

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLORADO**

Civil Action No. 13-cv-01471-CMA-NYW

BRAIN SYNERGY INSTITUTE, LLC, d/b/a CARRICK BRAIN CENTERS,

Plaintiff,

v.

ULTRATHERA TECHNOLOGIES, INC., and  
KEVIN MAHER,

Defendants.

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**RECOMMENDATION OF UNITED STATES MAGISTRATE JUDGE**

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Magistrate Judge Nina Y. Wang

This matter comes before the court on Defendants' Motion for Judgment on the Pleadings Pursuant to Fed. R. Civ. P. 12(c) (the "Motion"). [#77, filed May 29, 2015]. Pursuant to the Order Referring Case dated June 10, 2013 [#5], the Reassignment dated February 9, 2015 [#75] and the Memorandum dated June 1, 2015 [#79], this matter was referred to the undersigned Magistrate Judge. After carefully reviewing the Motion and related briefing, the entire case file, and the applicable case law, I respectfully **RECOMMEND** that the Motion be **GRANTED IN PART** and **DENIED IN PART**.

## BACKGROUND

### I. Factual Background

United States Patent No. 6,800,062 (the “’062 Patent” or “Patent-in-Suit”), entitled “Comprehensive Vertigo Management” issued on October 5, 2004 and names John Epley as the inventor. [#1-1]. The patent explains that [d]izziness, including vertigo and imbalance, is one of the most common complaints presented to the physician.” [#1-1-at 54-55].<sup>1</sup> The inventions of the ’062 Patent are directed to the diagnosis and treatment of human disorders involving these symptoms. According to the ’062 Patent, these symptoms can most commonly be traced to abnormalities involving the vestibular<sup>2</sup> endorgans in the inner ear or, less frequently, to their associated neural pathways in the brainstem or cerebellum. [#1-1 at 1:56-61].

The technology disclosed by the ’062 Patent pertains to “Off-Axis Rotational Device” (“OARD”) therapy, which consists of placing a patient into a computer-controlled, off-axis rotating chair and producing carefully controlled rotations and movements that stimulate the patient’s vestibular system, thereby stimulating affected portions of the brain and providing improvements in both the symptoms and underlying causes of brain-based injuries and conditions. [#1 at ¶ 7]. In order to successfully

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<sup>1</sup> “[#1]” is an example of the convention I use to identify the docket number assigned to a specific paper by the court’s Electronic Case Filing system (“ECF”). I use this convention throughout this order. Citations to page numbers are to the numbers assigned by the ECF system. When the court cites to the Patent-in-Suit, it refers to the column and line numbers as assigned within the original patent.

<sup>2</sup> The vestibular system includes the parts of the inner ear and brain that help control balance and eye movements. <http://vestibular.org/understanding-vestibular-disorder/symptoms#sthash.mgzlpwk3.dpuf>

diagnose and treat patient with OARD therapy, the medical provider must gather and analyze data about the functioning of the vestibular system.

The vestibular endorgans normally sense either angular or linear acceleration of the head. [#1-1 at 1:61-63]. The '062 Patent describes that one type of vestibular-related action that is observed and tested in OARD therapy is nystagmus, an involuntary jerking motion of the eyes. Nystagmus can be observed under various conditions to determine whether the semicircular canals within the inner ear which sense angular acceleration are functioning properly. See [#1-1 at 1:54-2:25]. Otolithic-organ activity is another vestibular-related function that can be monitored using the invention of the '062 Patent. Otolithic-organ activity is tied to a subject's linear acceleration sensors that, among other things, are "principally responsible for gravitational perception." [#1-1 at 9:50-56]. In the Background of the Invention section of the '062 Patent, the patentee acknowledges that testing and treatment methods involving observing, identifying and treating abnormal human vestibular activity were known and used prior to the claimed inventions. See, e.g., [#1-1 at 2:26-36; 26:15-23].

The Background and Summary of the Invention section of the '062 Patent describes the "present invention" as "enter[ing] the scene with a remarkable and comprehensive capability to extract and acquire vestibular-related, medically informative data, and to present a simple, intuitive and clear picturing from such data of the abnormal behavior of a very wide range of a human subject's vestibular system." [#1-1 at 7:40-46]. The patent discloses both method and apparatus claims. The method claims are directed to "carrying out the indicated screening and definitive tests,"

in an automated and programmed fashion. See, e.g., [*id.* at 3:22-25]. The invention of the '062 Patent includes: “(a) an appropriate spatial maneuvering device which can be employed, either manually (i.e., either by direct hand manipulation, or by manual adjustment of a hand-operable control device, such as a joystick), or under more automated computer control, to place a subject, and in particular the head of that subject, in many different orientations in space, thus to induce vestibular activity; (b) a digital computer (or computer processor); (c) display-screen structure in an image-display zone; (d) various transducers (sensor devices, or data-stream structures) for generating electronic data-streams (referred to herein as first-category and as second-category data streams) that are supplied to, and are processable by, appropriate control algorithm structure(s) in the computer processor; and (e) one or more video cameras which are employed to view various scenes during operation of the system, and to supply . . . camera-derived information.” [*Id.* at 7:47-64].

