IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

BRISTOL-MYERS SQUIBB CO., E. R. SQUIBB & SONS, L.L.C., ONO PHARMACEUTICAL CO., LTD., and TASUKU HONJO,

Plaintiff,

v.

MERCK & CO., INC. and MERCK SHARP & DOHME CORP.,

Defendant.

Civil Action No. 15-560-GMS

ORDER

WHEREAS, on August 31, 2015, the plaintiff Bristol-Myers Squibb Co., E. R. Squibb & Sons, L.L.C., Ono Pharmaceutical CO., LTD., and Tasuku Honjo, (collectively "Bristol-Myers") filed this patent infringement action against the defendant Merck & Co., Inc. and Merck Sharp & Dohme Corp., ("Merck"). (D.I. 1);

WHEREAS, presently before the court is Merck's Motion to Dismiss the Complaint. (D.I. 5, 6);

WHEREAS, the court having considered the motion, the parties' positions as set forth in their papers, as well as the applicable law;

IT IS HEREBY ORDERED THAT:

Merck's Motion to Dismiss the Complaint (D.I. 5) is DENIED.¹

¹ Federal Rule of Civil Procedure 12(b)(6) provides for dismissal where the plaintiff "fail[s] to state a claim upon which relief can be granted." Fed. R. Civ. P. 12(b)(6). "Threadbare recitals of the elements of a cause of action, supported by mere conclusory statements," are inadequate to state a claim. *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). In considering a motion to dismiss, the court "accept[s] all factual allegations as true, construe[s] the complaint in the light most favorable to the plaintiff, and

determine[s] whether, under any reasonable reading of the complaint, the plaintiff may be entitled to relief." *Phillips v. Cnty. of Allegheny*, 515 F.3d 224, 233 (3d Cir. 2008).

Merck argues that United States Patent No. 9,067,999 ("the '999 Patent") claims ineligible subject matter pursuant to 35 U.S.C. § 101. (D.I. 6 at 11.) According to Merck, the '999 Patent is directed to a natural phenomenon and the patent claims do not transform such natural phenomenon into a patenteligible invention because the claims contain no inventive concept. (*Id.* at 12.) Specifically, Merck asserts that the '999 patent claims the natural operation of the body's immune system via the PD-1 pathway. Merck claims that the '999 patent offers an administering step akin to the administering step found not to be patent eligible in *Mayo*. (*Id.* at 8); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.,* 132 S. Ct. 1289, 1298 (2012). A patent infringement claim that asserts infringement of claims that are invalid fails to state a claim on which relief can be granted. Therefore, Merck asserts that Bristol-Myers' infringement claims should be dismissed.

Bristol-Myers responds that the '999 patent is a method of treatment claim that merely relies on the human body's ability to respond to the disease. (D.I. 15 at 2.) Bristol-Myers further asserts that Merck's argument "misses the point that every method of therapeutic treatment at its basic level relies on the biological activity of the patient's immune system." (*Id.* at 9). According to Bristol-Myers, the '999 patent relies on the body's immune system via the PD-1 pathway, but adds the step of administering a composition of anti-PD-1 antibodies to induce the immune response. (D.I. 15 at 17).

Section 101 describes the general categories of patentable subject matter as "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C. § 101. There are, however, exceptions to these broad classifications. "Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice*, 134 S. Ct. at 2354 (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2216 (2013)). The contours of these exceptions have been the subject of much debate in recent years. *See id.* ("[W]e tread carefully in construing this exclusionary principle lest it swallow all of patent law. At some level, all inventions ... embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." (internal citation and quotations marks omitted)).

The Supreme Court's decision in *Alice* reaffirmed the framework first.outlined in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012), used to "distinguish[] patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice*, 134 S. Ct. at 2355.

First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, what else is there in the claims before us? To answer that question, we consider the elements of each claim both individually and as an ordered combination to determine whether the additional elements transform the nature of the claim into a patent-eligible application.

