene Documents to support any "previously-undisclosed public use theory." (ECF No. 738, Ex. E at pp. 4-7, Reference Nos. 27-28; 33-55.) An introduction of such new theories of invalidity in an expert report is not permitted under the Local Patent Rules and would make the litigation less fair.

If Defendants wish to pursue using these references as prior art for particular claim elements of the formulations of the claimed invention (whether they explicitly refer to these references as prior art or not), or to support any previously-undisclosed theories of public use, they must amend their contentions.

b. *Previously-Disclosed References Used for New Purpose in the Park Report:*

Celgene also argues that the Park report improperly relies on certain references that were previously disclosed in Defendants' invalidity contentions, but for entirely new theories than those for which they were previously used. (*See, e.g*., ECF No. 738 at 3.)

[redacted]

i. Modern Pharmaceutics and *The Handbook of Pharmaceutical Excipients*

Celgene argues that that the previously-disclosed "Modern Pharmaceutics" reference is being used in the Park report for the new purpose of "capsule/ingredient densities as a reason to arrive at the claimed weight percentages and ingredients." (ECF No. 738, Ex. E, at p. 8, Reference No. 1.) Defendants previously disclosed "Modern Pharmaceutics" in their invalidity contentions, in part, as teaching "that it is important for, e.g., stability of a drug substance, for a formulator to know which excipients are compatible with an active ingredient, which is tested by mixing the active ingredient with a desired excipient," and that "the formulation of capsule powders needs to consider content uniformity in a capsule cavity, which is comparable to a tablet die." (ECF No. 7328, Ex. A at pp 48-49.)

In the Park report, Modern Pharmaceutics is cited to set out a table "that lists the standard volumes and approximate capacities for the traditional eight capsule sizes." (ECF No. 738, Ex. D at ¶165.) It is also cited to support statements that the "POSA would have known that the majority of the capsule fill would have to be diluent," in the context of discussing commercially available capsule sizes, and that the "selection of a capsule size depends on the total amount of excipients and their total volume." (*Id*. at ¶¶329-332.) Paragraph 332 also provides that "considering the fill weight density of 0.8 g/cm^3 from table 1 above in Modern Pharmaceutics, and the capsule sizes 5 to 1, the POSA would be considering a maximum fill weight from about 104 mg to about 400 mg." (*Id*. at ¶332.)

Celgene also argues that the Park report uses the Handbook of Pharmaceutical Excipients ("HPE") reference for the previously undisclosed purpose of "ingredient densities as a reason to arrive at the claimed weight percentages of ingredients." (ECF No. 738, Ex. E, at p. 8, Reference No. 1.) The HPE reference appears in paragraph 332[51] of the Park report. (ECF No. 738, Ex. D, at ¶332.) It is used to support the statement that "[t]he bulk densities of mannitol, pregelatinized starch and sodium stearyl fumarate powders are 0.430 gm/cm^3, 0.586 g/cm^3 and 0.2-0.35 g/cm^3, respectively while the tapped density for mannitol powder is 0.734 g/cm^3 and 0.8 g/cm^3 for mannitol granules, and the tapped density for pregelatinized starch is 0.879 g/cm^3." (*Id*.) It then continues that "[t]hus, considering the fill weight density of 0.8 g/cm^3 from Table 1 above in *Modern Pharmaceutics*, and the capsule sizes 5 to 1, the POSA would be considering a maximum fill weight from about 104 mg to about 400 mg." (*Id*.) This discussion occurs in the context of the Park report's opinion that the claim element "1) pomalidomide at an amount of 0.1 to 3 weight percent of the total weight of the composition" of the '467 patent is obvious. (*Id*.)

This use of the Modern Pharmaceutics and HPE references in the Park report is permitted. These references were previously disclosed as sources that the person of ordinary skill in the art would use when working on the formulation of capsules based on the properties of the ingredients and the size of the capsule used. Their use in the Park report builds upon this previously-disclosed information and supplies an complementary motivation for arriving at the weight percentages of the asserted claims. No amendment of invalidity contentions is needed.