The '062 Patent includes 18 claims. Independent claims 2 and 13 are of particular relevance to the issues in Defendants' Motion. Independent claim 2 is a method claim that discloses:

2. A method employable in relation to a chosen human subject, and during a period of position-related vestibular activity, for acquiring medically informative data, including computer-processible data, regarding the nature of a selected component of such activity, said method comprising

utilizing a sensor device which produces a data-stream that relates to spatial orientation, acquiring, during such a period, first-category data which contains information that effectively describes the de facto pattern and current condition of the chosen subject's spatial orientation,

additionally, during that same period, and employing another device which produces a data-stream that relates to subject behavior, acquiring second-category data which contains information that effectively describes the pattern and current condition of at least one selected type of the chosen subject's outwardly expressed behavior which is linked to the selected component of vestibular activity, and

supplying the first and second acquired data categories to data processing structure which includes an appropriate computer processor.

[#1-1 at cl. 2]. Independent claim 13 is an apparatus claim that states as follows:

13. Apparatus useable in relation to a chosen human subject for acquiring medically informative data, including computer-processible data, regarding the nature of a selected component of position-related vestibular activity which exists during a pre-selected time period, said apparatus, comprising

chosen-subject manipulation structure for establishing different spatial orientations (positions) for a chosen subject,

first data-stream structure operatively associated with said manipulation structure, operable, during the mentioned preselected time period, to provide computer employable first-category data which contains information that effectively describes the then de facto pattern and current state of the chosen subject's spatial orientation, and

second data-stream structure operatively associated with the chosen subject, operable, also during the mentioned preselected time period, to provide second-category data which contains information that effectively describes the pattern and current state of at least one selected type of the chosen subject's outwardly expressed behavior which is linked to the selected component of vestibular activity.

[#1-1 at cl. 13].

## **II. Procedural Background**

Plaintiff Brain Synergy Institute, LLC (“Plaintiff” or “BSI”) filed the Complaint in this case on June 7, 2013. [#1]. The Complaint alleges that Defendants UltraThera Technologies, Inc. and Kevin Maher (collectively, “Defendants”) infringe the ’062 Patent

by making, using, selling and/or offering to sell the GyroStim device (a rotating, computer-controlled chair used for diagnosing and treating vestibular-related disorders). [#1 at ¶¶ 14-19]. On December 5, 2014, after briefing by the parties and a *Markman* hearing, the Honorable Boyd N. Boland issued a Recommendation Regarding Claim Construction. [#69]. Magistrate Judge Boland's Recommendation, which construed 15 disputed claim terms, was adopted by the Honorable Christine M. Arguello on January 11, 2016. [#90]. With the final claim construction in place, this court now turns to the instant Motion, which seeks to invalidate the claims as patent-ineligible under 35 U.S.C. § 101. [#77]. In its Response in Opposition to Defendants' Motion ("Opposition"), Plaintiff contends that not only does Defendants' Motion fail substantively, it should also be denied as premature because there are underlying factual issues that have not yet been resolved. [#85].

## LEGAL STANDARDS

### I. Fed. R. Civ. P. 12(c)

In the Tenth Circuit, a motion for judgment on the pleadings under Fed. R. Civ. P. 12(c) is governed by the same standard of review applicable to a motion to dismiss under Fed. R. Civ. P. 12(b)(6). *Nelson v. State Farm Mut. Auto Ins. Co.*, 419 F.3d 1117, 1119 (10th Cir. 2005). Facts are viewed in the light most favorable to the plaintiff, and all reasonable inferences are drawn in the plaintiff's favor. *Dias v. City & Cnty. of Denver*, 567 F.3d 1169, 1178 (10th Cir. 2009). "Judgment on the pleadings should not be granted 'unless the moving party has clearly established that no material issue of fact remains to be resolved and the party is entitled to judgment as a matter of law.'"

*Park Univ. Enters., Inc. v. Am. Cas. Co.*, 442 F.3d 1239, 1244 (10th Cir. 2006) (quoting *United States v. Any & All Radio Station Transmission Equip.*, 207 F.3d 458, 462 (8th Cir. 2000)). Fed. R. Civ. P. 12(d) further provides that “[i]f, on a motion under Rule 12(b)(6) or 12(c), matters outside the pleadings are presented to and not excluded by the court, the motion must be treated as one for summary judgment under Rule 56.” Hence, under Rule 12(c), a court should consider only matters referred to or incorporated by reference in the pleadings or attached to the answer or complaint. *Park Univ.*, 442 F.3d at 1244; *GFF Corp. v. Associated Wholesale Grocers, Inc.*, 130 F.3d 1381, 1384-85 (10th Cir. 1997).