Id. (internal citations, quotations marks, and alterations omitted). Thus, the court must determine (1) if the patented technology touches upon ineligible subject matter, and (2) whether there are sufficient inventive elements such that the invention is "significantly more' than a patent on an ineligible concept." *See DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1255 (Fed. Cir. 2014) (quoting *Alice*, 134 S. Ct. at 2355); *see also Alice*, 134 S. Ct. at 2354 ("[A]n invention is not rendered ineligible for patent simply because it involves an abstract concept.").

The '999 patent claims treatment for lung cancer by using antibodies that inhibit signals of PD-1, PD-L1 or PD-L2 to activate immunity to the cancer virus. (D.I. 1-1 at col. 2:64–66.) The '999 patent relies on the scientific fact that blocking activation of the PD-1 pathway enables the patient's T cells to perform their normal biological activity of removing cancer cells. (D.I. 1 at 2.) By preventing PD-1 ligands from binding to the PD-1 receptor, the anti-PD-1 antibodies prevent the PD-1 pathway from

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suppressing the immune system, which, in turn, kills and clears the body of the "foreign" cancer cells using the body's own natural processes. (D.I. 1-1 at col.2:64–67.)

First, the court concludes that, contrary to Bristol-Myers contention, (D.I. 15 at 12), the '999 patent touches upon a natural phenomenon by using T cells to activate the immune system. The inventors relied on the fact that inhibiting "signals of PD-1, PD-L1 or PD-L2 inhibit cancer proliferation through the mechanism of the recovery and activation of immune function." (D.I. 1-1 at 27.) This interaction is a natural phenomenon.

Thus, the remaining question before the court is "whether the claims do significantly more than simply describe these natural relations. To put the matter more precisely, do the patent claims add *enough* to their statements of the correlations to allow the processes they describe to qualify as patent-eligible processes that *apply* natural laws?" *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1297 (2012).

When the factual allegations in the patent are taken as true and read in the light most favorable to Bristol-Myers, there are, at the very least, material factual disputes that cannot be resolved on a motion to dismiss. Merck contends that the process method consists of administering a synthetic agent through a single step to induce a natural reaction. (D.I. 6 at 12.) Bristol-Myers insists that administering anti-PD-1 antibodies is not a diagnostic step as in *Mayo*, but provides the treatment itself. (D.I. 15 at 11-12.) Whether the claims amount to an implementation step is a complicated factual determination that the court could better resolve after discovery. (D.I. 15 at 18.)

Additionally, the '999 patent is entitled to a presumption of validity under 35 U.S.C. § 282. Rarely can a patent infringement suit be dismissed at the pleading stage for lack of patentable subject matter. *See Tuxis Techs., LLC v. Amazon.com, Inc.*, No. 13-1771-RGA, 2014 WL 4382446, at *2 (D. Del. Sept. 3, 2014). ("At the motion to dismiss stage, a patent claim can be found directed towards patent-ineligible subject matter if the only plausible reading of the patent must be that there is clear and convincing evidence of ineligibility.") Here, the determination of the Patent Office that the '999 Patent was patent-eligible is presumed to be correct.

Pursuant to Federal Rule of Civil Procedure 12(b)(6), and after having considered the pleadings in the light most favorable to the Bristol-Myers, the court concludes that Merck has not met its burden to prove by clear and convincing evidence that the '999 Patent is invalid on its face for failing to cover patent-eligible subject matter under 35 U.S.C. § 101. If Rule 12(b)(6) is used to assert an affirmative defense, dismissal is appropriate only if the well-pleaded factual allegations in the complaint, construed in the light most favorable to the plaintiff, suffice to establish the defense. Here there is not clear and convincing evidence that ineligibility is the only plausible reading of the patent. For the reasons stated above, the court concludes that Merck has not met its burden. Accordingly, the court must deny Merck's Rule 12(b)(6) Motion to Dismiss. (D.I. 5.)