[51] ECF No. 738, Ex. E, Ref. No. 3 lists ¶335 as the objected-to-paragraph, but this appears to be a typographical error, as the use of this reference in the Park report appears in ¶332.

ii. The "Zeldis Patents"

Celgene objects to the Park report using the "Zeldis Patents," which are the '262, '939, and '428 patents (the MoT patent), for the new purpose of establishing 103 obviousness, as well as "starch, mannitol, and pomalidomide claim elements" and "weight percent claim elements." (ECF No. 738, Ex. E, at p. 8, Reference No. 2.) Celgene argues that the Zeldis Patents were previously disclosed solely for obviousness-type double patenting, and not section 103 obviousness, and that they are being used now for 103 obviousness in Paragraphs 268, 269, 317, 327, 340, 348 and 388 of the Park report. (*Id*.)

As set out above, at the hearing, Defendants argued that they are not asserting the MoT patents as prior art for purposes of showing obviousness of the formulation patent claims (Hrg. Tr. at 141:16-20). Defendants also argued in their briefing that "[t]he objected-to-paragraphs refer only to the claims of the MoT Patents and the '569 patent," and that "these paragraphs refer to claims that issued for the '832 and '708 publications."[52] (ECF No. 756 at 9.) But these blanket assertions by Defendants are not enough to make a determination on the appropriateness of the specific uses of these references by Park. Rather, it is necessary to consider the actual citations to the Zeldis Patents in the Park report.

Paragraphs 268 and 269 of the Park report appear in a section titled "Scope and Content of the Prior Art" in a subsection addressing "prior art treatments and formulations." (ECF No. 738, EX. D at pp. 106-115.) Paragraph 268 states that "[t]he '832 publication and the '708 publication have the same disclosure as the Zeldis Patents asserted in this case (i.e., United States Patent Nos. 8,198,262;8,735,428; 8,673,939) which are listed in the Orange Book for Pomalyst®." (ECF No. 738, Ex. D, at ¶ 268.) Paragraph 269 provides that "[a]s issued, the Zeldis Patents asserted in this case include claims to pomalidomide administered in capsules of 1 mg, 2 mg, 3 mg, or 4 mg, wherein the capsule comprises pomalidomide, mannitol and pre-gelatinized starch." (Id. at ¶ 269.) The remainder of the objected-to-paragraphs appear in the Section of Dr. Park's report titled "The Asserted Claims of the '467 Patent are invalid in View of the Prior Art." (ECF No. 738, Ex. D, at pp. 129-160.) In Paragraph 317, addressing Park's opinion that claim 1 of the '467 patent is obvious, the Park report states that "[b]oth the '569 patent and the Zeldis Patents include claims to capsule forms, and these patents have the same specification as the '832 publication." (ECF No. 738, Ex. D, at ¶317.) Paragraphs 327, 340, 348, and 388 set out virtually the same statement that the "Zeldis Patents asserted in this case [also] include claims to capsule dosage forms containing 1 mg, 2mg, 3 mg, or 4 mg pomalidomide, wherein the capsule comprises the pomalidomide, mannitol and pre-gelatinized starch, and these patents have the same specification as the '832 publication." (*Id*. at ¶¶ 327, 340, 348, 388.)

In their invalidity contentions, Defendants previously alleged that "Claims 1-8 of the '467 Patent are invalid for obviousness-type double patenting over at least claims 10-13, 16, 18-19, 21-24, and 26-27 of the '262 patent, claims 8-11, 14, 16-17, 28, and 31 of the '939 patent, and claims 8-11, 13-14, 24, and 26 of the '428 patent." (ECF No. 738, Ex. A, at p. 96.) There is a separate section of the Park report that opines that "the asserted claims are invalid for

[52] As set out above, the Special Discovery Master has concluded that Defendants need to amend their invalidity contentions if they wish to use the '832 and '708 publication references.

obviousness-type double patenting," and that "the asserted claims of the '467 patent are not patentably distinct from claims of the Zeldis Patents." (ECF No. 738, Ex. D, pp. 233-250.)

The Special Discovery Master notes that as an initial matter, all objected-to-uses of the Zeldis Patents are intertwined with the '708 and '832 publication references, which as discussed above, themselves require amendment to be included in the Park report. In addition, five of the seven objected-to-paragraphs of the Park report that refer to the Zeldis Patents appear in the Section of that report specifically dealing with section 103 obviousness. (*See id*. at ¶¶ 327, 340, 348, 388.) The inclusion of the Zeldis Patents in these paragraphs of the Park report are puzzling if Defendants are not trying to use these references for the purpose of proving obviousness. This is particularly true in light of the fact that there is entirely separate section of the Park report explicitly devoted to the obviousness-type double patenting arguments relating to the Zeldis Patents.