## **II. Patent-Eligibility Under 35 U.S.C. § 101**

Section 101 of the Patent Act, 35 U.S.C. § 101, specifies what types of subject matter are eligible for patent protection. The Supreme Court has long held that Section 101 “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (internal quotation marks omitted). These exceptions represent “the basic tools of scientific and technological work.” *Alice*, 134 S. Ct. at 2354 (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). “Monopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it, thereby thwarting the primary object of the patent laws.” *Id.* (citation and quotation omitted). Accordingly, courts must distinguish between patents that claim the “building blocks of human ingenuity and those that integrate the building blocks into something more.” *Id.* (citation and quotation

omitted). In *Alice*, the Supreme Court clarified that “[w]holly generic computer implementation is not generally the sort of ‘additional feature’ that provides any ‘practical assurance that the process is more than a drafting effort designed to monopolize the abstract idea itself.” 134 S. Ct. at 2350-51 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1297 (2012)).

“In *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. \_\_\_\_, [132 S. Ct. 1289] (2012), [the Supreme Court] set forth a framework for distinguishing 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 2354. The *Mayo/Alice* test is comprised of two consecutive steps. First, courts must “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If the answer is “yes,” courts must then ask: “[w]hat else is there in the claims before us?” *Id.* In answering that question, courts must “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 quotation marks omitted). Put another way, the *Mayo/Alice* test directs this court to consider whether a claim at issue discloses an inventive concept, i.e., an element or combination of elements that is sufficient to transform an abstract idea into a patent-eligible application of that idea. See *Vehicle Intelligence & Safety, LLC v. Mercedes-Benz USA, LLC*, 2015 WL 9461707, at \*4 (Fed. Cir. Dec. 28, 2015).



### III. Fed. R. Civ. P. 12(c) and Patent Eligibility

Whether a patent satisfies the requirements of 35 U.S.C. § 101 is an issue of law that may be properly decided in a motion to dismiss or a motion for judgment on the pleadings under Fed. R. Civ. P. 12(c). See *In re Bilski*, 545 F.3d 943, 950-51 (Fed. Cir. 2008), *aff'd*, *Bilski v. Kappos*, 561 U.S. 593 (2010) (“*Bilski I*”); *Research Corp. Techs., Inc. v. Microsoft Corp.*, 627 F.3d 859, 867 (Fed. Cir. 2010). The patent eligibility inquiry is governed by the language of the patent claims, and where the claims have been construed by the court, that claim construction governs. See *Bilski I*, 545 F.3d at 950-51; *Vehicle Intelligence & Safety LLC v. Mercedes-Benz USA, LLC*, 78 F. Supp. 3d 884 (N.D. Ill. 2015) (granting a renewed motion for judgment on the pleadings after claim construction). Nonetheless, in some circumstances it may be inappropriate to rule on patent-eligibility on a motion to dismiss under Rule 12 or on a motion for summary judgment because of unresolved factual issues. See, e.g., *Potter Voice Techs., LLC v. Apple Inc.*, No. C 13-1710 CW, 2015 WL 5672598, at \*5 (N.D. Cal. June 11, 2015) (declining to grant summary judgment on claims that “colorably involve[d] an inventive concept”). Indeed, this court heeds the Federal Circuit’s caution that “dismissal for lack of patentable subject matter at the pleading stage should be “the exception, not the rule.” *Kenexa BrassRing, Inc. v. HireAbility.com, LLC*, No. 12-10943-FDS, 2015 WL 1943826, at \*2 (D. Mass. Apr. 28, 2015) (citing *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1338-39 (Fed. Cir. 2013), *vacated on other grounds by WildTangent, Inc. v. Ultramercial, LLC*, 134 S. Ct. 2870 (2014)).

## **ANALYSIS**

### **I. Preliminary Issues**

Before turning to the substantive analysis of whether some or all of the claims of the Patent-in-Suit are invalid, this court addresses two preliminary issues: (1) whether claim 2 is a representative claim for the purposes of the instant Motion; and (2) whether a Rule 12(c) motion for judgment on the pleadings is an appropriate vehicle to address Defendants' arguments regarding invalidity of the claims at issue.

