

## PATENT POST-GRANT REVIEW AFTER *ALICE*

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Thank you to Professors Scott McKeown, Jonas Anderson, Denis Crouch, Megan La Belle, and Brian Love, for their helpful comments, and David Cavanaugh, for his ongoing mentorship; to Matthew Cutler, for his; and especially and most importantly, to Jarrad Wood and David Seastrunk for their incredible contributions, thoughtful comments, and their friendship. Thank you to Richard Marsh and Scott Alter for their permission to use their *Alice* graphics, and to the members of the Post-*Alice* Task Force for their efforts analyzing cases and generating Post-*Alice* data. Thank you to Kevin and Shawn for everything. And thank you, Catherine, for all of the words in air.

The views expressed, and all the errors, are mine.

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“[T]he average cost of patent litigation, including the costs of discovery, ranges between \$500,000 and \$3,995,000 per party, depending on the amount at risk. . . . Until the litigation has been concluded, there is uncertainty in the marketplace and uncertainty in the technology as to the scope of the patent right.”<sup>1</sup>

## I. INTRODUCTION

All patent litigation is wildly expensive—even meritless cases—but some of it may be stopped before it begins. Post-grant review (PGR) offers the most efficient, effective, and technical forum to resolve the patentability of recently issued patents. As one of the post-issuance trial-like regimes before the Patent Trial and Appeals Board (PTAB) established by the America Invents Act (AIA), PGR aims to provide a third-party-initiated administrative forum before which to resolve patentability disputes—in light of the public interest in limiting unnecessary monopolies<sup>2</sup>—early and efficiently, without the high cost and lengthy duration of district court litigation and the threat of leveraged five- and six-figure nuisance settlements.<sup>3</sup>

So why then are parties filing so many *inter partes* reviews (IPR), and so few PGRs?

Many reasons. For one, basic math. Unlike IPR, PGR is only open to patents granted with an effective filing date after March 16, 2013—which, given extensive continuation practice in the U.S., consists of only a tiny fraction of all issued patents, at least for the time being. (To wit: even if every one of the utility patents issuing this year—more than 300,000<sup>4</sup>—

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<sup>1</sup> *Patent Quality Improvement: Post-Grant Opposition: Hearing Before the Subcomm. on Courts, the Internet, and Intellectual Prop. of the H. Comm. on the Judiciary*, 108th Cong. 29 (2004) [hereinafter *Hearings*] (statement of Michael Kirk, Executive Director, AIPLA).

<sup>2</sup> *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2135 (2016) (citing *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 816 (1945)).

<sup>3</sup> See *Hearings*, *supra* note 1, at 29.

<sup>4</sup> *U.S. Patent Statistics Chart Calendar Years 1963–2015*, U.S. PATENT AND TRADEMARK OFFICE, [https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us\\_stat.htm](https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm) (last visited Feb. 12, 2017); *Performance and Accountability Report, Fiscal Year 2016*, U.S. PATENT AND TRADEMARK OFFICE, <https://www.uspto.gov/sites/default/files/documents/USPTOFY16PAR.pdf>

were eligible, they would only be eligible for a nine-month window post-grant, grossly limiting the pool of patents on which review is possible in any given year.)<sup>5</sup>

For another, the potential estoppel, while the risk has been overstated (isn't practical estoppel inherent in *any* validity challenge?), has made many clients and counsel unfamiliar with the new regimes skittish.<sup>6</sup>

Third, the high cost of the fees associated with filing a PGR—currently starting at \$30,000, and seemingly set to rise to almost \$40,000,<sup>7</sup> almost a hundred times higher than that of any foreign oppositions (China, around \$500;<sup>8</sup> Europe, similar) or the cost of filing a district court complaint

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(last visited Feb. 12, 2017) (through FY 2016, demonstrating, in FY 2014, 2015, and 2016, that the office issued 303,930, 295,459, and 304,568 utility patents, respectively).

<sup>5</sup>Back-of-the-envelope calculation time: If we assume roughly 2/3 of all patents issuing in 2015 had a pre-March 16, 2013 filing date—a conservative assumption—that would mean that only 100,000 of the patents issuing in 2015 would be eligible for review, each for nine months; thus at any given time, only roughly 75,000 patents would be eligible; compare that to the conservatively estimated two million patents in force and generally eligible for IPR, and you can see that numbers for PGRs will likely never match or even rival IPRs. Even when all patents are eligible (in, say, 2023), they will likely represent around ten times fewer filings once all issuing patents are eligible for PGR.

<sup>6</sup>PGR seeks to limit the likelihood of unnecessary litigation by including an estoppel provision preventing the same party (or a privy) from asserting a ground that is raised during the PGR, or which could have “reasonably” been raised—a provision whose scope is still being fought over.

<sup>7</sup>The current fee schedule is available online. See *USPTO Fee Schedule*, U.S. PATENT AND TRADEMARK OFFICE, <https://www.uspto.gov/learning-and-resources/fees-and-payment/uspto-fee-schedule> USPTO. Prior to the recent presidential election, fees seemed set to increase in early calendar year 2017, barring any delays, given the original Notice of Proposed Rulemaking to that effect. See *Setting and Adjusting Patent Fees*, 81 Fed. Reg. 68,150 (Oct. 3, 2016) <https://www.gpo.gov/fdsys/pkg/FR-2016-10-03/pdf/2016-23093.pdf>. One of President Trump's recent executive orders, however, seems to suggest there may be delays in implementing the new regulations. See, e.g., Executive Order, *Reducing Regulation and Controlling Regulatory Costs* (Jan. 30, 2017). As the cap applies to Fiscal Year 2017, it plainly applies to existing pending regulations such as the fee increase. *Id.* (“[F]or every one new regulation issued, at least two prior regulations be identified for elimination, and that the cost of planned regulations be prudently managed and controlled through a budgeting process . . .”). It is likewise relevant to note that increases to these fee levels have been discussed for years. See, e.g., Dennis Crouch, *Reviewing the New USPTO Post Grant Review System with Reference to EPO Oppositions*, PATENTLYO (Jan. 6, 2012), <http://patentlyo.com/patent/2012/01/uspto-post-grant.html> (“The other major roadblock to popularity for US post-grant review will be cost. Current behind-the-scenes discussion peg the USPTO filing fees at [more than] \$40,000 for a post-grant review.”).

<sup>8</sup>*Fees*, STATE INTELLECTUAL PROPERTY OFFICE OF THE P.R.C., [http://english.sipo.gov.cn/application/howtopct/200804/t20080416\\_380500.html](http://english.sipo.gov.cn/application/howtopct/200804/t20080416_380500.html) (last updated Dec. 30, 2005) (stating that

(typically \$400),<sup>9</sup> and still higher even than that for an IPR (\$23,000)<sup>10</sup>—coupled with the cost of preparing one, which can exceed hundreds of thousands of dollars in legal fees—currently favors the economics of a wait-and-see approach to patentability challenges.

Fourth, with hundreds of thousands of patents issued by the USPTO each year,<sup>11</sup> certain technology sectors with tens of thousands of issuing patents have likely been unable to efficiently analyze these patent haystacks for the needles—potentially infringed patents for candidates to challenge—and certainly haven't, as yet, been able to do so fast enough to make the strategic decision-making, funding, and preparation of a PGR possible during the nine-month window (there has also been at least some question as to whether filing a PGR would be evidence tending to prove willful infringement in a later civil trial, as, for instance, filing would constitute actual notice of the patent).<sup>12</sup>

Fifth, on the heels of the Federal Circuit's case-of-first-impression decision in *Phigenix, Inc. v. ImmunoGen, Inc.*,<sup>13</sup> parties to administrative proceedings below without separate Article III declaratory judgment standing on appeal—that majority of those able to bring early preemptory challenges—lose the right to appeal a loss, further discouraging early use.

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fees equal 3,000 Chinese Yuan, or, under February 17, 2017's exchange rate, about \$436 dollars). The fees appear not to have changed since 2005. *See, e.g.*, All-China Patent Agents Ass'n, *Schedule of Fees for Chinese Patent*, LIU, SHEN & ASSOCS., <http://www.liu-shen.com/docs/SFBEN.pdf> (last visited Feb. 17, 2017).

<sup>9</sup>*See, e.g.*, *Fee Schedule*, U.S. DIST. COURT E. DIST. OF TEX. (2016), [http://www.txed.uscourts.gov/cgi-bin/view\\_document.cgi?document=2374](http://www.txed.uscourts.gov/cgi-bin/view_document.cgi?document=2374) (showing a civil filing fee of \$400, similar to other district courts).

<sup>10</sup>*See USPTO Fee Schedule*, U.S. PATENT AND TRADEMARK OFFICE, <https://www.uspto.gov/learning-and-resources/fees-and-payment/uspto-fee-schedule> (last modified Mar. 1, 2017).

<sup>11</sup>*See, e.g.*, Dennis Crouch, *USPTO Breaks New Ground with 300,000 Patents Issued This Fiscal Year*, PATENTLYO (Sept. 30, 2014), <http://patentlyo.com/patent/2014/09/patents-issued-fiscal.html> ("Fiscal Year 2014 has just ended for the Federal Government and – as expected – we have a new record number of US patent grants. For the first time, the USPTO has issued more than 300,000 utility patents in one fiscal year. Don't worry, there remain more than 1,000,000 applications pending in the pipeline and more than 25,000 appeals remain pending before the Patent Trial and Appeal Board.")

<sup>12</sup>*Cordis Corp. v. Boston Sci. Corp.*, No. 1:2010-cv-00039, ECF 259 (D. Del. 2012), *aff'd w/o op.*, 12-1316 (Fed. Cir. Feb. 12 2012) (finding evidence of filing reexamination in which claims survived was evidence of willful infringement).

<sup>13</sup>845 F.3d 1168 (Fed. Cir. 2017).

Last—a reason that is not often considered—most patents in PGR will be analyzed, with notable exceptions, under the new AIA statutory validity regime, and many practitioners are still nervous about raising challenges where they cannot with confidence predict the outcome.<sup>14</sup>

On the other hand, PGRs offer a myriad of congressionally-intended advantages over other means. Whereas IPR limits the grounds by which claims can be challenged to just novelty and obviousness over patents and printed publications, PGR permits challenges by those too, as well as by written description (except for best mode), enablement, indefiniteness, claim broadening on any prior art statutorily available, and subject matter eligibility. PGRs allow for early—and expert—dispute of patentability in key technology areas—clearing the thicket—against potential competitors, and successful challenges can grant freedom to operate and settle risk, regardless of outcome. It is still generally cheaper than litigation in district court, while allowing for the same types of challenges. It uses technically and legally trained administrative law judges who are likely to be better and earlier arbiters of complex § 112 disputes than district courts, given those courts' restrictions on how, when, and in what way they may rule on § 112 issues.<sup>15</sup>

It is the only avenue for a CBM-ineligible issued patent to be challenged before the USPTO under §§ 101 or 112. It affords a higher word count limit, broader discovery, and an arguably lower institution threshold than IPR. It benefits from a preponderance of the evidence standard, use of the broadest reasonable claim construction, and has many other perceived advantages over district court challenges. And it allows for immediate correction of examiner errors.

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<sup>14</sup> See, e.g., Walter M. Egbert, III & Scott E. Kamholz, *Good, Fast and Cheap Certainty: The Case for Patent Office Litigation*, 254 N.Y. L.J. 55 (2015) (“A new form of patent litigation enables a company to get a fast and reliable decision on the validity of a patent for a fraction of the cost of a district court case.”).

<sup>15</sup> It is interesting to note the early disagreements emerging between the district courts and the patent office, neither of whose decisions are necessarily binding on the other, and both whose decisions come at various different stages of their respective proceedings. See, e.g., *Microwave Vision, S.A. v. ETS-Lindgren*, No. 14-cv-1153, 2016 WL 5092462, at \*8 (N.D. Ga. Sept. 20, 2016) (disagreeing with Board finding of indefiniteness); *Via Vadis, LLC v. Buffalo Americas, Inc.*, Nos. A-14-CV-808-LY, A-14-CV-810-LY, A-14-CV-813-LY, 2016 WL 5239626 (W.D. Tex. Sept. 20, 2016) (ignoring it); *Fortinet, Inc. v. Sophos, Inc.*, No. 13-cv-05831-EMC, 2015 WL 6513655, at \*8 (N.D. Cal. Oct. 28, 2015) (noting and declining to adopt it). *But see Cayenne Med., Inc. v. Medshape, Inc.*, No. 2:14-cv-0451, at \*3–4 (D. Ariz. May 6, 2016) (adopting Board's finding on indefiniteness).

To date, 49 PGRs have been filed, with one filed in error.<sup>16</sup> Of the 48 properly filed, the Board has not instituted two given settlement of the parties (four have settled total), not instituted 11, and instituted 16.<sup>17</sup> Of those, 25 have terminated and 23 remain open as of February 20, 2017.<sup>18</sup> Thirty-eight petitioners have used the proceedings; a few have filed multiple petitions.<sup>19</sup> This is dwarfed by the thousands of IPRs that have been filed to date.

After analyzing the claims, we draw three main conclusions. First, PGR generally represents the best available venue for challenging issued claims under §§ 101 and 112. Second, although commentators have worried over the estoppel provision,<sup>20</sup> some parties have not been deterred and have benefitted, earning settlements, claim cancellations, or favorable claim constructions. Third, the high cost of filing a PGR—higher than IPRs, generally almost \$40,000 in filing fees alone, as opposed to the popular European opposition or a district court action, both of which cost roughly \$500 in fees<sup>21</sup>—coupled with the fact that no cognizable assets are immediately at risk in preventative challenges and with other noted disadvantages—thus far has strongly discouraged parties from using the proceedings, who instead adopt a “wait-to-be-sued” approach. In sum, identifying patents to challenge is exceedingly difficult, standing on appeal is currently questionable, in-house departments are busy, overworked, and reactionary rather than excessively proactive, and the high filing cost deters many.

I fear that without further action, PGRs will remain effectively moribund.

As the number of patents granted with an effective filing date after March 16, 2013 increases, parties may as yet start turning to PGR. But the USPTO can ensure robust adoption and carry out the legislative goals of the

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<sup>16</sup> See *Patent Trial and Appeal Board Statistics*, U.S. PATENT AND TRADEMARK OFFICE (Jan. 31, 2017), [https://www.uspto.gov/sites/default/files/documents/aia\\_statistics\\_january2017.pdf](https://www.uspto.gov/sites/default/files/documents/aia_statistics_january2017.pdf).