The invalidity contentions filed by Defendants did not state any intent by Defendants to use the Zeldis Patents for the purpose of proving obviousness under Section 103. Moreover, the analysis of 103 obviousness and obviousness-type double patenting are two distinct legal issues. (*See Procter & Gamble Co. v. Teva Pharm. USA, Inc*., 566 F.3d 989, 999 (Fed. Cir. 2009) (noting that "statutory [103] obviousness compares claimed subject matter to the prior art, while non-statutory double patenting compares claims in an earlier patent to claims in a later patent or application," and that "double patenting does not require inquiry into a motivation to combine," and "double patenting does not require inquiry into objective criteria suggesting non-obviousness.")).

The manner in which the Park report is written, as contrasted with the invalidity contentions, blurs the boundaries of Defendants' arguments, and raises too many issues of "line-policing" by the Court to ensure that this does not become a back-door means to use the Zeldis Patents for the undisclosed purpose of attempting to prove Section 103 obviousness. Paragraphs 348 and 388 are illustrative of this problem. Defendants did not previously identify the Zeldis Patents (or their claims) as section 103 prior art to the formulation patents, and they may not start to do so now in the Park report, without first moving to amend their contentions and meeting the standard for such an amendment. While Defendants have preserved the use of the Zeldis Patents for the purpose of adducing proofs of their challenge to the patents at issue in this case on grounds of obviousness-type double patenting, the use of the above references in the challenged paragraphs of the Park report will not be permitted.

c. *Alleged New Obviousness Combinations Used in Ratain Report:*

Celgene also moves to strike alleged obviousness combinations that were not previously disclosed in Defendants' '467 patent invalidity contentions. (*See* ECF No. 738 at 3; SCF No. 738, Ex. E at p. 1, Combinations 1-2.) As discussed above with respect to the alleged new combinations of the Ratain report, Local Patent Rule 3.3(b) specifically requires "an explanation of why the prior art renders the asserted claim obvious, including an identification of ***any combinations*** of prior art showing obviousness." (L. Pat. R. 3.3(b).)

i. The Zeldis References (e.g., the '791 publication, the '791 publication, the '832 publication, WO 04/043377, the '708 publication), the Muller References (e.g., the '517 patent, the '471 patent, WO 98/03502, the '402 publication), Hwu, the D'Amato References (e.g., the '291 Patent, WO 02/064083), D'Angio, and Brady

As discussed above, the '708 and '832 publications may not be used as section103 prior art without amendment of Defendants' invalidity contentions. The combination of the '708 publication or the '832 publications with any other references, as well as the specific combination with the Muller References (e.g., the '517 patent, the '471 patent, WO 98/03502, the '402 publication), Hwu, the D'Amato References (e.g., the '291 Patent, WO 02/064083), D'Angio, and Brady, for purposes of proving obviousness was not a theory that Defendants stated in their invalidity contentions in this litigation. It would make the case less fair to find that the "blanket incorporation" language would permit this form of avoiding the Local Patent Rules to occur. If Defendants wish to pursue this previously undisclosed combination of prior art, they must attempt to amend their invalidity contentions to include these references.

ii. The '731 publication, Fujihara, WO 00/44351, the '247 patent, the '766 patent, the '733 patent, and Chang 2008

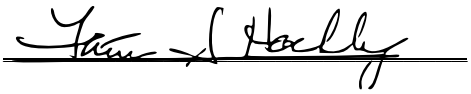
For the same reasons discussed above, these combinations of prior art references were also undisclosed in the invalidity contentions, and cannot be pursued absent meeting the standard for amending those contentions. This is the only way to meaningfully uphold the Local Patent Rules.

4. <u>Procedure Moving Forward</u>

As set out in Order No. 14, to the extent Defendants wish to file a motion to amend their invalidity contentions for any of the references that the Special Discovery Master determined require such amendment, they shall do so within 10 days of this order. Celgene may submit its response to any such motion within 10 days of Defendants' filing. Both parties are limited to 20 pages of briefing, double-spaced. This page limit is set to encourage a very careful selection of only those undisclosed prior art references, or undisclosed prior art combinations, that are really central to the defense of this case and are not cumulative. After receiving the parties' submissions, the Special Discovery Master will determine if a hearing is necessary, and then issue a Report & Recommendation to the Court as to whether the standard for amending the invalidity contentions has been met.

SO ORDERED

Dated: March 29, 2021



Hon. Faith S. Hochberg, U.S.D.J. (ret.)