#### **A. Whether Claim 2 is an Appropriate Representative Claim**

In their opening brief in support of the Motion, Defendants present arguments pertaining only to the patent-ineligibility of independent claims 2 and 13 of the '062 Patent. See [#77]. Defendants argue in their opening brief that "the Court only needs to analyze Claim 2, because the various claim types such as the method and system claims directed to the same invention should rise and fall together." [#77 at 24]. They do not, however, address any of the dependent claims or provide a substantive explanation for why it would be appropriate to consider claim 2 as a representative claim for all of the other asserted claims. In its Opposition to the Motion, Plaintiff states that it alleges that Defendants infringe claims 2-6, 8-10, and 13-16 (the "Asserted Claims"), and Defendants have failed to address, let alone sustain their burden of establishing invalidity, of the claims that depend from claims 2 and 13, i.e., claims 3-6, 8-10, and 12-16. [#85 at 8]. In their Reply, Defendants attempt to argue that all of the Asserted Claims are invalid because claim 2 is an appropriate representative claim, and for the first time, addresses the dependent claims individually. [#88 at 3-4].

First, the court rejects any suggestion that a finding of the invalidity of an independent claim on patent ineligibility grounds necessarily means the claims that depend from that independent claim are also invalid. The law provides that each claim of a patent (whether in independent, dependent, or multiple dependent form) is presumed valid<sup>3</sup> independently of the validity of other claims; dependent claims are presumed valid even if dependent on an invalid claim. 35 U.S.C. § 282(a). Like other invalidity analyses, this court must consider individual claims (whether independent, dependent, or multi-dependent) separately, unless the moving party can establish (or the parties stipulate) that a particular claim is representative of others.

Second, to the extent that Defendants' argument is properly before the court,<sup>4</sup> Defendants have failed to persuade this court that claim 2 is representative. In certain circumstances, it is appropriate to consider invalidity arguments using a representative

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<sup>3</sup> There has been significant discussion as to whether a presumption of validity attaches when a court is determining whether a patent claim is directed at eligible matter. *Ultramercial*, 772 F.3d at 720-21 (Mayer, J., concurring) (“Although the Supreme Court has taken up several section 101 cases in recent years, it has never mentioned—much less applied—any presumption of eligibility. The reasonable inference, therefore, is that while a presumption of validity attaches in many contexts, . . . no equivalent presumption of eligibility applies in the section 101 calculus.” (citation omitted)). Given the fact that the presumption is codified within the Patent Act, and neither the Federal Circuit nor the Supreme Court has expressly rejected such presumption, this court

<sup>4</sup> Defendants did not make any substantive argument addressing the representative nature of claim 2 until their Reply brief. Compare [#77] with [#88 at 2-3]. Raising an issue for the first time on reply is improper; reply briefs are not meant to provide the moving party with a new opportunity to present other issues for the court's consideration. See *Angell v. Fairmount Fire Protection Dist.*, 907 F. Supp. 2d 1242, 1251 n.9 (D. Colo. 2012) (citing *Home Design Servs., Inc. v. B & B Custom Homes*, 509 F. Supp. 2d 968, 971 (D.Colo. 2007)). Nevertheless, for the sake of completeness, this court addresses Defendants' argument that claim 2 is representative of the other Asserted Claims.

claim. See, e.g., *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014) (finding it appropriate for a district court to consider a representative independent claim where “all of the claims [were] substantially similar and linked to the same abstract idea” (internal citation omitted)). However, the court declines to do so here.

In comparing independent claim 13 and the asserted dependent claims to claim 2, this court does not conclude that all of the claims are substantially similar to claim 2. For example, the claims that depend from claim 2 add limitations pertaining to the type of vestibular activity the subject undergoes while the data is being collected and the types of modifications that are used to denormalize the subject’s sensory perception capabilities during the data collection. See, e.g., [#1-1 at cls. 3, 4, 5]. As Plaintiff identified in its Opposition, the claims that depend from claim 2 include additional substantive limitations which may affect the outcome of the *Alice/Mayo* two-step analysis. Claim 13 is also distinct from claim 2, in that it is an apparatus claim that discloses structure beyond what is contemplated in claim 2. [*Id.* at cl. 13]. Its own dependent claims also appear to recite limitations that distinguish them from independent claim 13.

Moreover, even assuming that each of the dependent claims is directed to an abstract idea Defendants provide only a cursory analysis of how each of the dependent claims lack the inventive concept required under step two of the *Alice/Mayo* framework. See [#88 at 3-5]. The arguments introduced in Defendants’ Reply do not satisfy their burden to establish ineligibility of these claims by clear and convincing evidence. *CLS*