<sup>17</sup> See *id.* at 8.

<sup>18</sup> See *infra* Appendix A.

<sup>19</sup> See *infra* Appendix A.

<sup>20</sup> See generally Robert L. Stoll, *Maintaining Post-Grant Review Estoppel in the America Invents Act: A Call for Legislative Restraint*, 2012 PATENTLY-O PAT. L.J. 1 (2012) (discussing the debate over the estoppel provision).

<sup>21</sup> *Schedule of Fees*, EUROPEAN PATENT OFFICE, <https://my.epoline.org/portal/classic/epoline.Scheduleoffees> (last updated Mar. 12, 2016); see also, e.g., *Fee Schedule*, U.S. DIST. COURT DIST. OF FLA., [http://www.flsd.uscourts.gov/?page\\_id=2396](http://www.flsd.uscourts.gov/?page_id=2396) (last visited Jan. 18, 2016).

AIA by, at a minimum, greatly reducing filing fees for these important proceedings. Congressional intent demands it.

Part II of this paper provides a brief background on forums for patentability and validity dispute resolution, the AIA, and PGR. Parts III and IV discuss recent changes to challenges under § 101 after the U.S. Supreme Court's *Alice v. CLS Bank* decision and § 112 after its decision in *Nautilus, Inc. v. Biosig Instruments, Inc.* Part V analyzes the 26 properly filed PGRs. Part VI examines the various grounds under which a petitioner can bring a PGR challenge. Part VII discusses emerging issues involving PGR and makes recommendations, and Part VIII briefly concludes.

## II. PATENT DISPUTE FRAMEWORK AND MECHANICS OF PGR REVIEW

### A. Lifecycle of a Patent

The United States Congress has delegated the power to issue or “grant” patents to the United States Patent and Trademark Office (USPTO).<sup>22</sup> Thus, formally, the life cycle of a patent begins at the USPTO when, after research and development of the invention to be patented, the inventor files an application. After filing, the applicant prosecutes the patent through a series of communications with the USPTO in which one or more claims within the patent may be rejected.<sup>23</sup> During the prosecution stage the USPTO determines whether the invention meets the statutory criteria required to obtain a patent including subject-matter eligibility under § 101, novelty under § 102, and obviousness under § 103.<sup>24</sup> If, after the prosecution period, the USPTO chooses to grant the patent application, the applicant is notified and obtains an enforceable patent upon the payment of a fee.<sup>25</sup>

Third parties may dispute the validity of the granted patent during the patent's term, and before expiration. This paper looks at this time period between when the patent is granted by the USPTO and when the patent term expires.

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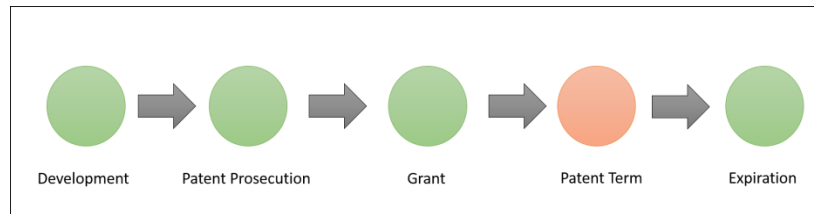
<sup>22</sup> 35 U.S.C. § 2 (2000).

<sup>23</sup> *Id.* § 132; see U.S. PATENT AND TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 706 (2015), <https://mpep.uspto.gov/RDMS/MPEP/current>.

<sup>24</sup> 35 U.S.C. §§ 101, 102, 103 (2012).

<sup>25</sup> 37 C.F.R. § 1.311 (2016).





**Figure 1: Lifecycle of a Patent.** After an invention is developed, an application is filed with the USPTO. The prosecution of the patent consists of communications between the applicant and the USPTO regarding whether the claims of the invention meet the required criteria. This paper addresses the disputes that may occur during the patent term.

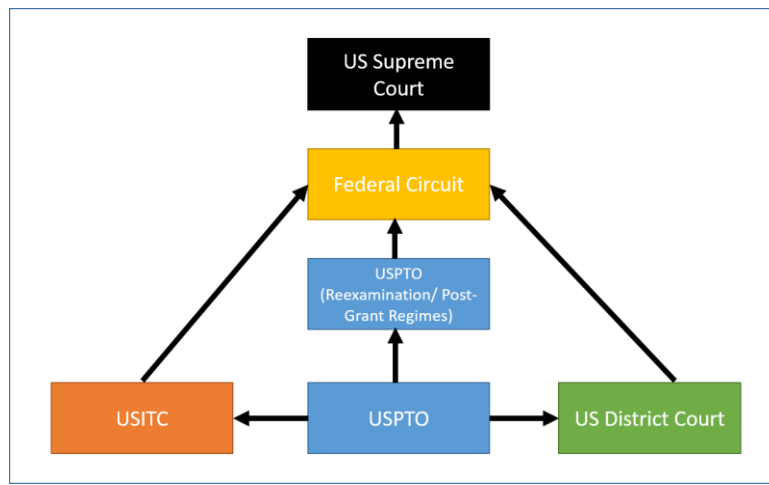
### B. Venues

*“A mere administrative tribunal.”*<sup>26</sup>

Five main venues are available to resolve disputes involving U.S. patents. In the first instance, litigants may bring cases before U.S. District Courts, the U.S. International Trade Commission, and the USPTO. Regardless of the first venue selected, all cases can then be appealed to the U.S. Court of Appeals for the Federal Circuit, and subsequently to the U.S. Supreme Court, leading to some interesting interplay between fora.

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<sup>26</sup> See *infra* note 27 and accompanying text.



**Figure 2: Venue Flowchart.**

It is worth noting that the origins of the Federal Circuit, the reviewing body of the PTAB, are themselves administrative. On May 20, 1929, the Supreme Court found that the U.S. Court of Customs and Patent Appeals (CCPA)—only recently granted authority to review patent cases in 1929—“was not a court created under Article III of the Constitution, but was a mere administrative tribunal.”<sup>27</sup> It was not until the early 1980s that the CCPA was collapsed into and rebranded the U.S. Court of Appeals for the Federal Circuit—the 13th appeals circuit to date, as authorized by Congress.<sup>28</sup>

### C. Mechanics of Post-Grant Review

*“[J]ust when I thought I was out, they pull me back in.”<sup>29</sup>*

<sup>27</sup> See GILES RICH, A BRIEF HISTORY OF THE UNITED STATES COURT OF CUSTOMS AND PATENT APPEALS 66 (1980) (discussing *Ex parte Bakelite*, 279 U.S. 438 (1929)). It is useful to note that Judge Rich’s level of detail—and obvious humility—makes for an entertaining and rather human read when considering the origins of the Federal Circuit via the judges that made up the special court of Customs and Patent Appeals that preceded it. As he noted, “That is what courts are—people.” *Id.* at 5.

<sup>28</sup> See Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (merging the appellate division of the then-Court of Claims with the CCPA to form the thirteenth federal circuit appellate court). Interestingly, the original proposals included granting the new court with the power to review all tax appeals as well, to promote uniformity there as well.

<sup>29</sup> THE GODFATHER: PART III (Paramount Pictures 1990).

A general administrative proceeding timeline follows. First, a petition for review is filed upon which a decision for institution will be made. If the petition is instituted, a proceeding before the PTAB begins which may include discovery, claim construction, amendments, briefing, and oral arguments. At the conclusion, the Board will issue a final written decision on the patentability of the challenged claims. At any point, the parties may agree to a settlement and request termination pursuant to settlement. If the settlement is post-institution, the Board can issue a final written decision regardless of the parties' wishes, based at least in part on their mandate as an administrative agency to support the public good in limiting potentially harmful monopolies.

1. Walkthrough of 35 U.S.C. §§ 321–329 / 37 C.F.R. §§ 42.200–42.224

In addition to phasing out *inter partes* reexamination, the AIA created two (arguably, three) new *inter partes* procedures, the first being Post-Grant Review (PGR). PGR went into effect on September 16, 2012, allowing third parties to challenge the validity of issued patents directly before the PTAB as an alternative to district-court litigation.<sup>30</sup> A petition to institute PGR may be filed by anyone other than the owner of the patent.<sup>31</sup> A PGR challenge can only be brought during the first nine months after the date the patent is granted or reissued.<sup>32</sup> With the exception of business method patents and pending interferences, PGR only applies to patents with an effective priority date later than March 15, 2013, *i.e.*, patents that contain a claim with an effective filing date that is on or after March 16, 2013.<sup>33</sup>

By statute, PGR should be completed by the USPTO within 12 months from the date of institution, although this can be extended an additional six months for good cause, or as needed in the case of joinder.<sup>34</sup> A PGR is an administrative investigation with limited discovery, protective orders, oral hearings, and either a settlement or decision by administrative patent

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<sup>30</sup> 35 U.S.C. § 321 (2012).

<sup>31</sup> *Id.* § 321(a); 37 C.F.R. § 42.201 (2016).

<sup>32</sup> 35 U.S.C. § 321(c); 37 C.F.R. § 42.202.

<sup>33</sup> Crouch, *supra* note 7.

<sup>34</sup> *See* 35 U.S.C. § 326 (a)(11). It is interesting to note that the language and legislative history of the provision suggest the Board may infinitely modify the length of trials where joinder is at issue.

judges. Any party dissatisfied with the final decision may appeal to the Federal Circuit.<sup>35</sup>

*a. Filing*

In the petition, a petitioner must certify that the patent for which review is sought is available for PGR and that the petitioner is not barred or estopped from making the request.<sup>36</sup> A request for PGR can be brought on more types of challenges than a request for an *ex parte* reexamination or an IPR.<sup>37</sup> Patentability challenges can be based on any ground available under 35 U.S.C. § 282(b)(2)–(3), including statutory subject matter (§ 101), novelty (§ 102), and obviousness (§ 103), as well as failure to comply with 35 U.S.C. § 112 (excluding best mode).<sup>38</sup> The petition must identify:

- (1) the claim(s) being challenged;
- (2) the statutory grounds on which the challenge to the claim is based;
- (3) how the challenged claim is to be construed;
- (4) how the construed claim is unpatentable under the statutory grounds identified; and
- (5) the exhibit number of the supporting evidence relied upon to support the challenge and the relevance of the evidence.<sup>39</sup>

Where the grounds for unpatentability are based on prior art, the petition must specify where each element of the claim is found in the prior art.<sup>40</sup> For other grounds of unpatentability, the petition must identify the specific part of the claim that fails to comply with the grounds raised and must state how

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<sup>35</sup>It is worth noting that the “substantial evidence” standard on appeal from the agency is more deferential than the “clearly erroneous” standard for appeals from courts. *See Merck & Cie v. Gnosis S.P.A.*, 808 F.3d 829, 840 (Fed. Cir. 2015) (Newman, J., dissenting) (“The substantial evidence standard determines whether the decision could reasonably have been made, not whether it was correctly made.”) (citing 3 STEVEN ALAN CHILDRESS & MARTHA S. DAVIS, FEDERAL STANDARDS OF REVIEW § 15.04 (4th ed. 2010)).

<sup>36</sup>35 U.S.C. § 321(b); 37 C.F.R. § 42.204(a).

<sup>37</sup>THE PRACTITIONER’S GUIDE TO TRIALS BEFORE THE PATENT TRIAL AND APPEAL BOARD 14 (Erika Harmon Arner & Joseph E. Palys eds., 2014).

<sup>38</sup>*See* 35 U.S.C. §§ 321(b), 282(b)(2)–(3).

<sup>39</sup>*Id.* § 322(a)(3); 37 C.F.R. § 42.204(b).

<sup>40</sup>37 C.F.R. § 42.204(b)(4).

the identified subject matter does not comply.<sup>41</sup> The rules do not prohibit petitioners from grouping claims where the grounds of alleged unpatentability for the grouped claims is the same.<sup>42</sup> Petitions have a word limit, but currently have no limits on pages, diagrams, figures, or exhibits.

### i. Fees

Filers must include a fee with the petition for PGR, and the Board will not issue a filing date until full payment is received.<sup>43</sup> The base fee for a PGR request is \$30,000, with a \$12,000 filing fee, and a post-institution fee of \$18,000.<sup>44</sup> Challenging more than twenty claims results in additional fees.<sup>45</sup> A non-instituted petition or a petition settled prior to institution will result in a refund, upon request. Under their fee-setting authority, the PTO looked set to increase their fee schedule for fiscal year 2017 to make the total filing fee \$38,000—a \$16,000 filing fee that is unrecoverable, and a \$22,000 fee that can be refunded if the case is not instituted or settled prior to institution, though that fee increase appears to be in limbo in the early days of the Trump administration.<sup>46</sup>

### ii. Serving a PGR Petition

The petition and supporting evidence must be served on the patent owner at the correspondence address of record for the subject patent.<sup>47</sup> The petitioner should contact the Board when it cannot effect service on the patent owner at the correspondence address of record.<sup>48</sup> Service on the last designated representative of the patent owner is sufficient if that is the same

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<sup>41</sup> *Id.*

<sup>42</sup> Changes to Implement Inter Partes Review Proceedings, Post-Grant Review Proceedings, and Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 48680, 48696 cmt. 25 (Aug. 14, 2012) (to be codified at 37 C.F.R. pt. 42) [hereinafter Changes to Implement Inter Partes Review Proceedings]; see THE PRACTITIONER'S GUIDE TO TRIALS BEFORE THE PATENT TRIAL AND APPEAL BOARD, *supra* note 37.

<sup>43</sup> 35 U.S.C. § 321(a); 37 C.F.R. § 42.203(a)–(b).

<sup>44</sup> 37 C.F.R. § 42.15(b)(1)–(2). The fee is set to raise in October 2016.

<sup>45</sup> *Id.* § 42.15(b)(3).

<sup>46</sup> *USPTO Seeking Comments on Proposed Patent Fee Adjustments*, U.S. PATENT AND TRADEMARK OFFICE (Sept. 30, 2016), <https://www.uspto.gov/about-us/news-updates/uspto-seeking-comments-proposed-patent-fee-adjustments>.

<sup>47</sup> 35 U.S.C. § 322(a)(5); 37 C.F.R. § 42.205(a).