*Bank Int'l v. Alice Corp. Pty.*, 717 F.3d 1269, 1304-05 (Fed. Cir. 2013) *aff'd*, 134 S. Ct. 2347 (2014) (“[A]ny attack on an issued patent based on a challenge to the eligibility of the subject matter must be proven by clear and convincing evidence.”). This court further declines to extend its analysis beyond the arguments as set forth by the Parties, particularly given that the Parties are represented by able counsel. *See United States v. Davis*, 622 F. App’x 758, 759 (10th Cir. 2015) (“[I]t is not this court’s duty, after all, to make arguments for a litigant that he has not made for himself”); *Phillips v. Hillcrest Med. Ctr.*, 244 F.3d 790, 800 n.10 (10th Cir. 2001) (observing that the court has no obligation to make arguments or perform research on behalf of litigants). Therefore, this court simply concludes that at this juncture, Defendants have failed to establish that they are entitled to judgment as a matter of law in the patent-ineligibility of the dependent claims of the ’062 Patent, including the claims that depend from claim 2. *See Park Univ.*, 442 F.3d at 1244 (“Judgment on the pleadings should not be granted ‘unless the moving party has clearly established that no material issue of fact remains to be resolved and the party is entitled to judgment as a matter of law.’”) (quoting *Any & All Radio Station Transmission Equip.*, 207 F.3d at 462). Therefore, this court finds that, based on the record before it, Defendants have failed to establish that claim 2 is an appropriate representative claim and respectfully recommends that this Motion be denied as to dependent claims 3-6, 8-10, 12, and 14-16. The remainder of this Recommendation focuses on independent claims 2 and 13.

**B. Propriety of Resolving Questions of Patent-Eligibility on a Motion for Judgment on the Pleadings**

BSI also urges the court to deny Defendants' Motion because it is premature and there are underlying factual disputes which must be resolved prior to deciding the patent eligibility dispute. [#85 at 35-36]. Plaintiff cites unresolved disputes between the Parties about whether the claim limitations were routine or conventional at the time of the invention, whether the claims preempt an abstract idea, and whether the claimed limitations alone or in combination are disclosed by the prior art. [#85 at 35]. Here, the court is not persuaded that substantive consideration of the pending Motion as to claims 2 and 13 of the '062 Patent is premature. While BSI argues that this court should defer determining patent eligibility for a more complete factual record [#85 at 35-36], it fails to identify any specific factual dispute that has any material impact on determining whether claims 2 and 13 of the '062 Patent are patent-eligible at this time. BSI contends that "the parties dispute whether the claimed limitations were routine or conventional at the time of the patent's inventions, whether the claims preempt an abstract idea, and whether the claimed limitations alone or in combination are disclosed by the prior art." [*Id.* at 35]. Yet apart from this general argument, BSI has failed to articulate any specific limitation of either claim 2 or 13 that turns on an identified factual issue. Indeed, to the extent that it concludes that a factual dispute exists, the court will simply deny judgment on the pleadings as to that claim.

Accordingly, this court now turns to considering whether independent claims 2 and 13 of the '062 Patent are invalid as a matter of law under 35 U.S.C. § 101. In doing so, this court accepts all well-pleaded factual allegations in the Complaint in the light

most favorable to BSI. *Ultramercial*, 722 F.3d at 1338. Defendants raise two arguments about the claims of the '062 Patent being patent-ineligible under Section 101. First, Defendants argue that claims 2 and 13 are directed to abstract ideas. [#77 at 11]. Second, Defendants argue that the claims are directed to laws of nature and natural phenomena. [#77 at 18]. The court will address each claim separately.

## **II. Patent Eligibility of Claim 2 of the '062 Patent**

### **A. Step One: Is Claim 2 Directed to a Patent-Ineligible Concept?**

#### **1. Abstract Idea**

The first step in the Section 101 analysis is to determine whether the claims are directed to an abstract idea. An idea is abstract if it has “no particular concrete or tangible form.” *Ultramercial*, 772 F.3d at 715. The *Alice* court expressly declined to “labor to delimit the precise contours of the ‘abstract ideas’ category.” 134 S. Ct. at 2357. “An abstract idea might be a ‘preexisting, fundamental truth’ like a mathematical equation, or even a ‘method of organizing human activity’ or ‘longstanding commercial practice,’ like hedging risk or using intermediaries to settle transactions.” *HealthTrio, LLC v. Aetna, Inc.*, No. 12-cv-03229-REB-MJW, 2015 WL 4005985, at \*3 (D. Colo. June 17, 2015) *rep’t & rec. adopted*, No. 12-CV-03229-REB-MJW, 2015 WL 5675303 (D. Colo. Sept. 28, 2015) (quoting *Alice*, 134 S. Ct. at 2356). As an example of an abstract idea, the Federal Circuit invalidated claims directed toward the “collection and organization of data.” *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011).

Claim 2 is directed to a method of “acquiring medically informative data” comprising steps of “utilizing a sensor device which produces a data-stream that relates to spatial orientation,” and during the same time period, “employing another device which produces a data-stream that relates to subject behavior.” [#1-1 at cl. 2]. This data is then supplied to a “data processing structure which includes an appropriate computer processor.” [#1-1 at 29:13-15]. Defendants argue that claim 2 is directed to the abstract idea of “acquiring medically informative data.” [#77 at 11]. They state that this abstract idea is carried out in claim 2 “using a conventional sensor device to produce a data-stream relating to spatial orientation, employing another conventional device to produce a second data-stream relating to subject behavior, and supplying both data streams to a computer.” [#77 at 11 (citing '062 Patent at 28:61-28:63)]. Plaintiff disputes this characterization, arguing that Defendants’ characterization is too simplistic, glosses over numerous limitations in the claim, and disregards the patent’s specification. [#85 at 15].