<sup>48</sup> See Changes to Implement Inter Partes Review Proceedings, *supra* note 42, at 48700, cmt. 42.

correspondence address of record for the subject patent.<sup>49</sup> Each party can express its preferred method for service, but it is not required to do so.<sup>50</sup>

A petition to institute a PGR will not be accorded a filing date until: (1) the petition complies with the content requirements laid out in 35 U.S.C. § 322(a); (2) service of the petition on the patent owner; and (3) submission of the appropriate fee.<sup>51</sup> The Board will generally accord a filing date where minor deficiencies exist that do not impact the Board's ability to determine whether to institute the review or the patent owner's ability to file a preliminary response.<sup>52</sup> However, failure to include a statement for the precise relief requested for each claim challenged is not considered a minor deficiency.<sup>53</sup> For any other deficiencies, the Board paralegals generally allow parties five days to correct them. Those raised later do not impact the filing date accorded, although failure to correct noted deficiencies may.<sup>54</sup>

#### *b. PGR Interaction with Civil Actions*

Petitioners may not request a PGR if they have already filed a civil action challenging validity in district court.<sup>55</sup> Notably, neither declaratory judgments of noninfringement nor an affirmative defense of invalidity constitute civil actions challenging validity. This contrasts traditional reexamination practice, whereby requestors filed reexaminations requests concurrently with infringement actions in district court. By statute, if a PGR petitioner files a declaratory judgment action on the same day or thereafter, then the district court action will automatically be stayed.<sup>56</sup> The stay may only be lifted if the patent owner moves to lift the stay, files an action or counterclaim of infringement, or moves to dismiss the civil action entirely.<sup>57</sup> Effectively, the AIA intends to limit a petitioner to only one avenue of review, whether in district court litigation or before the PTAB.

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<sup>49</sup> *Id.* at 48700, cmt. 43.

<sup>50</sup> *Id.* at 48700, cmt. 44.

<sup>51</sup> 37 C.F.R. § 42.206.

<sup>52</sup> Changes to Implement Inter Partes Review Proceedings, *supra* note 42, at 48700, cmt. 45.

<sup>53</sup> *Id.* at 48701, cmt. 47.

<sup>54</sup> See *Lumentum Holdings, Inc. v. Capella Photonics, Inc.*, No. IPR2015-00739, Paper 38, at 6, 2016 Pat. App. Filings LEXIS 1535, at \*9 (P.T.A.B. Mar. 4, 2016).

<sup>55</sup> 35 U.S.C. §§ 315(a)(1), 325(a)(1) (2012).

<sup>56</sup> *Id.* §§ 315(a)(2), 325(a)(2).

<sup>57</sup> *Id.* §§ 315(a)(2), 325(a)(2).

*c. Real Party-in-Interest*

Per Board regulations, the real party-in-interest must be identified.<sup>58</sup> That is, a petition for PGR cannot be filed anonymously.<sup>59</sup> The control and degree of a party may be considered when determining whether a party may be recognized as a real party-in-interest or a privy.<sup>60</sup> Additionally, the Office considers the particular facts of each case and controlling case law when making determinations.<sup>61</sup> For instance, a party's membership in a joint defense agreement with the petitioner alone does not make the party a real party-in-interest, but is relevant and considered.<sup>62</sup>

In AIA proceedings, the Office will generally accept the petitioner's "real party-in-interest" identification. Where appropriate, the patent owner may provide objective evidence to challenge the identification in its preliminary response, which the Board may consider.<sup>63</sup> If the patent owner provides persuasive evidence of direct funding, direction, and control of the particular challenge to the patent, the Board may rule that the parties have not named all real parties-in-interest; a party's representation will not be rebutted by argument and allegation alone.<sup>64</sup> Failure to name the real parties

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<sup>58</sup> See *Wi-Fi One, LLC v. BroadCom Corp.*, 837 F.3d 1329, 1334 (Fed. Cir. 2016) (holding that 35 U.S.C. § 312 and § 315 statutes are unreviewable on appeal under the Supreme Court's *Cuozzo* decision), *reh'g granted*, No. 2015-1944, 2017 WL 957224 (Fed. Cir. 2017) (authorizing *en banc* rehearing regarding whether *Achates Reference Publ'g, Inc. v. Apple Inc.*, 803 F.3d 652 (Fed. Cir. 2015) should be overruled and an alleged § 315(b) violation was reviewable).

<sup>59</sup> 35 U.S.C. § 312(a)(2).

<sup>60</sup> Changes to Implement Inter Partes Review Proceedings, *supra* note 42, at 48695, cmt. 5.

<sup>61</sup> *Id.* at 48695, cmt. 6.

<sup>62</sup> *Id.* at 48695, cmt. 7.

<sup>63</sup> *Id.* at 48695, cmt. 9.

<sup>64</sup> See, e.g., *Unified Patents, Inc. v. Am. Vehicular Scis., LLC*, No. IPR2016-00364, Paper 13, at 6–7, 2016 WL 5224298 (P.T.A.B. Jun. 27, 2016); *Unified Patents, Inc. v. Nonend Inventions N.V.*, No. IPR2016-00174, Paper 10, at 6, 2016 Pat. App. Filings LEXIS 5268, at \*6 (P.T.A.B. May 12, 2016) (finding that patent owner could not show that any of Unified's members was "controlling this particular proceeding, or . . . providing direct financing for this particular proceeding," and finding that the "possibility of communication between Unified and its members on the selection of which patent to challenge is not sufficient to bring into question Petitioner's identification of all real parties-in-interest"); *Unified Patents, Inc. v. Qurio Holdings, Inc.*, No. IPR2015-01940, Paper 7, at 26, 2016 Pat. App. Filings LEXIS 7437, at \*33 (P.T.A.B. Apr. 13, 2016) (finding patent owner's arguments based on public filings "amount to mere speculation that Comcast is a real-party-in-interest rather than actual proof that Comcast exerted control over the Petition"); *Unified Patents, Inc. v. TransVideo Elects., Ltd.*, No. IPR2015-01519, Paper 8, at 5 (P.T.A.B. Jan. 15, 2016) (recognizing, in summary statement, Unified's certification and voluntary interrogatories, instituting on all claims); *Unified Patents, Inc. v. iMTX Strategic, LLC*,

in interest, however, is not in itself grounds to dismiss a petition or change a filing date.<sup>65</sup>

*d. Preliminary Response to a PGR Petition*

The patent owner may file a preliminary response to the petition, setting forth the reasons why a PGR should not be instituted.<sup>66</sup> This response must be filed no later than three months after the date of the notice indicating a PGR has been granted a filing date.<sup>67</sup> Originally, the response could not contain any new testimonial evidence or amendments,<sup>68</sup> but in response to considerable lobbying from the bar, the office issued new notice-and-comment rulemaking allowing for patent owners to submit new testimonial evidence with the patent owner's preliminary response, doing so under a new standard stating that all genuine issues of material fact would be

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No. IPR2015-01061, Paper 9, at 6, 2015 Pat. App. Filings LEXIS 7475, at \*7 (P.T.A.B. Oct. 15, 2015) (distinguishing the precedential *Trollbusters* case, finding that there was no evidence that unnamed parties had “picked the patents to be challenged” or “provided funding for the particular proceedings.”); Unified Patents, Inc. v. Hall Data Sync Tech. LLC, No. IPR2015-00874, Paper 11, at 4, 2015 Pat. App. Filings LEXIS 7218, at \*5 (P.T.A.B. Sept. 17, 2015) (finding that patent owner's allegations related to timing and notification do not demonstrate that a member was a principal of Unified or a real party-in-interest for the purposes of 35 U.S.C. § 312(a)(2)); Unified Patents, Inc. v. Dragon Intellectual Prop., LLC, No. IPR2014-01252, Paper 37, at 11–13, 2015 WL 632391, at \*6–7 (P.T.A.B. Feb. 12, 2015) (after pre-institution additional voluntary discovery including depositions and document production, the Board distinguished *RPX Corp. v. VirnetX Inc.*, finding that even if a patent owner could prove that Unified “engage[d] in no activity of practical significance other than filing IPR petitions with money received from its members,” that would not demonstrate any member was a real party-in-interest, as it did not demonstrate that any member paid for, directed Unified toward, or suggested filing against any particular patent); Unified Patents, Inc. v. Clouding IP, LLC, No. IPR2013-00586, Paper 9, at 5–6, 2014 WL 1477686, at \*3 (P.T.A.B. Mar. 21, 2014), *aff'd sub nom.* Clouding IP, LLC v. Unified Patents Inc., 640 F. App'x 997 (Fed Cir. May 19, 2016) (finding that citing numerous public documents about “founding member” did not demonstrate they had any control over, or were funding, the proceeding, and thus they were not real parties-in-interest).

<sup>65</sup> See *Lumentum Holdings, Inc. v. Capella Photonics, Inc.*, No. IPR2015-00739, Paper 38, at 5–6, 2016 Pat. App. Filings LEXIS 1535, at \*7, \*9 (P.T.A.B. Mar. 4, 2016) (precedential). For a discussion on the value of precedential decision before the Board, see David L. Cavanaugh & Jonathan Stroud, *Precedent, Persuasion, and the PTAB*, LANDSLIDE MAGAZINE, Mar.–Apr. 2016, at 4.

<sup>66</sup> 37 C.F.R. § 42.207(a) (2016).

<sup>67</sup> *Id.* § 42.207(b). Note that the period runs from the date the paper is filed, *not* the filing date itself.

<sup>68</sup> *Id.* § 42.207(d).



resolved in favor of the petitioner for purposes of the institution decision.<sup>69</sup> However, other evidence to support contentions made is allowed.<sup>70</sup> The patent owner may file a statutory disclaimer, disclaiming one or more claims, which will not be subject to the PGR.<sup>71</sup> Alternatively, the patent owner can waive the preliminary response to speed up the process.<sup>72</sup>

As mentioned prior, if the patent owner wishes to challenge the “real party-in-interest” identification, it generally should be done before or with the filing of the preliminary response.<sup>73</sup>

*e. Institution*

Once a petition has been filed, the Director reviews the petition and may only authorize a post-grant review when one of the following conditions are met: the petition contains information, which if not rebutted, would demonstrate “that it is more likely than not that at least [one] of the claims challenged in the petition is unpatentable[;]”<sup>74</sup> or, if it raises a “novel or unsettled legal question” that is important to patent law.<sup>75</sup> Notably, the “more likely than not” standard present in PGR raises a substantially higher bar for approval as compared to the PTO’s previous standard of “substantial new question of patentability” found in *ex parte* reexamination proceedings.<sup>76</sup> The petition for PGR must include identification of each claim challenged, the grounds for each challenge, and the evidence supporting each challenge.<sup>77</sup> Much like *ex parte* reexamination, this

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<sup>69</sup> Amendments to the Rules of Practice for Trials Before the Patent Trial and Appeal Board, 81 Fed. Reg. 18750, 18750–56 (Apr. 1, 2016) (codified in relevant part at 37 C.F.R. §§ 42.107(a), 42.207(a)).

<sup>70</sup> Changes to Implement Inter Partes Review Proceedings, *supra* note 42, at 48702, cmt. 53.

<sup>71</sup> 37 C.F.R. § 42.207(e).

<sup>72</sup> *Id.* § 42.207(b).

<sup>73</sup> Changes to Implement Inter Partes Review Proceedings, *supra* note 42, at 48695, cmt. 8.

<sup>74</sup> 35 U.S.C. § 324(a) (2012); 37 C.F.R. § 42.208(c).

<sup>75</sup> 35 U.S.C. § 324(b); 37 C.F.R. § 42.208(d).

<sup>76</sup> The “reasonable likelihood” standard allows for the exercise of discretion but encompasses a 50/50 chance whereas the “more likely than not” standard requires greater than a 50 percent chance of prevailing. USPTO, AIA Implementation Information, *Message from Chief Judge James Donald Smith, Board of Patent Appeals and Interferences: USPTO Discusses Key Aspects of New Administrative Patent Trials*, [http://www.uspto.gov/aia\\_implementation/smith-blog-extravaganza.jsp](http://www.uspto.gov/aia_implementation/smith-blog-extravaganza.jsp) (last modified May 21, 2012).

<sup>77</sup> 37 C.F.R. § 42.204.

decision is final and not appealable.<sup>78</sup> This decision not to institute, however, does not constitute a final written decision which triggers estoppel provisions.<sup>79</sup> This decision is not appealable.<sup>80</sup> While Rule 11 sanctions do not apply to administrative proceedings before the PTO, practitioners should still carefully consider what arguments to present due to PGR's heightened threshold for institution.

The Board may discretionarily deny petitions, for instance when those petitions contain the same or substantially the same prior art arguments previously presented, or petitions that it determines it could not complete in a timely fashion.<sup>81</sup>

*f. Patent Owner Response and Motion to Amend*

The patent owner may file a response to the petition addressing any ground for unpatentability not already denied.<sup>82</sup> The default due date for this response is three months from the date of institution.<sup>83</sup> The patent owner may respond to an initial claim-construction ruling in this response.<sup>84</sup>

Additionally, the patent owner may file one motion to amend, but only after conferring with the Board, and no later than the time of the patent owner's response.<sup>85</sup> The conferring requirement means that the patent owner must identify its intent in a conference call, as well as identify the number and general scope of the substitute claims that will be filed.<sup>86</sup> If a claim is amended, there may be intervening rights which serve to limit the damages the patentee may collect to only the claims as amended. If so, the intervening rights are treated the same as if it was a U.S. reissue patent.<sup>87</sup>

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<sup>78</sup> Changes to Implement Inter Partes Review Proceedings, *supra* note 42, at 48704, cmt. 66.

<sup>79</sup> *Id.*

<sup>80</sup> *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2136 (2016).

<sup>81</sup> Changes to Implement Inter Partes Review Proceedings, *supra* note 42, at 48702, cmts. 55, 57.

<sup>82</sup> 37 C.F.R. § 42.220(a).

<sup>83</sup> *Id.* § 42.220(b).

<sup>84</sup> Changes to Implement Inter Partes Review Proceedings, *supra* note 42, at 48700, cmt. 38.

<sup>85</sup> 35 U.S.C. § 326(d) (2012); 37 C.F.R. § 42.221(a).

<sup>86</sup> Changes to Implement Inter Partes Review Proceedings, *supra* note 42, at 48704, cmt. 71.

<sup>87</sup> *Id.* at 48705, cmt. 74.

*g. Discovery in PGR*

The opportunities for discovery in a PGR are limited, providing for routine and additional discovery during Office proceedings.<sup>88</sup> Parties are required to provide routine discovery and may agree to mandatory initial disclosures and to additional discovery.<sup>89</sup> All other discovery requests must be made by motion.<sup>90</sup>

When parties agree to mandatory initial disclosures, they must submit the agreement no later than the filing date of the patent owner's preliminary response, or the deadline for such a response if a response is not filed.<sup>91</sup> In the agreement, parties can choose between two types of initial disclosures.<sup>92</sup> The first is modeled after Rule 26(a) of the Federal Rules of Civil Procedure.<sup>93</sup> The second, more expansive option requires the petitioner to identify persons and information relating to the basis of any alleged patentability concerns, or if a challenge is based on alleged prior nonpublished public disclosure, information relating to that.<sup>94</sup>

Routine discovery includes three general categories of discovery.<sup>95</sup> A party must produce any exhibit cited in a paper or testimony, as well as relevant information that is inconsistent with a position advanced during the proceeding, and allows for the cross-examination of a witness (through deposition) who offered direct testimony through an affidavit or declaration.<sup>96</sup>

Additional discovery is only allowed when an agreement between the parties provides for it, or by motion.<sup>97</sup> Additional discovery may be granted by motion under a "good cause" standard for doing so.<sup>98</sup> Further, additional

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<sup>88</sup> 37 C.F.R. § 42.51.

<sup>89</sup> *Id.* § 42.51(a)(1), (b)(2)(i).

<sup>90</sup> *See id.* § 42.51(b)(2)(i).

<sup>91</sup> *Id.* § 42.51(a)(1)(i).

<sup>92</sup> *See id.*

<sup>93</sup> Office Patent Trial Practice Guide, 77 Fed. Reg. 48756, 48762 (Aug. 14, 2012) (to be codified at 37 C.F.R. pt. 42) [hereinafter Practice Guide].

<sup>94</sup> *See id.*

<sup>95</sup> *See* 37 C.F.R. § 42.51(b)(1).

<sup>96</sup> *Id.*

<sup>97</sup> *Id.* § 42.51(b)(2).

<sup>98</sup> *See* Practice Guide, *supra* note 93, at 48771–72.

discovery in PGR proceedings is limited to evidence directly related to factual assertions advanced by either party.<sup>99</sup>

In determining whether the requested additional discovery is warranted for good cause in a PGR, the Board considers the following factors: (1) more than a possibility and mere allegation; (2) litigation positions and underlying basis; (3) ability to generate equivalent information by other means; (4) easily understandable instructions; and (5) requests not overly burdensome to answer.<sup>100</sup> Factor one requires that a party show more than a mere allegation that something useful may be found by the requested discovery.<sup>101</sup> The Board emphasizes that for something to be “useful,” it must be “favorable in substantive value to a contention of the party moving for discovery” and that a “good cause” showing requires “the moving party to provide a specific factual reason” to expect that the requested discovery will be “useful.”<sup>102</sup> A motion to amend does not constitute “good cause.”<sup>103</sup>

#### *h. Claim Interpretation Before the PTO*

Unlike district court proceedings, during claim construction the Office gives a claim term the “broadest reasonable interpretation” considering the specification for unexpired patents, as confirmed by the Supreme Court in *Cuozzo Speed Technologies, LLC v. Lee*.<sup>104</sup> The Office, as the expert agency best situated to address patentability, employs the standard in part to prevent questionable claims from issuing or remaining in force and needlessly draining public and private resources. In turn, patentees can present their own constructions, and can seek to amend their claims.<sup>105</sup> When applying the broadest reasonable interpretation, the Office may consider statements of the patent owner filed in a proceeding before a

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<sup>99</sup> 37 C.F.R. §§ 42.51(b)(2), 42.224(b).

<sup>100</sup> *Bloomberg Inc. v. Markets-Alert Pty Ltd.*, No. CBM2013-00005, Paper 32, at 5, 2013 WL 11311787, at \*2 (P.T.A.B. May 29, 2013).

<sup>101</sup> *See id.*

<sup>102</sup> *Id.*

<sup>103</sup> *See* Changes to Implement Inter Partes Review Proceedings, *supra* note 42, at 48696, cmt. 16.

<sup>104</sup> *See* 136 S. Ct. 2131, 2144 (2016); *see also* 37 C.F.R. § 42.200(b); *SAP Am., Inc. v. Versata Dev. Grp., Inc.*, No. CBM2012-00001, Paper 70, at 8, 2013 WL 3167735, at \*4 (P.T.A.B. June 11, 2013); *Microsoft Corp. v. Proxycorr, Inc.*, No. IPR2012-00026, Paper 17, at 12, 2012 WL 10703131, at \*6 (P.T.A.B. Dec. 21, 2012).

<sup>105</sup> *See* 37 C.F.R. § 42.221 (2016).

federal court or the Office regarding the claim scope of a patent, but may not be bound by them.<sup>106</sup>

Claim charts are not required; a patentee is expected to simply state that the claims are to be given the broadest reasonable interpretation. If a party believes that a term should have a meaning other than its plain meaning, it should explain why.<sup>107</sup>

*i. Possible Outcomes of a PGR*

There are five possible outcomes to a PGR. The Board may decide to either: (1) cancel claims as unpatentable; (2) confirm claims are patentable; (3) publish new or amended claims that are patentable; (4) issue a decision which is some combination of the previous three outcomes; or (5) terminate the PGR.<sup>108</sup> The parties additionally have the option to terminate a PGR upon settlement, with a caveat: the PTAB still has discretion to continue reviewing the action even if no petitioner remains if the proceeding has advanced far enough.<sup>109</sup>

*j. Estoppel*

Section 325(e) provides:

(e) ESTOPPEL.—

(1) PROCEEDINGS BEFORE THE OFFICE.— The petitioner in a post-grant review of a claim in a patent under this chapter that results in a final written decision under section 328(a), or the real party in interest or privy of the petitioner, may not request or maintain a proceeding before the Office with respect to that claim on any ground that the petitioner raised *or reasonably could have raised* during that post-grant review.

(2) CIVIL ACTIONS AND OTHER PROCEEDINGS.— The petitioner in a post-grant review of a claim in a patent under this chapter that results in a final written decision

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<sup>106</sup> Changes to Implement Inter Partes Review Proceedings, *supra* note 42, at 48698–99, cmts. 29–31.

<sup>107</sup> Practice Guide, *supra* note 93, at 48764.

<sup>108</sup> See 35 U.S.C. § 328(b) (2012).

<sup>109</sup> *Id.* § 327.

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under section 328(a), or the real party in interest or privy of the petitioner, may not assert either in a civil action arising in whole or in part under section 1338 of title 28 or in a proceeding before the International Trade Commission under section 337 of the Tariff Act of 1930 that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that post-grant review.<sup>110</sup>

Unlike CBM review, upon final written decision the petitioner in a PGR is estopped from raising any issues “raised or [that] reasonably could have been raised” during the proceeding.<sup>111</sup> This means the petitioner, the petitioner’s real party-in-interest, or a privy of the petitioner is estopped from challenging the claims on the ground identified in the petition.<sup>112</sup> Recent district court, PTAB, and Federal Circuit opinions have discussed and begun to sketch out this estoppel’s reach following the Federal Circuit’s *Shaw Industrial Group v. Automated Creel Systems, Inc.* decision,<sup>113</sup> but a deeper analysis of these decisions is beyond the scope of this paper. Very few district court cases ever fully address validity on any of these grounds, save § 101 after *Alice*.

### III. SUBJECT-MATTER ELIGIBILITY AFTER ALICE

The Supreme Court’s decision in *Alice Corporation v. CLS Bank International* significantly changed patent practice before district courts and the USPTO for certain technical subject matters.<sup>114</sup> Our analysis suggests *Alice*’s impact extends to petitions for PGR—making it more likely that, in the wake of the decision, petitions for PGR seeking review of computer-implemented patents under § 101 will be instituted.

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<sup>110</sup> *Id.* § 325(e) (emphasis added).

<sup>111</sup> *Id.* § 325(e)(1).

<sup>112</sup> 37 C.F.R. § 42.201(b) (2016).

<sup>113</sup> 817 F.3d 1293, 1305 (Fed. Cir. 2016); *see, e.g.*, *HP Inc. v. MPHJ Tech. Invs., LLC*, 817 F.3d 1339, 1347–48 (Fed. Cir. 2016).

<sup>114</sup> *See* 134 S. Ct. 2347, 2352 (2014).

### A. Alice v. CLS Bank

The following sections provide a brief background on the *Alice* decision, and the results of the American Bar Association's Post-*Alice* Task Force.

#### 1. Background<sup>115</sup>

On June 19, 2014, the U.S. Supreme Court unanimously held in *Alice Corporation v. CLS Bank International* that abstract ideas cannot become patent eligible by merely requiring computer implementation.<sup>116</sup> The case concerned a patent for a way, using a computer to, in essence, create clearinghouses to mitigate “settlement risk.”<sup>117</sup> Under the scheme disclosed in the patent, a computer acted as an intermediary between the two transacting parties.<sup>118</sup> The computer was programmed to only permit transactions when the records indicated that the mutual obligations of the parties would be upheld.<sup>119</sup>

At heart, the Supreme Court sought to “distinguish between patents that claim the ‘building blocks’ of human ingenuity and those that integrate the building blocks into something more . . . thereby ‘transforming’ them into a patent-eligible invention. . . .”<sup>120</sup> To do so, the Supreme Court applied the two-step *Mayo* framework: first determining whether the patent claims an abstract idea, among other unpatentable things, and second determining whether the claims—both individually and as an “ordered combination”—transform the nature of the claim into a patent-eligible application.<sup>121</sup> Second, the Court reviewed the claims to determine if they disclosed an “inventive concept.”<sup>122</sup>

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<sup>115</sup>This section is adapted from the summary of *Alice* found in Jarrad Wood, *Supreme Court Weighs in on Patent-Eligible Subject Matter*, A.B.A. (July 1, 2014), <https://apps.americanbar.org/litigation/committees/intellectual/practice.html>.

<sup>116</sup>134 S. Ct. at 2352 (“We hold that the claims at issue are drawn to the abstract idea of intermediated settlement, and that merely requiring generic computer implementation fails to transform that abstract idea into a patent-eligible invention.”).

<sup>117</sup>*Id.*

<sup>118</sup>*Id.*

<sup>119</sup>*Id.*

<sup>120</sup>*Id.* at 2354.

<sup>121</sup>*Id.* at 2355.

<sup>122</sup>*Id.* (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 556 U.S. 66, 73–74 (2012)).

The Court found the claims at issue to be patent ineligible because an abstract concept—the clearinghouse—existed, but an inventive concept did not.<sup>123</sup> First, the Court found the patent to be an abstract concept similar to “hedging,” as it is “a fundamental economic practice long prevalent in our system of commerce. . . .”<sup>124</sup> Second, the Court analogized the patent at issue to the patents found invalid in *Mayo, Gottschalk v. Benson*, and *Parker v. Flook*.<sup>125</sup> By contrast, the Court found that the computer-implemented mathematical equation in *Diamond v. Diehr* was patent eligible because it contained extra steps that “transformed the process into an inventive application of the formula.”<sup>126</sup>

## 2. *Alice*’s Impact: Results from the ABA Post-*Alice* Task Force’s Research

Following the *Alice* decision, the American Bar Association’s Intellectual Property Committee put together a task force, called the ABA Post-*Alice* Task Force, of lawyers and law students to study the impact of the decision. Over the past two years, over eighty volunteers have analyzed hundreds of district court cases from across the country, as well as office actions before the Patent Office.<sup>127</sup> Since the Court issued *Alice*, the effects of the decision have been dramatic. Although the Court urged courts, examiners, and other decision makers to “tread carefully” before invalidating patents, and emphasized that the primary concern was to avoid preemption of “fundamental building blocks” of human ingenuity, courts and the USPTO have generally taken a broad approach to what constitutes an “abstract idea,” and have often held ineligible computer-implemented patent claims.<sup>128</sup>

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<sup>123</sup> *Id.* at 2357.

<sup>124</sup> *Id.* at 2356.

<sup>125</sup> *Id.* at 2357–58.

<sup>126</sup> *Id.* at 2358 (quoting *Mayo Collaborative Servs.*, 556 U.S. at 81–82).

<sup>127</sup> The results of the Task Force’s study are reproduced here with permission. The graphics were created by Richard M. Marsh, the task force’s head, and Scott Alter. The company Juristat identified the office actions.

<sup>128</sup> See Robert R. Sachs, *Two Years After Alice: A Survey of the Impact of a “Minor Case” (Part I)*, BILSKI BLOG (June 16, 2016), <http://www.bilskiblog.com/blog/2016/06/two-years-after-alice-a-survey-of-the-impact-of-a-minor-case.html>.



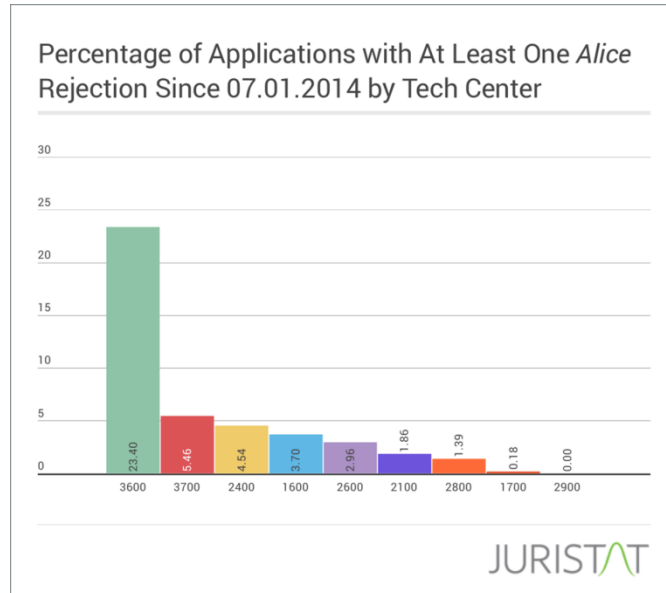
	Cases analyzed	No claims survived	At least 1 claim survived	% survival rate
C.D. Cal	37	29	8	22%
D. Del	38	26	12	32%
D. Mass	6	2	4	66%
E.D. Tex	20	10	10	50%
E.D. Va.	8	8	0	0%
M.D. Fla.	5	4	1	20%
N.D. Cal.	27	19	8	30%
N.D. Ill.	12	9	3	25%

**Figure 3: Alice Dist. Ct. Decisions from June 19, 2014–Feb. 28, 2016.**

As the figure above illustrates, in the two years following the *Alice* decision, its impact on district court decisions has been pronounced. Most notably, during the two-year survey period, not a single challenged patent survived in the Eastern District of Virginia. Before the U.S. District Court for the District of Delaware—which saw the highest number of *Alice* challenges in the country—the survival rate remained at a mere 32%.