Claim 2, even considering the details of the limitations therein, claims nothing more than a method of using sensors to collect two different streams of data and transmitting them to a data processor, which is a generic computer, for processing. [#1-1 at 28:61-29:15]. As such, it is analogous to claims directed toward data gathering and testing that courts have consistently determined to be patent-ineligible abstract ideas. *See, e.g., In re Grams*, 888 F.2d 835, 839 (Fed. Cir. 1989) (holding that “[g]iven that the method of solving a mathematical equation may not be the subject of patent protection, it follows that the addition of the old and necessary antecedent steps of establishing



values for the variables in the equation cannot convert the unpatentable method to patentable subject matter”); *Vehicle Intelligence & Safety, LLC v. Mercedes-Benz USA, LLC*, 78 F. Supp. 3d at 888 (N.D. Ill. 2015) (concluding that “testing operators of any kind of moving equipment for any kind of physical or mental impairment” is an abstract idea), *aff’d*, 2015 WL 9461707 (Fed. Cir. 2015); *SmartGene, Inc. v. Advanced Biological Labs., SA*, 852 F. Supp. 2d 42, 57 (D.D.C. 2012). Indeed, claim 2 does not even disclose a mathematical algorithm or any other method of processing the gathered data (which also have also been determined to be abstract); rather, it merely discloses a conventional method of collecting data to be supplied to a generic data processing structure. [#1-1 at cl. 2]. Therefore, this court finds that claim 2 is at its core directed to the broad, abstract idea of acquiring and processing medically informative data from two different, known sources in a chosen human subject.

## **2. Law of Nature**

In addition to arguing that the asserted claims are patent-ineligible under Section 101 because they embody an abstract idea, Defendants also argue that the claims are directed to patent-ineligible laws of nature and natural phenomena, in particular measuring spatial orientation and behavioral responses to that spatial orientation. [#77 at 18]. Defendants seek to analogize the claims in this case to those in *Mayo* and in *PerkinElmer, Inc. v. Intema Ltd.*, 496 Fed. App’x 65, 70 (Fed. Cir. 2012). The court disagrees with Defendants’ argument that the claims are directed to patent-ineligible laws of nature and natural phenomena. See [#77 at 18].

In *Mayo*, the Supreme Court found claims to “relationships between concentrations of certain metabolites in the blood and the likelihood that a dosage . . . will prove ineffective or cause harm” to not be patent-eligible because they generally recited a law of nature. *Mayo*, 132 S. Ct. at 1296. The Supreme Court found that the claims were directed to the correlation that doctors had long known between levels of the metabolites in the blood and the likelihood that a given dosage was too low or high. *Mayo*, 132 S. Ct. at 1296. The principle the Supreme Court set out was that “a patent that simply describes that relation sets forth a natural law.” *Mayo*, 132 S. Ct. at 1296.

In contrast to the claims in *Mayo*, claim 2 of the '062 Patent is not an attempt to gain patent protection over a relationship or correlation between a subject's spatial orientation and behavioral responses, or a conclusion that can be drawn from the two inputs. Claim 2 simply states a method for gathering data and processing it using a computer. Indeed, as noted above, claim 2 fails to even disclose how the data regarding a subject's spatial orientation and behavioral responses should be processed or interpreted. [#1-1 at cl. 2].

The claims in the '062 Patent are also not analogous to those in *PerkinElmer v. Intema Ltd.* In *PerkinElmer*, the claims at issue pertained to measuring data and comparing that data to known marker levels in Down's syndrome pregnancies. 496 Fed. App'x at 67. The claims were impermissibly directed to a law of nature: “the relationship between screening marker levels and the risk of fetal Down's syndrome.” *Id.* at 70. Again, the Asserted Claims of the '062 Patent do not purport to draw any specified correlation between spatial orientation and behavioral response—the claim

pertains only to the data gathering and processing steps, not any analysis or correlation resulting from those steps.

For the foregoing reasons, the court finds that claim 2 is directed to an abstract idea, but not a law of nature or natural phenomenon.