Importantly, these decisions were likely not the result of the misapplication of *Alice*. The ABA Post-*Alice* Task Force rated each decision on a scale from one to five—one being strong disagreement with the decision and five being strong agreement with the decision. The U.S. District Court for the Eastern District of Virginia, in which no challenged patent had survived under *Alice*, received the highest level of agreement (4.14) from the ABA evaluators. On average, the decisions received a score of 3.81, indicating agreement with the decisions, although not strong agreement.

*Alice* has also had a noticeable impact on patent applications.



**Figure 4: Percentage of applications with at least one Alice rejection since July 21, 2014.**

In sum, *Alice* has had a dramatic, negative impact on the eligibility of computer implemented patents and business method patents, notwithstanding whether that was the intent of the U.S. Supreme Court. As discussed below, *Alice*'s impact has also been felt in the first three PGRs to be instituted, as well as the first final decision in a PGR case.

#### IV. INDEFINITENESS AFTER *NAUTILUS, INC. v. BIOSIG INSTRUMENTS, INC.* AND *IN RE PACKARD*

As noted throughout, one of the opportunities presented by PGRs—and not presented by CBMs or IPRs—is the ability to challenge patents under § 112, including indefiniteness challenges. But look before leaping. Two recent cases have made notable changes to indefiniteness. All interested parties would do well to take note.

In mid-2014, just as patents were starting to become eligible for PGRs, the U.S. Supreme Court greatly lowered the standard required to show whether claims are indefinite, potentially invalidating thousands of claims allowable under the old standard—and likely many future claims examined by patent examiners trained under the old regime. In *Nautilus, Inc. v. Biosig*

*Instruments, Inc.*, the Supreme Court unanimously overturned the old Federal Circuit standard that claims were valid if “amenable to construction” and not “insolubly ambiguous” because the standard was insufficient to satisfy the definiteness requirement of 35 U.S.C. § 112.<sup>129</sup>

Instead, they asked whether claims could be read with a “reasonable certainty.” “In place of the ‘insolubly ambiguous’ standard, we hold that a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.”<sup>130</sup>

Definiteness under § 112, evaluated from the perspective of someone of ordinary skill in the art, requires that the claims be read in light of the specification and prosecution history, as measured at the time of filing.<sup>131</sup> But with the changed standard, it may be easier to argue before the office, under an even more lax standard, that claims are indefinite.

The second case—*In re Packard*—was decided by the Federal Circuit while *Nautilus* was pending before the Supreme Court, and arguably provides a more exacting indefiniteness determination before the agency.<sup>132</sup> In *Packard*, the Board found the appellant’s applied-for patent claims to be indefinite and therefore invalid.<sup>133</sup> Undeterred, the appellant appealed to the Federal Circuit alleging that the Board applied an “insolubly ambiguous” standard.<sup>134</sup> The Federal Circuit affirmed, though not under that standard.<sup>135</sup> Given that it was an appeal from examination and a Board proceeding and the parties had the ability to amend, the Federal Circuit found that “when the USPTO has initially issued a well-grounded rejection that identifies

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<sup>129</sup> 134 S. Ct. 2120, 2124 (2014).

<sup>130</sup> *Id.*

<sup>131</sup> *See id.* at 2129.

<sup>132</sup> *In re Packard*, 751 F.3d 1307, 1309 (Fed. Cir. 2014), *cert. denied*, *Packard v. Lee*, 135 S. Ct. 2310 (2015) (“This case raises an important question: what standard for indefiniteness should the U.S. Patent and Trademark Office . . . apply to pre-issuance claims?”); *see also* Jason Rantanen, *Teva, Nautilus, and Change Without Change*, 18 STAN. TECH. L. REV. 430, 455 (2015) (“[T]he greatest possibility for change likely lies with the gatekeeping role of the patent office. Even as it has demonstrated resistance to indefiniteness challenges to issued patents, the Federal Circuit has maintained the heightened definiteness standard for examining patent claims that it affirmed in *In re Packard*. And it may be the patent office that is best suited to addressing issues of ambiguity up front.”).

<sup>133</sup> *See In re Packard*, 751 F.3d at 1309.

<sup>134</sup> *See id.*

<sup>135</sup> *See id.*

ways in which language in a claim is ambiguous, vague, incoherent, opaque, or otherwise unclear in describing and defining the claimed invention . . . the USPTO can properly reject the claim [under] § 112(b).<sup>136</sup> In other words, there must be a finding of a “well-founded prima facie case of lack of clarity (in its several forms) based on the perspective of one of ordinary skill in the art in view of the entire written description and developing prosecution history.”<sup>137</sup> Thus, the Board noted that “if the applicant does not adequately respond to that prima facie case,” it is appropriate “to confirm that rejection on the substantive basis of having failed to meet the requirements of § 112(b).”<sup>138</sup>

In the context of PGRs, *Packard* may provide more definite guidance, as it directly applies to the decisions of the agency. Nonetheless, *Nautilus* indisputably changes the landscape for patent practice with respect to § 112. A keen eye towards both cases, and their progeny, will almost certainly be important to PGR challenges under § 112.

## V. SUMMARY OF PGRS TO DATE

As of February 2017, 46 PGRs had been filed total, 11 in FY2015, 24 in FY2016, and 11 in FY2017.<sup>139</sup> Thirty-four parties filed preliminary responses of 36 for more than three months—the vast majority—and only two did not file or waive them (the others settled or were abandoned prior to the deadline). There have been two settlements, 11 denials of institution of PGRs, 16 grants of institution, and no successful joinders to date.

Ground-by-ground, there had been 24 instituted grounds (four partially), and 39 denied (the same four, partially).<sup>140</sup> Eight oral hearings had been held, nine final written decisions had issued, and two motions to amend claims have been ruled on, both in the negative.<sup>141</sup> One case raised joinder thus far, but the underlying case was denied and so the case seeking joinder was denied as well. Nine cases have held claims unpatentable, including one early adverse judgment leading to claim cancellation; three have found

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<sup>136</sup> *Id.* at 1311.

<sup>137</sup> *Id.* at 1312.

<sup>138</sup> *Id.*

<sup>139</sup> U.S. PATENT AND TRADEMARK OFFICE, *supra* note 16. Other statistics derived from DocketNavigator® Analytics (Beta) tool.

<sup>140</sup> *See infra* Appendix A. Data derived from publicly filed information accessed through the extremely useful DocketNavigator® tool.

<sup>141</sup> *See infra* Appendix A.

at least some claims upheld. Five were abandoned or terminated pursuant to settlement, and one party filed for adverse judgment.<sup>142</sup>

In terms of breakdown, the most successful ground by percentage of institution is § 112(a) written description, with a 50% institution success rate to date.

Instituted grounds breakdowns to date follow:

*Three of eight (3/8) § 101 subject matter grounds;*  
*Three (one partial) of eight (3/8\*) § 112(a) enablement grounds;*  
*Three of six (3/6) § 112(a) written description grounds;<sup>143</sup>*  
*Four of twelve (4/12) § 102 anticipation grounds;*  
*Ten (two partial) of nineteen (10/19\*) § 103 obviousness grounds; and*  
*And no (0/1\*) § 171 ornamental grounds (for a design patent).*

The use of PGRs to date has been tepid compared to IPR, though context matters. The vast majority of patents that have issued in the past four years and that are issuing today are eligible for IPR; meanwhile, only a tiny fraction of patents that have issued since March 16, 2013—only a few years ago—are eligible for PGR.<sup>144</sup> Most claim reference to earlier effective filing dates. Until 2033, valid patents will be issuing with old filing dates, under common continuation application practice. While the number of patents eligible for PGR each year should grow, the universe of PGR patents available can reasonably be estimated in the tens of thousands. Meanwhile, millions of active issued patents are eligible for IPR review—with some 300,000-plus issuing annually.

The economics of IPR and PGR favor IPR, where a potential infringer may not know a patent owner believes they infringe until well after the 9-month deadline for filing a PGR, or even that they are at risk of suit until receiving a demand letter or a complaint. Once the leverage of a demand letter or the cost of district court litigation is applied, it makes much more sense for companies to order (and pay for) an IPR of a patent, where risk and ongoing cost combine to lay out a financial incentive to file these expensive proceedings. Meanwhile, preemptive filing immediately upon a

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<sup>142</sup> See *infra* Appendix A.

<sup>143</sup> See *infra* Appendix A.

<sup>144</sup> See Dennis Crouch, *AIA Patents: 20% of Newly Issued Patents*, PATENTLY-O, (Nov. 20, 2015), <http://patentlyo.com/patent/2015/11/patents-newly-issued.html>.

patent's issuance is likely to be speculative, and costs even more than an IPR to file, with potentially broader estoppel. And yet in the face of all this, parties have still used the procedure, demonstrating that it will have and continues to matter to any defensive patent strategy.

After analyzing the early cases, it appears that, just as in IPR, obviousness grounds remain the most likely grounds to merit institution, although there have been surprising results in PGR after the *Alice* decision. The unique forum PGR presents for interesting, technical § 112 issues makes PGR the forum of choice, if available, for indefiniteness challenges.

### A. Instituted Cases

#### 1. The *Leachman* Cases

The issue in the *Leachman* cases was patents reciting system and method claims relating “generally to genetic quality and relative market value of livestock.”<sup>145</sup> The petitioner sought to invalidate 20 claims under §§ 101, 102, and 103, asserting that the claims recited the “abstract idea of livestock valuation using fundamental concepts and algorithms well-known in the industry,” and that the claims were anticipated and obvious in view of prior art.<sup>146</sup>

In describing the specification for both patents, the petitioner claimed that the patents claimed systems and methods relating to the fundamental economic principle of calculating the “relative market value” of animals based on certain characteristics including physical and genetic traits.<sup>147</sup> This involved a computer-implemented process.<sup>148</sup> The patents sought to enable farmers to sell high quality livestock for premium prices, while protecting buyers from paying too much for duds.<sup>149</sup> In 2013, during the prosecution history of one of the patents—the ‘888 patent—the ‘888 patent was rejected under § 103 as obvious.<sup>150</sup> After the patent owner responded to the rejection, arguing, among other things, that some of the prior art used was

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<sup>145</sup> Am. Simmental Ass’n v. Leachman Cattle of Colo., LLC, No. PGR2015-00003, Paper 19, at 2, 2015 WL 3880491, at \*2 (P.T.A.B. June 19, 2015).

<sup>146</sup> Petition for Post-Grant Review at 1, Am. Simmental Ass’n v. Leachman Cattle of Colo., LLC, No. PGR2015-00003, Paper 19 (P.T.A.B. June 19, 2015).

<sup>147</sup> See Am. Simmental Ass’n, No. PGR2015-00003, Paper 19, at 2.

<sup>148</sup> *Id.* at 13.

<sup>149</sup> See Petition for Post-Grant Review, *supra* note 146, at 4.

<sup>150</sup> See *id.* at 6.

improper, the notice of allowance was issued.<sup>151</sup> The petitioner argued that due to the similarity between the claims in the two patents, the prosecution history of the '888 patent was relevant to the patentability of both patents.<sup>152</sup>

The petitioner pointed out that the patent owner had filed multiple continuation applications claiming priority to the patents at issue, and that two of the continuation patents with similar claims to the patents at issue had been rejected in view of the Supreme Court's decision in *Alice*.<sup>153</sup> Accordingly, the petitioner argued that had *Alice* been decided by the Supreme Court before the patents at issue, the USPTO would have rejected all 20 claims of the patents at issue under the *Alice* analysis.<sup>154</sup>

The patent owner, on the other hand, rebutted petitioner's arguments that both patents were directed to an "abstract idea," and that the patents did not embody "significantly more" than an abstract idea.<sup>155</sup> With respect to petitioner's claim that the patents were directed to the abstract idea of animal valuation, the patent owner pointed out that the terms "animal," "validity," and "animal valuation" were not present in either patent.<sup>156</sup> Instead, the patent owner argued that the claims were "directed to 'systems and methods of providing an online genetic merit scorecard that include the determined relative market value of a sale group of cattle that are fed and harvested for beef production and ranking of genetic merits of the group.'"<sup>157</sup> The patent owner argued that its characterization should be accepted because, among other reasons, "every method can be generalized to the point of abstraction if the claim language is ignored."<sup>158</sup> The patent owner then argued that the patents, even directed to an abstract idea, disclosed "significantly more" because, *inter alia*, the claims are examples of "non-generic, non-conventional tangible structures that perform specific functions that take the claimed invention of the [patents at issue] beyond an

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<sup>151</sup> *See id.* at 7.

<sup>152</sup> *See id.* at 39.

<sup>153</sup> *Id.* at 29.

<sup>154</sup> *Id.*

<sup>155</sup> *See Am. Simmental Ass'n v. Leachman Cattle of Colo., LLC*, No. PGR2015-00003, Paper 19, at 15–17, 2015 WL 3880491, at \*11–12 (P.T.A.B. June 19, 2015).

<sup>156</sup> *Id.* Patent Owner's Preliminary Response at 28.

<sup>157</sup> *See Am. Simmental Ass'n*, No. PGR2015-00003, Paper 19, at 12.

<sup>158</sup> *Id.* Patent Owner's Preliminary Response at 27 (citing *Google, Inc. v. Simpleair Inc.*, No. CBM2014-00170, Paper 13, at 16 (P.T.A.B. Jan. 1, 2015)).

abstract idea.”<sup>159</sup> Additionally, the patent owner argued that, similar to *Diehr*, the claims of the patents at issue add significantly more to the abstract idea because the claims “solve a practical problem in a conventional industry [practice] in a technologically advanced manner.”<sup>160</sup>

The Board set forth the relevant law as follows:

In determining whether a claim falls within the excluded category of abstract ideas, we are guided in our analysis by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. In accordance with that framework, we first determine whether the claim is “directed to” a patent-ineligible abstract idea.

The patent-ineligible side of the spectrum includes fundamental economic practices; mathematical formulas; and basic tools of scientific and technological work. On the patent-eligible side of the spectrum are physical and chemical processes, such as curing rubber, “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores,” and a process for manufacturing flour.

If the claim is “directed to” a patent-ineligible abstract idea, we then consider the elements of the claim—both individually and as an ordered combination—to assess whether the additional elements transform the nature of the claim into a patent-eligible application of the abstract idea. This is a search for an “inventive concept”—an element or combination of elements sufficient to ensure that the claim amounts to “significantly more” than the abstract idea itself.<sup>161</sup>

After analyzing the petitioner and patent owner’s arguments as to whether the claims were directed to an “abstract idea,” the Board found that it agreed “with Petitioner that the claims appear to be directed largely to

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<sup>159</sup> *Id.* at 34 (citing *Apple v. Sightsound*, No. CBM2013-00019, Paper 17, at 18–19 (P.T.A.B. Oct. 8, 2013) (“The ‘first memory,’ ‘second memory,’ ‘transmitter,’ ‘receiver,’ and ‘telecommunications line’ components, and the specific functions performed using those components, represent meaningful limitations on the scope of the claim that take it beyond the abstract concept of selling music.”).

<sup>160</sup> *Am. Simmental Ass’n*, No. PGR2015-00003, Paper 19, at 17.

<sup>161</sup> *Id.* at 10–11 (internal citations omitted).



applications of mathematical formulas and algorithms in the field of animal valuation, which would support Petitioner's proffered fundamental concept."<sup>162</sup> The Board supported this finding with a section of the specification which read, in part, "Embodiments of the present invention relate generally to the field of genetic quality and relative market value of livestock."<sup>163</sup> Addressing the patent owner's argument that the claims disclosed an "online genetic merit scorecard," the Board found that "in light of the Specification, such recitations are merely features of an exemplary embodiment for implementing the fundamental concept identified by Petitioner."<sup>164</sup> In addressing the patent owner's argument that all claims are potentially abstract ideas when over-generalized, the Board found that the "unambiguous disclosure in the Specification as to the nature of the invention indicates to us that Petitioner has not over-generalized here."<sup>165</sup> Furthermore, the Board was persuaded by the petitioner and its expert's argument and evidence, respectively, that valuation of animals based on genetic and physical traits is a fundamental practice that has been routine "for centuries – likely millennia. . . ."<sup>166</sup> Thus, the Board found the claims at issue to be directed to a patent-ineligible abstract idea.<sup>167</sup>

Turning to the issue of whether the claims at issue recited "significantly more" than an abstract idea, the Board agreed with the petitioner in finding that "claims merely recite generic computer hardware that is used in a conventional manner, which has been found in *Alice* and other decisions by our reviewing courts as insufficient to transform an otherwise patent-ineligible abstract idea into patentable subject matter."<sup>168</sup> Specifically, the Board found that the recitations were to "generic computer hardware used in a conventional manner."<sup>169</sup> The Board was not able to discern from the record how the claims at issue used the computer hardware differently than "their conventional generic use."<sup>170</sup> For example, any commercially available processor could be used to effectuate the claimed system and

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<sup>162</sup> *Id.* at 13.

<sup>163</sup> *Id.*

<sup>164</sup> *Id.* at 14.

<sup>165</sup> *Id.*

<sup>166</sup> *Id.*

<sup>167</sup> *Id.* at 15.

<sup>168</sup> *Id.*; 2015 WL 3880491, at \*11.

<sup>169</sup> *Am. Simmental Ass'n*, No. PGR2015-00003, Paper 19, at 15

<sup>170</sup> *Id.*

method.<sup>171</sup> Additionally, the Board disagreed with the patent owner that the claims at issue were similar to those found patent-eligible in *Diehr* because, *inter alia*, the problem the patents appeared to solve was to “determine what the actual value of the livestock is, and more specifically what premium or discount the livestock should command based on these desired genetic merits,” which is not technological in manner.”<sup>172</sup> Accordingly, the Board found that the patents at issue did not add “significantly more” to the abstract idea, and thus failed to recite statutory subject matter under Section 101.<sup>173</sup>

## 2. *Netsirv*

In *Netsirv*, the Board instituted PGR regarding a patent (the ‘166 patent) titled “System and Method for Storage Container Tracking and Delivery.”<sup>174</sup> The patent at issue related to storage container tracking and delivery in the physical storage field.<sup>175</sup> The petitioner challenged the ‘166 patent as being directed to abstract idea of “containerized storage,” and the patent owner did not rebut the challenge.<sup>176</sup> In its decision instituting the PGR, the Board found that the patent failed the first step of the *Alice* framework because it was directed generally to a “bailment scheme.”<sup>177</sup> The Board explained “[w]e recognize that the claims recite that the bailment scheme uses containers designated for storing the property of a particular customer, as opposed to storing their property in something other than a container.”<sup>178</sup> However, the Board continued “[s]uch a restriction to the particular type of bailment scheme, however, does not render the claims any less abstract, because this appears to be nothing more than a particular operating environment within the abstract idea of bailment schemes.”<sup>179</sup> Thus, the Board found the patent at issue to be directed to a patent ineligible

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<sup>171</sup> *See id.*

<sup>172</sup> *Id.* at 17, 2015 WL 3880491, at \*12.

<sup>173</sup> *See id.* at 18, 2015 WL 3880491, at \*13.

<sup>174</sup> No. PGR2015-00009, Paper 10, at 2, 2015 WL 10853972, at \*1 (P.T.A.B. Aug. 4, 2015).

<sup>175</sup> *Id.*

<sup>176</sup> *Id.* at 8–9.

<sup>177</sup> *Id.* at 8.

<sup>178</sup> *Id.* at 9.

<sup>179</sup> *Id.*

abstract idea because “bailment schemes are, in general, ‘a fundamental economic practice long prevalent in our system of commerce.’”<sup>180</sup>

Turning to the second step of the *Alice* framework, the Board agreed with the petitioner’s un rebutted argument that the patent at issue did not disclose any meaningful limitations that would demonstrate a patent-eligible “inventive concept.”<sup>181</sup> The Board first analyzed whether the patent failed under the machine-or-transformation test. With respect to claim 1, the Board, based on the record, was persuaded that “that nothing in the claims or specification indicates that the computer or the device(s) are special purpose.”<sup>182</sup> Thus, the Board found the patent at issue to not be tied to a particular machine, and thus fails the machine-or-transformation test.<sup>183</sup> Next, the Board found the patent to fail, as well, under the second prong of the *Alice* analysis.<sup>184</sup> The Board agreed with the petitioner’s un rebutted argument that the various bookkeeping items related to the storage claims did not demonstrate an “inventive concept.”<sup>185</sup> Thus, the Board found the patent at issue to be, more likely than not, unpatentable under § 101.<sup>186</sup>

The case proceeded with very little briefing, limited only the Patent Owner’s Response and the Petitioner’s Reply without declarations or deposition; the parties waived the optional oral hearing.<sup>187</sup> On final written decision, the Board panel affirmed that all claims were unpatentable under section 101.<sup>188</sup> There, no appeal was taken.

### 3. *Altaire Pharms., Inc.*

In *Altaire*, the Board reviewed a petition concerning Patent 8,859,623 B1 (“the ‘623 patent”), relating to “methods and compositions of stabilizing phenylephrine formations.”<sup>189</sup> The patent—a substance primarily used for

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<sup>180</sup> *Id.* (quoting *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2356 (2014)).

<sup>181</sup> *Id.* at 8 (quoting *Alice*, 134 S. Ct. at 2355).

<sup>182</sup> *Id.* at 10.

<sup>183</sup> *Id.*

<sup>184</sup> *Id.* at 11.

<sup>185</sup> *Id.* (quoting *Alice*, 134 S. Ct. at 2355).

<sup>186</sup> *Id.* at 12.

<sup>187</sup> *Netsirv v. Boxbee, Inc.*, No. PGR2015-00009, Paper 17 (P.T.A.B. Nov. 4, 2015); *Id.* at Paper 18.

<sup>188</sup> *Id.* at Paper 20, at 21.

<sup>189</sup> *Altaire Pharm., Inc. v. Paragon Biotech, Inc.*, No. PGR2015-00011, Paper 14, at 3, 2015 WL 9599240, at \*2 (P.T.A.B. Nov. 16, 2015).

medical purposes, including as a decongestant—provided “a composition comprising at least 95% R-phenylephrine hydrochloride and an aqueous buffer, wherein the composition substantially maintains an initial chiral purity of R-phenylephrine hydrochloride for at least 6 months stored between –10 to 10 degree Celsius.”<sup>190</sup> The patent also disclosed a method of administering the substance.<sup>191</sup>

The petition challenged thirteen claims as unpatentable on grounds of obviousness—under *Altaire’s* product, as well as several other references—and of indefiniteness under 35 U.S.C. § 112.<sup>192</sup> In addition to rebutting the asserted grounds of unpatentability, the Patent Owner, Paragon Biotech, Inc. (“Patent Owner” or “Paragon”) requested that the Board dismiss the petition because, it alleged, the Petitioner, *Altaire Pharms., Inc.* (“Petitioner” or “*Altaire*”) had failed to identify all real parties in interest.<sup>193</sup> The Patent Owner further challenged *Altaire’s* use of its CEO as an expert.<sup>194</sup> The Board agreed with the Patent Owner that *Altaire’s* CEO was a fact witness and not an expert.<sup>195</sup> However, the Board agreed with *Altaire* that it complied with the requirement that all real parties in interest be disclosed, and that, more likely than not, at least one claim was unpatentable as obvious in view of *Altaire’s* product.<sup>196</sup> *Altaire’s* petition, on the other hand, neither showed a basis to institute on the ground of obviousness in view of the other references, nor on the indefiniteness ground.<sup>197</sup>

The *Altaire* case proceeded through trial, with experienced PTAB litigator Michael Rosato—the lawyer most frequently appearing before the Board in 2016—at the helm, and resulted in all claims being found not

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<sup>190</sup> *Id.*

<sup>191</sup> *Id.*

<sup>192</sup> *Id.* at 5.

<sup>193</sup> *Id.* at 6.

<sup>194</sup> *Id.* at 14 (“Patent Owner argues that Petitioner’s witness, Mr. Sawaya, is a fact witness, and not an expert.”).

<sup>195</sup> *Id.*

<sup>196</sup> *Id.* at 8, 15 (“In this inquiry, we are persuaded by Mr. Sawaya’s testimony that Saw Aque, a company unrelated to Petitioner and in a line of business different from Petitioner’s, ‘did not direct, control, or fund the preparation or filing of the Petition.’”) (“In sum, based on the current record, we find that Petitioner has offered sufficient evidence to show that it is more likely than not that claim 1 is unpatentable as obvious over *Altaire’s* Product.”).

<sup>197</sup> *Id.* at 19.

unpatentable.<sup>198</sup> That is, the patent survived in its entirety, the first (and, to date) only patent to undergo review and survive in full.<sup>199</sup> That patent, which is listed in the Orange Book as covering Phenylphrine Hydrochloride Ophthalmic Solution®, is a vasoconstrictor, decongestant, and mydriatic used for a variety of ophthalmic conditions and procedures, and the patent is not set to expire until 2033, making it an important test case for what early unsuccessful challenges will do to the strength and widespread licensing of certain strong patent rights.

As of publication, the case was currently on appeal.<sup>200</sup>

#### 4. The *Global Tel\*link* Cases

In the *Global Tel\*link* cases, the Petitioner, Global Tel\*link Corp. (“Petitioner” or “Global”) challenged claims in two patents (“the ‘280 patent” and “the ‘525 patent”).<sup>201</sup> The Petitioner challenged the ‘280 patent under 35 U.S.C. §§ 101 and 103.<sup>202</sup> The Petitioner challenged the ‘525 patent under 35 U.S.C. §§ 101–103.<sup>203</sup> “The ‘280 Patent relate[d] to creating, maintaining, and making available communication detail records (CDRs) including media in ‘controlled-environment facilities.’”<sup>204</sup> The ‘525 patent relates to “on-demand video communications for controlled-environment facility residents, such as prisoners.”<sup>205</sup> Both patents generally related to video and telephone communications.<sup>206</sup>

The Board instituted PGR review, agreeing with the Petitioner that—more likely than not—the asserted claims were unpatentable as obvious under 35 U.S.C. § 103.<sup>207</sup> However, the Board was not persuaded that the

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<sup>198</sup> *Altaire Pharm., Inc. v. Paragon Biotech, Inc.*, No. PGR2015-00011, Paper 48, at 21 (P.T.A.B. Nov. 14, 2016).

<sup>199</sup> *Id.*

<sup>200</sup> *Id.* at Paper 51 (Jan. 13, 2017) (Notice of Appeal).

<sup>201</sup> *Glob. Tel\*link Corp. v. Securus Techs., Inc.*, No. PGR2015-00013, Paper 18, at 2 (P.T.A.B. Dec. 8, 2015) [hereinafter *Global I*]; *Glob. Tel\*link Corp. v. Securus Techs., Inc.*, No. PGR2015-00014, Paper 19, at 2, 2015 WL 9599185, at \*1 (P.T.A.B. Dec. 2, 2015) [hereinafter *Global II*].

<sup>202</sup> *Global I*, No. PGR2015-00013, Paper 18, at 4–5.

<sup>203</sup> *Global II*, No. PGR2015-00014, Paper 19, at 5–6, 2015 WL 9599185, at \*3.

<sup>204</sup> *Global I*, No. PGR2015-00013, Paper 18, at 2 (quoting U.S. Patent 8,855,280, at [57]).

<sup>205</sup> *Global II*, No. PGR2015-00014, Paper 19, at 2, 2015 WL 9599185, at \*2.

<sup>206</sup> *Id.* at 3; *Global I*, No. PGR2015-00013, Paper 18, at 4.

<sup>207</sup> *Global I*, No. PGR2015-00013, Paper 18, at 17, 21; *Global II*, No. PGR2015-00014, Paper 19, at 27, 30, 2015 WL 9599185, at \*15.

asserted claims were unpatentable under § 101.<sup>208</sup> Further, the Board declined to institute *Global II* on the basis of anticipation of the ‘525 patent.<sup>209</sup>

Interestingly, after a hard-fought proceeding full of motions practice, oral hearings, motions to exclude evidence, and extensive briefing, the Board held that some, but not all, claims were unpatentable under the instituted grounds, again resulting in some claims emerging from review.<sup>210</sup> As of publication, a request for rehearing is pending in *Global I*.<sup>211</sup> The appeal period appears to have lapsed for *Global II*, but the request for rehearing in *Global I* has tolled the period and could still result in an appeal there.