**B. Step Two: Does Claim 2 Amount to Significantly More Than the Abstract Idea Itself?**

Having determined that claim 2 is directed to an abstract idea, the court must determine whether the patent includes “additional features to ensure that the claim[s] are] more than a drafting effort designed to monopolize the abstract idea.” *Alice*, 134 S. Ct. at 2357 (citation omitted). “To answer [this] second question, we consider the limitations of each claim both individually and as an ordered combination to determine whether the additional limitations transform the nature of the claim into a patent-eligible application of a patent-ineligible concept.” *Versata Dev. Grp., Inc. v. SAP Amer., Inc.*, 793 F.3d 1306, 1331-31 (Fed. Cir. 2015). “The second step in the analysis requires us to determine whether the claims do significantly more than simply describe that abstract method.” *Ultramercial*, 772 F.3d at 715 (citing *Mayo*, 132 S. Ct. at 1297). The Supreme Court has described step two of the subject-matter eligibility analysis as “a search for an inventive concept—i.e., an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Alice*, 134 S. Ct. at 2355 (internal quotation marks omitted).

The “inventive concept” is lacking where “each step does no more than require a generic computer to perform generic computer functions.” *Alice*, 134 S. Ct. at 2359. Instead, there must be “additional features” that “provide practical assurance that the

process is more than a drafting effort designed to monopolize the [abstract idea] itself.” *Mayo*, 132 S. Ct. at 1297. “Given the ubiquity of computers, . . . wholly generic computer implementation is not generally the sort of ‘additional featur[e]’ that can provide such “practical assurance.” *Alice*, 134 S. Ct. at 2358 (quoting *Mayo*, 132 S. Ct. at 1297). A claim that “recite[s] a handful of generic computer components configured to implement the [abstract] idea” is insufficient to transform an abstract idea into a patentable invention at step two. See *Alice*, 134 S. Ct. at 2351. Moreover, the addition of a computer to perform calculations, retrieve data, and visually display images is nothing more than “post-solution activity” that cannot render the process patentable. *Parker v. Flook*, 437 U.S. 584, 590 (1978).

Plaintiff argues that the patent’s inventive concept “relates to a unique vertigo management system and methodology that enables a physician to diagnose, treat, and rehabilitate patients in a novel manner by stimulating the vestibular system and using various structures to track and generate different data streams that are supplied to a processor to draw correlations for the physician.” [#84 at 4]. Nevertheless, the court does not find anything in claim 2 that is an “‘inventive concept’ sufficient to ‘transform’ the abstract idea into a patent-eligible application.” *Alice*, 134 S. Ct. at 2357. Here, the court must disregard “well-understood, routine, conventional activity.” *Mayo*, 132 S. Ct. at 1299. In order to be considered inventive, a concept must go beyond “well-understood, routine, conventional activity, previously engaged in by those in the field.” *Mayo*, 132 S. Ct. at 1299. Claim 2 does nothing more than add a generic use of a computer to the abstract idea of collecting and monitoring medical data from two

different streams during the same time period. See [#1-1 at cl. 2]. Nor does the limitation of claim 2 to a particular point in time or to tracking vestibular-related activity save it from abstraction. See *Bilski v. Kappos*, 130 S. Ct. 3230 (2010) (“prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of [a] formula to a particular technological environment”) (internal quotation omitted).

Accordingly, this court finds that claim 2 is not directed to patent-eligible subject matter under 35 U.S.C. § 101, and respectfully recommends that the Motion be granted with respect to claim 2.

### **III. Patent Eligibility of Claim 13 of the '062 Patent**

The court turns next to independent claim 13. Independent claim 13 is an apparatus claim that states as follows:

13. Apparatus useable in relation to a chosen human subject for acquiring medically informative data, including computer-processible data, regarding the nature of a selected component of position-related vestibular activity which exists during a pre-selected time period, said apparatus, comprising

chosen-subject manipulation structure for establishing different spatial orientations (positions) for a chosen subject,

first data-stream structure operatively associated with said manipulation structure, operable, during the mentioned preselected time period, to provide computer employable first-category data which contains information that effectively describes the then de facto pattern and current state of the chosen subject's spatial orientation, and

second data-stream structure operatively associated with the chosen subject, operable, also during the mentioned preselected time period, to provide second-category data which contains information that effectively describes the pattern and current state of at least one selected type of the chosen subject's outwardly expressed behavior which is linked to the selected component of vestibular activity.

[#1-1 at cl. 13].

The court finds that this claim is not an abstract idea, law of nature or natural phenomena precluded from patent eligibility under 35 U.S.C. 101. Rather, independent claim 13 is specifically directed to a “machine,” which Section 101 explicitly states is patent-eligible subject matter. Claim 13 claims an “[a]pparatus useable in relation to a chosen human subject for acquiring medically informative data” which includes a “chosen-subject manipulation structure,” a “first data-stream structure,” and a “second data-stream structure.” [#1-1 at 30:19-42]. Examples of these structures are described in the specification and drawing; indeed, Defendants attempted to construe the “first data-stream structure” and the “second data-stream structure” to be limited to accelerometers. [#47-1 at 3, #69 at 17, 20]. The preferred embodiment of the “chosen-subject manipulation structure” is described as “a chair which is appropriately mounted within a compound ring structure that is maneuverable angularly, and preferably under computer control, to position and move a subject’s head into substantially all planes of orientation.” [#1-1 at 8:13-18].