### 5. *Sexing Techs.*

In *Sexing*, the Petitioner, Inguran, LLC d/b/a SEXING Techs. (“Petitioner” or “Sexing”) challenged fourteen claims of Patent No 8,933,395 B2 (“the ‘395 Patent”).<sup>212</sup> The ‘395 Patent related to “‘a method and apparatus to identify at least one component from a plurality of components in a fluid mixture,’ including ‘a detector apparatus which detects and identifies selected components’ and ‘a laser which emits a laser beam which damages or kills selected components of the plurality of components.’”<sup>213</sup> The Petitioner challenged the claims under 35 U.S.C. §§ 112 (enablement and indefiniteness), 102, and 103.<sup>214</sup> The Patent Owner, in addition to rebutting the asserted grounds of invalidity, sought to dismiss the petition because it argued that the ‘395 patent was entitled to a pre-AIA effective filing date.<sup>215</sup> The Board, however, was unpersuaded that the ‘395 benefited from an earlier filing date.<sup>216</sup>

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<sup>208</sup> *Global I*, No. PGR2015-00013, Paper 18, at 11; *Global II*, No. PGR2015-00014, Paper 19, at 16, 2015 WL 9599185, at \*9.

<sup>209</sup> *Global II*, No. PGR2015-00014, Paper 19, at 17–18, 2015 WL 9599185, at \*10.

<sup>210</sup> *Global I*, No. PGR2015-00013, Paper 43 (Nov. 29, 2016); *Global II*, No. PGR2015-00014, Paper 50 (P.T.A.B. Dec. 7, 2016).

<sup>211</sup> *Global I*, No. PGR2015-00013, Paper 44 (P.T.A.B. Nov. 2, 2016).

<sup>212</sup> *Inguran, LLC v. Premium Genetics Ltd.*, No. PGR2015-00017, Paper 8, at 2, 2015 WL 10860848, at \*2 (P.T.A.B. Dec. 22, 2015).

<sup>213</sup> *Id.* at 2–3 (quoting U.S. Patent 8,933,395, at [57]).

<sup>214</sup> *Id.* at 5.

<sup>215</sup> *Id.* at 11.

<sup>216</sup> *Id.* at 17–18.

Turning to the asserted grounds of invalidity, the Board was not persuaded that the asserted claims were unpatentable under § 112.<sup>217</sup> The Board, however, was persuaded that—more likely than not—the asserted claims were unpatentable as anticipated or obvious.<sup>218</sup> Accordingly, the Board instituted *Sexing*.<sup>219</sup>

Interestingly, after briefing and oral argument but before the final written decision was handed down, the patent owner disclaimed claims 2–14, leaving only claim 1 remaining at issue.<sup>220</sup> On final written decision, the Board claim 1 unpatentable on all grounds instituted on.<sup>221</sup> The appellate period had yet to toll as of publication.

### 6. *Telebrands Corp.*

In *Telebrands Corp. v. Tinnus Enterprises, LLC*, Petitioner, Telebrands Corp., filed a petition for PGR seeking review of claims 1–14 of the ‘066 patent.<sup>222</sup> The patent at issue is titled “System and Method for Filling Containers with Fluids,” and was issued Sept. 22, 2014.<sup>223</sup> The illustrative claim, Claim 1, discloses, in essence, a series of holes and tubes connected together for the purpose of filling containers with fluids.<sup>224</sup> The Petition seeks review of the ‘066 patent under Sections 112(a), 112(b) and 103(a).<sup>225</sup>

With respect to the indefiniteness arguments, the Board agreed with some of Petitioner’s arguments, and disagreed with others. With respect to an argument relating to “the connecting force” relating to a “hollow tube” the Board disagreed with Petitioner because Petitioner relied “on an erroneous of construction of ‘not less than’ as meaning greater than.”<sup>226</sup> The Board noted that “[a] POSA would have understood that an elastic fastener . . . could be configured to clamp a container to a flexible hollow

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<sup>217</sup> *Id.* at 23.

<sup>218</sup> *Id.* at 34.

<sup>219</sup> *Id.* at 35.

<sup>220</sup> *See* Inguran, LLC v. Premium Genetics Ltd., No. PGR2015-00017, at Ex. 2007 (P.T.A.B. Dec. 20, 2016).

<sup>221</sup> *See id.* at Paper 22, at 37.

<sup>222</sup> *Telebrands Corp. v. Tinnus Enters., LLC*, No. PGR2015-00018, Paper 7, at 2, 2016 WL 270152, at \*1 (P.T.A.B. Jan. 4, 2016).

<sup>223</sup> *Id.* at 2–3.

<sup>224</sup> *Id.* at 3.

<sup>225</sup> *Id.* at 5–6.

<sup>226</sup> *Id.* at 11.

tube with sufficient constrictive force to hold the container to the tube. . . .”<sup>227</sup> On the other hand, the Board agreed with Petitioner that the Claim language relating to the “shake-to-detach” feature was indefinite.<sup>228</sup> The Board analyzed the feature, as instructed by MPEP § 2173.02(II), in light of (1) the patent disclosure; (2) the teachings of the prior art; and (3) “the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.”<sup>229</sup> In light of these factors, the Board agreed with Petitioner that the scope of the term “filled” or “substantially filled,” as well as the extent to which a “filled” container must be “shak[en],” is more likely than not indefinite.<sup>230</sup>

The Board also agreed with some of Petitioner’s arguments that some of the claims were obvious under § 103. Notably, although the Board acknowledged that, as Patent Owner argued “[Petitioner] has not pointed to a single instance in any prior art that discloses ‘shaking the hollow tubes in a state in which the containers are substantially filled with water overcomes the connecting force and causes the containers to detach from [the] hollow tubes,’”<sup>231</sup> the Board did not find that persuasive. The Board observed that “because the challenged claims are apparatus claims, which must be distinguished from the prior art in terms of *structure* rather than function.”<sup>232</sup> Thus, the Board instituted the PGR finding that certain claims were—more likely than not—indefinite under § 112(b) and certain claims were obvious under § 103(a).<sup>233</sup>

On final written decision after a lengthy and fully briefed trial including multiple primary and supplemental declarations but without any motion to amend, the Board found that all instituted claims 1–6, 8, and 10–14 unpatentable under one of the grounds instituted, namely, 112(b).<sup>234</sup> But it found that it could not reach the 103 grounds, as it held that the claims were indefinite.<sup>235</sup> The appeals period has not yet tolled as of publication.

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<sup>227</sup> *Id.*

<sup>228</sup> *Id.*

<sup>229</sup> *Id.* at 12.

<sup>230</sup> *Id.* at 11–12.

<sup>231</sup> *Id.* at 24 (quoting Preliminary Response for Patent Owner at 52–53, *Telebrands Corp. v. Tinnus Enters., LLC*, PGR2015-00018 (Jan. 4, 2016)).

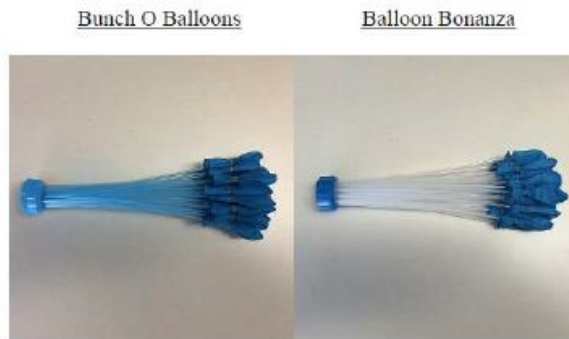
<sup>232</sup> *Id.* at 25 (emphasis in original).

<sup>233</sup> *Id.* at 26–27.

<sup>234</sup> *Id.* at Paper 75 (Dec. 30, 2016).

<sup>235</sup> *Id.*





Appellee Br. 11.

**Figure 5: The products at issue in *Telebrands* (from Appellant’s Brief at 11).<sup>236</sup>**

*Telebrands* has an interesting parallel aspect to note and discuss. Here, there was a parallel district court action, where nine days into the proceeding, the patent owner sought, and Eastern District of Texas Judge Robert Schroeder, III, granted, a preliminary injunction over the offending product—a toy for filling water balloons.<sup>237</sup>

The Federal Circuit<sup>238</sup> upheld the preliminary injunction, and did so after the PTAB had held the claims unpatentable as indefinite under 112(b).<sup>239</sup> This was despite the fact that the Magistrate judge had held as part of the preliminary injunction that *Telebrands*’ indefiniteness and enablement arguments “failed to raise a substantial question of validity.”<sup>240</sup> They did so by pointing out that the standard of review on the findings of the magistrate were abuse of discretion, which they could not find in the case on appeal. In a footnote, the panel wrote:

We are aware that the PTAB issued a Final Written Decision on December 30, 2016, concluding that the claims of the ‘066 patent are indefinite. The PTAB’s decision is not binding on this court, and based on the record before us

<sup>236</sup> *Tinnus Enters., LLC v. Telebrands Corp.*, Fed. Cir. 2016-1410, slip op. at 3 (Jan. 24, 2017).

<sup>237</sup> *Tinnus Enters., LLC v. Telebrands Corp.*, No. 6:15-cv-00551 RWS-JDL, Mag. Op., 2015 WL 11089479, at \*10.

<sup>238</sup> *Id.* at 4 (citing the patent at issue, Fig. 1).

<sup>239</sup> *Id.* at 7.

<sup>240</sup> *Id.*

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and the applicable standard of review, it does not persuade us that the district court abused its discretion in granting the preliminary injunction. The parties are, of course, free to ask the district court to reconsider its preliminary injunction in light of the PTAB's Decision.<sup>241</sup>

The court went further, disagreeing with Telebrands that there would be a motivation to combine the same references at issue in the PGR and passed on by the Board.

To further complicate issues, the defendants sought and District Court judge granted an emergency stay of the case pending the outcome of the appeal from the PGR, apparently leaving the preliminary injunction in place.<sup>242</sup>

### 7. *US Endodontics, LLC*

In *US Endodontics, LLC v. Gold Standard Instruments, LLC*, Petitioner, US Endodontics, LLC, requested review of certain claims of the '991 patent.<sup>243</sup> The '991 patent, titled "Dental and Medical Instruments Comprising Titanium," "explains that flexibility is a desirable attribute for endodontic devices such as 'files,' but that in the prior art the 'shank' portions of files of larger sizes are 'relatively inflexible,' which impedes the therapy of a root canal."<sup>244</sup> Thus, according to the patent at issue, "there remains a need for endodontic instruments that 'have high flexibility, have high resistance to torsion breakage, maintain shape upon fracture, can withstand increased strain, and can hold sharp cutting edges.'"<sup>245</sup> Petitioner challenges certain claims under §§ 112(a) (enablement and written description), 102 and 103.<sup>246</sup>

The Board agreed with Petitioner with respect to the § 112 arguments. The Board found that the record, in conjunction with expert testimony, certain claims "fail[ed] to achieve the claimed permanent deformation

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<sup>241</sup> *Id.* at 13 n.7.

<sup>242</sup> *Tinnus Enters., LLC et al v. Telebrands Corporation et al*, TXED-6-15-cv-00551 ECF 308 (P.T.A.B. Jan. 24, 2017) (staying case in light of defendant's emergency motion pursuant to PGR final ruling).

<sup>243</sup> No. PGR2015-00019, Paper 17, at 2 (P.T.A.B. Jan. 29, 2016).

<sup>244</sup> *Id.* at 3 (quoting U.S. Patent 8,876,991, at [2:4–26]).

<sup>245</sup> *Id.* (quoting '991 Patent, at [2:50–55]).

<sup>246</sup> *Id.* at 6.

characteristic for all temperatures within the claimed ranges.”<sup>247</sup> Further, the same claims, for similar reasons, were not enabled.<sup>248</sup> Thus, the Board was “not convinced that the invention recited in [certain claims] should be considered ‘a generally operable invention’ or that the effect of the claimed method has been ‘sufficiently demonstrated to characterize a generic invention.’”<sup>249</sup> According the Board was “persuaded that it is more likely than not that claims 12–16 are unpatentable for failure to comply with the enablement requirement of 35 U.S.C. § 112(a). . . . [and] written description requirement of 35 U.S.C. § 112(a).”<sup>250</sup>

After institution, the parties filed extensive briefing, including motions for observation on depositions, and in a final written decision, the Board found all challenged claims 12–16 unpatentable on 102 anticipation and 112(a) enablement and written description grounds.<sup>251</sup> Having found the claims unpatentable on three separate grounds, the Board found that they “need not reach the additional anticipation and obviousness grounds on which Petitioner challenges the same claims,” adding that:

Declining to reach those additional grounds is particularly appropriate in this case because our analysis of eligibility for post-grant review is closely bound up with our enablement and written description analyses. As such, in the event that our reviewing court determines that we erred in the enablement and written description analyses set forth above, it is unclear whether the ‘991 patent would be eligible for post-grant review.<sup>252</sup>

Also of note, the Board granted a motion to exclude certain evidence as inadmissible hearsay.<sup>253</sup> The appeals period had not yet tolled as of the publication of this article.

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<sup>247</sup> *Id.* at 18.

<sup>248</sup> *Id.*

<sup>249</sup> *Id.* at 19 (quoting *Capon v. Eshhar*, 418 F.3d 1349, 1359 (Fed. Cir. 2005)).

<sup>250</sup> *Id.* at 25–26. The Board was also persuaded that Petitioner had met its burden with respect to its anticipation arguments, and some of its obviousness arguments. *Id.* at 28, 35. *But see id.* at 37.

<sup>251</sup> *Id.* at Paper 54, at 44.

<sup>252</sup> *Id.* at 37–38.

<sup>253</sup> *Id.* at 42.