Section 101 specifically states that an inventor may obtain a patent for “any new and useful process, *machine*, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101 (emphasis added). “In choosing such expansive terms . . . modified by the comprehensive ‘any,’ Congress plainly contemplated that the patent laws would be given wide scope.” *Bilski v. Kappos*, 561 U.S. 593, 601 (2010) (quoting *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980)). “To qualify as a machine under section 101, the claimed invention must be a ‘concrete thing, consisting of parts, or of certain devices and combination of devices.’” *Digitech*

*Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1348-49 (Fed. Cir. 2014) (quoting *Burr v. Duryee*, 68 U.S. 531, 570 (1863)).

Claim 13 is specifically limited to a particular machine made from specific elements, an “apparatus useable in relation to a chosen human subject for acquiring medically informative data,” which includes a “chosen-subject manipulation structure for establishing different spatial orientations (positions) for a chosen subject” and a first and second “data-stream structure.” [#1-1 at 30:19-32]. Neither party appears to dispute that an “apparatus useable in relation to a chosen human subject” which includes a “chosen-subject manipulation structure” is a concrete thing. Indeed, Defendants’ argument regarding the “chosen-subject manipulation structure” centers around the idea that this structure is so broadly defined in the specification that it could be any number of generic structures known in the field of the invention. [#77 at 25]. The court is not persuaded by Defendants’ arguments that the “chosen-subject manipulation structure” is so generic that it places these claims within the realm of attempting to monopolize the abstract idea of acquiring medically informative data pertaining to vestibular-related data. See [#77 at 25]. The court finds that the “chosen-subject manipulation structure” is not the type of “purely functional and generic” structure that would leave this claim in the world of abstraction. See *Alice*, 134 S. Ct. at 2360. Any concerns that Defendants have about the broadness of the term “chosen-subject manipulation structure” is claimed are better addressed in the context of other invalidity arguments, such as ones based on anticipation or obviousness.

Accordingly, the court recommends denying Defendants' Motion for Judgment on the Pleadings as it pertains to independent claim 13.

### CONCLUSION

For the foregoing reasons, this court respectfully **RECOMMENDS** that Defendant's Motion for Judgment on the Pleadings Pursuant to Fed. R. Civ. P. 12(c) [#77] be **GRANTED IN PART** with respect to claim 2 of the '062 Patent and **DENIED IN PART** with respect to claims 3-6, 8-10, and 13-16 of the '062 Patent.<sup>5</sup>

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<sup>5</sup> Within fourteen days after service of a copy of the Recommendation, any party may serve and file written objections to the Magistrate Judge's proposed findings and recommendations with the Clerk of the United States District Court for the District of Colorado. 28 U.S.C. § 636(b)(1); Fed. R. Civ. P. 72(b); *In re Griego*, 64 F.3d 580, 583 (10th Cir. 1995). A general objection that does not put the District Court on notice of the basis for the objection will not preserve the objection for *de novo* review. "[A] party's objections to the magistrate judge's report and recommendation must be both timely and specific to preserve an issue for *de novo* review by the district court or for appellate review." *United States v. One Parcel of Real Prop. Known As 2121 E. 30th St., Tulsa, Okla.*, 73 F.3d 1057, 1060 (10th Cir. 1996). Failure to make timely objections may bar *de novo* review by the District Judge of the Magistrate Judge's proposed findings and recommendations and will result in a waiver of the right to appeal from a judgment of the district court based on the proposed findings and recommendations of the magistrate judge. See *Vega v. Suthers*, 195 F.3d 573, 579-80 (10th Cir. 1999) (District Court's decision to review a Magistrate Judge's recommendation *de novo* despite the lack of an objection does not preclude application of the "firm waiver rule"); *Int'l Surplus Lines Ins. Co. v. Wyo. Coal Refining Sys., Inc.*, 52 F.3d 901, 904 (10th Cir. 1995) (by failing to object to certain portions of the Magistrate Judge's order, cross-claimant had waived its right to appeal those portions of the ruling); *Ayala v. United States*, 980 F.2d 1342, 1352 (10th Cir. 1992) (by their failure to file objections, plaintiffs waived their right to appeal the Magistrate Judge's ruling). *But see Morales-Fernandez v. INS*, 418 F.3d 1116, 1122 (10th Cir. 2005) (firm waiver rule does not apply when the interests of justice require review).



DATED: January 28, 2016

BY THE COURT:

s/Nina Y. Wang  
United States Magistrate Judge