### 8. *Core Survival, Inc.*

In *Core Survival, Inc. v. S&S Precision, LLC*, Petitioner, Core Survival, sought review of certain claims in the ‘292 patent.<sup>254</sup> The ‘292 patent, titled “Multi-Spectrum Lighting Device with Plurality of Switches,” discloses “a multi-spectrum emitting device.”<sup>255</sup> Petitioner argued that the claims at issue were, more likely than not, unpatentable under § 103.<sup>256</sup>

The Board instituted review over four objections from Patent Owner. First, Patent Owner argued “that the Petition fails to meet ‘its initial burden of demonstrating that the ‘292 patent is not entitled to the’” asserted priority date.<sup>257</sup> The Board disagreed, noting that “the only showing Petitioner needed to make is that ‘the art must have existed as of the date of invention, presumed to be the filing date of the application until an earlier date is proved.’”<sup>258</sup> Second, Patent Owner contended that “the Petition should be denied because the Petitioner did not perform an adequate analysis under *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).”<sup>259</sup> Again, the Board disagreed finding that the “Petitioner [did] explain[] what it sees as the difference between the prior art and the claimed invention—whether they disclose a substantially curved emitting surface.”<sup>260</sup> Third, Patent Owner argued “that Petitioner improperly uses ‘design choice’ as a rationale for obviousness of the claimed subject matter.”<sup>261</sup> But, the Board found that Petitioner did do so because Petitioner “also articulated other reasons for combining the references.”<sup>262</sup> Lastly, Patent Owner contended “that the Petition should be denied because Petitioner failed to provide constructions for terms ‘material to determining whether trial should be instituted.’”<sup>263</sup> The Board disagreed noting that “[a] petitioner cannot anticipate every claim construction argument that a patent owner will raise[,]” and that

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<sup>254</sup> No. PGR2015-00022, Paper 8, at 1, 2016 WL 791751, at \*1 (P.T.A.B. Feb. 19, 2016).

<sup>255</sup> *Id.* at 2 (quoting U.S. Patent 8,882,292, at [54]).

<sup>256</sup> *Id.* at 5.

<sup>257</sup> *Id.* at 7 (quoting Preliminary Response for Patent Owner at 15, *Core Survival, Inc. v. S & S Precision, LLC*, PGR2015-00022 (Feb. 19, 2016)).

<sup>258</sup> *Id.* at 8 (quoting *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 449 (Fed. Cir. 1986)).

<sup>259</sup> *Id.* at 10 (citing Preliminary Response for Patent Owner, *supra* note 257, at 17–20).

<sup>260</sup> *Id.*

<sup>261</sup> *Id.* at 11 (quoting Preliminary Response for Patent Owner, *supra* note 257 at 20).

<sup>262</sup> *Id.*

<sup>263</sup> *Id.* (quoting Preliminary Response for Patent Owner, *supra* note 257 at 25).

“[t]his is particularly true when there has been no other litigation between the parties regarding the patent.”<sup>264</sup>

Shortly after institution and after a failed request for rehearing by the patent owner, the parties settled and the Board terminated the proceeding.<sup>265</sup>

## B. Decisions Denying Institution

### 1. *Front Row Techs.*

In *Front Row Techs., LLC v. MLB Advanced Media, LP*, Petitioner sought review of certain claims in the ‘638 patent.<sup>266</sup> The Board denied the Petition because it failed to demonstrate eligibility for post-grant review.<sup>267</sup> In its analysis, the Board recalled that, under AIA § 6(f)(2)(A), “post-grant review process is available only to patents subject to the first-inventor-to-file provisions of the AIA.”<sup>268</sup> Specifically, under AIA § 3(n)(1) “applications that have an effective filing date on or after Mar. 16, 2013.”<sup>269</sup> Here, the effective filing date of the application for the ‘638 patent was the actual filing date of Jan. 29, 2010.<sup>270</sup> Accordingly, the patent was not eligible for review.<sup>271</sup>

### 2. *Midwest Industrial Supply*

In *Midwest Industrial Supply, Inc. v. Soilworks LLC*, Petitioner, Midwest Industrial Supply, Inc. challenged twenty-six claims in the ‘592 patent.<sup>272</sup> The patent at issue relates to dust-suppressing compositions of

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<sup>264</sup> *Id.* at 11–12.

<sup>265</sup> *Core Survival, Inc. v. S & S Precision, LLC*, No. PGR2015-00022, Paper 22, at 2–3 (P.T.A.B. June 24, 2016).

<sup>266</sup> No. PGR2015-00023, Paper 8, at 1, 2016 WL 1082093, at \*1 (P.T.A.B. Feb 22, 2016).

<sup>267</sup> *Id.* at 2.

<sup>268</sup> *Id.*

<sup>269</sup> *Id.* (emphasis in original).

<sup>270</sup> *Id.* at 3.

<sup>271</sup> *Id.* at 3–4. Petitioner argued that the effective filing date was Sept. 23, 2013 because the patent at issue included claims that were filed as an amendment as of that date; however, the Board rejected this argument. The Board noted that § 100(i)(1)(A) is clear that the effective filing date is the actual filing date, not the date of a later filed amendment. *Id.* at 3.

<sup>272</sup> No. PGR2016-00004, Paper 9, at 2, 2016 Pat. App. Filings LEXIS 5813, at \*1 (P.T.A.B. May 9, 2016).

synthetic fluid.<sup>273</sup> Petitioner argued that certain challenged claims were unpatentable under §§ 102, 103, and 112.<sup>274</sup> The Board disagreed. With respect to the obviousness claims, the Board found that the Petitioner had, in some cases, failed to provide sufficient evidence of obviousness, and in other cases merely provided conclusory assertions of obviousness.<sup>275</sup> The Board then rejected the Petitioner's arguments with respect to enablement, observing that "[a]ll that is required is a written description that teaches a person of ordinary skill in the art how to make and use the claimed product without undue experimentation."<sup>276</sup> In this case, the "Petitioner does not explain why a person of ordinary skill in the art would require undue experimentation to determine how to mix together the small quantities of pure compounds available from Chevron, and there is no evidence of record that the invention claimed in the '592 patent requires anything more than mixing together certain pure compounds."<sup>277</sup> Lastly, the Petitioner failed to sufficiently explain the importance of testimony that "Chevron 'was able to generate . . . only a small fraction of the range of species making up the claims of the '592 Patent."<sup>278</sup> Accordingly, the Board denied the Petition.<sup>279</sup>

## VI. GROUNDS

Post-grant review allows for all statutory grounds of patentability to be argued before the USPTO. Under 35 U.S.C. § 321(b), a PGR petitioner can challenge post-AIA patents "on any ground that could be raised under paragraph (2) or (3) of section 282(b)."<sup>280</sup> Paragraphs (2) or (3) of 35 U.S.C. § 282 (b) specify the grounds of challenge as "any ground specified in part II as a condition for patentability" as well as § 112 and § 251.<sup>281</sup> That includes statutory-type double patenting, but excludes obviousness-type

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<sup>273</sup> *Id.* at 4.

<sup>274</sup> *Id.* at 2–4.

<sup>275</sup> *Id.* at 12–14.

<sup>276</sup> *Id.* at 18.

<sup>277</sup> *Id.*

<sup>278</sup> *Id.* (alterations in original) (quoting Decl. of John C. Fetzer, at [41]).

<sup>279</sup> *Id.* at 19.

<sup>280</sup> 35 U.S.C. § 321 (2012).

<sup>281</sup> 35 U.S.C. § 282.

double patenting, a judicially created doctrine that has not yet been codified.<sup>282</sup>

### A. *Abstract Ideas Under Section 101*

To be considered patent eligible, an invention must claim a “new and useful process, machine, manufacture, or composition of matter.”<sup>283</sup> However, there are several exceptions.<sup>284</sup> “Laws of nature, natural phenomena, and abstract ideas” are not patentable.<sup>285</sup> In determining whether claims challenged under are not patent eligible because the claims merely disclose an abstract idea, the PTAB follows the two-step framework established in *Alice Corp v. CLS Bank*.<sup>286</sup> The first step asks whether the claim is “directed to” an abstract idea.<sup>287</sup> In accordance with that

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<sup>282</sup> See, e.g., Flibbert et al., *A Not-So-Obvious Threat to Pharm. Patent Portfolios*, COLUM. SCI. & TECH. L. REV. (posted Mar. 13, 2014), <http://stlr.org/2014/03/13/a-not-so-obvious-threat-to-pharmaceutical-patent-portfolios> (where the PTAB held “[o]bviousness-type double patenting is a judicially created, policy based doctrine, not a statutory ‘ground specified in part II as a condition of patentability,’ as required by 35 U.S.C. § 282(b)(2). Therefore, obviousness-type double patenting is not a permissible ground for challenging claims in a covered business method review.” (citing *Apple, Inc. v. Sightsound Techs., Inc.*, CBM2013-00021, Paper 13, at 25, 2013 WL 8538869, at \*16 (P.T.A.B. Oct. 8, 2013))).

<sup>283</sup> 35 U.S.C. § 101; *Am. Simmental Ass’n. v. Leachman Cattle of Colo., LLC*, PGR2015-00003, Paper 19, at 10, 2015 WL 3880491, at \*7 (P.T.A.B. June 19, 2015).

<sup>284</sup> The United States Supreme Court has interpreted § 101 to implicitly have certain exceptions. See, e.g., *Alice Corp. Pty. Ltd. v. CLS Bank Int’l.*, 134 S. Ct. 2347, 2354 (2014); *Am. Simmental Ass’n.*, PGR2015-00003, Paper 19, at 10, 2015 WL 3880491, at \*7.

<sup>285</sup> *Alice*, 134 S. Ct. 2347 at 2354.

<sup>286</sup> *Am. Simmental Ass’n.*, No. PGR2015-00003, Paper 19, at 10, 2015 WL 3880491, at \*7 (“In determining whether a claim falls within the excluded category of abstract ideas, we are guided in our analysis by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*.”) (citing *Alice*, 134 S. Ct. at 2355).

<sup>287</sup> *Id.* at 10–11 (citing *Alice*, 134 S. Ct. at 2356 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk”); *Diamond v. Diehr*, 450 U.S. 175, 184 (1981) (“Analyzing respondents’ claims according to the above statements from our cases, we think that a physical and chemical process for molding precision synthetic rubber products falls within the § 101 categories of possibly patentable subject matter”); *Parker v. Flook*, 437 U.S. 584, 594–595 (1978) (“Respondent’s application simply provides a new and presumably better method for calculating alarm limit values”); *Gottschalk v. Benson*, 409 U.S. 63, 64 (1972) (“They claimed a method for converting binary-coded decimal (BCD) numerals into pure binary numerals”)).

framework, we first determine whether the claim is “directed to” a patent-ineligible abstract idea.<sup>288</sup> The second step, which is only reached in the event that the claim is directed to an abstract idea, asks whether the claim discloses something “significantly more” than an abstract idea, such that it becomes patent eligible.<sup>289</sup>

Since *Alice*, challenges under § 101 have often proved fatal.<sup>290</sup> As of Oct. 2015, 11,444 claims were challenged under § 101, of which 7,132 or 62.3% were adjudicated invalid.<sup>291</sup> Of 155 § 101 challenges in district courts, 109 or 70.3% resulted in the invalidity rulings.<sup>292</sup> Before the PTAB the trend has not been any different. Of 92 challenges under § 101, 77 or 83.7% resulted in institution.<sup>293</sup> However, as Robert Sachs notes, a key question presented by the post-*Alice* wave of invalidity findings is whether patents granted after *Alice* will be invalidated at the same rate.<sup>294</sup> As Sachs points out, the highest concentration of patents invalidated are those patents with a priority date around the turn of the twenty-first century.<sup>295</sup> Two events at that time gave rise to the bump in business-method patent applications.<sup>296</sup> First, the Supreme Court decided *State Street Bank*, holding that there was no rule against business method patents.<sup>297</sup> Second, the dot-

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<sup>288</sup> *Id.* at 11 (citing *Alice*, 134 S. Ct. at 2355).

<sup>289</sup> *Id.* (“If the claim is ‘directed to’ a patent-ineligible abstract idea, we then consider the elements of the claim—both individually and as an ordered combination—to assess whether the additional elements transform the nature of the claim into a patent-eligible application of the abstract idea. This is a search for an ‘inventive concept’—an element or combination of elements sufficient to ensure that the claim amounts to ‘significantly more’ than the abstract idea itself.” (citations omitted)).

<sup>290</sup> Note, however, that—among other differences—challenges under § 101 are analyzed under different standards before the Board and District Courts. *See* *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131 (2016) (“[T]he burden of proof in inter partes review is different than in the district courts: In inter partes review, the challenger (or the Patent Office) must establish unpatentability ‘by a preponderance of the evidence’; in district court, a challenger must prove invalidity by ‘clear and convincing evidence.’” (citing 35 U.S.C. § 316(e); *Microsoft Corp. v. i4i Ltd. P’ship*, 564 U.S. 91, 95 (2011))).

<sup>291</sup> Robert R. Sachs, #*Alicestorm For Halloween: Was It A Trick Or A Treat?*, BILSKIBLOG (Nov. 6, 2015), <http://www.bilskiblog.com/blog/2015/11/alicestorm-for-halloween-its-scary-out-there-.html>.

<sup>292</sup> *Id.*

<sup>293</sup> *Id.*

<sup>294</sup> *Id.*

<sup>295</sup> *Id.*

<sup>296</sup> *Id.*

<sup>297</sup> *Id.*



com bubble resulted in a large number of business-method patents.<sup>298</sup> Thus, because many claims challenged under PGR will have a priority date post-dating *Alice*, the results of § 101 challenges under PGR are particularly intriguing.

They do not disappoint. Early on, just less than fifty percent of challenges under § 101 failed. Four early decisions for institution discussed below addressed challenges under § 101; to date, there have been eight total. In the *Leachman* cases, the Board instituted the PGR based, in part, on a finding that—more likely than not—at least one of the claims challenged under § 101 was not patent eligible.<sup>299</sup> By contrast, in the *Global* cases, the Board found otherwise.<sup>300</sup> In the *Leachman* cases, after reviewing the independent claims, the Board instituted, stating “the claims appear to be directed largely to applications of mathematical formulas and algorithms in the field of animal valuation, which would support Petitioner’s proffered fundamental concept argument.”<sup>301</sup> The Board found support in the specification, as well as in expert testimony, finding that its “determination is supported by Dr. Spangler’s representation that, among other factors, ‘valuing an animal based on its physical traits and lineage has been routine for centuries – likely millenia,’ a representation that, on this record, we find reasonable.”<sup>302</sup>

The Board decided otherwise in *Global I* and *Global II*. In *Global II*, petitioner asserted that “claims 1–25 describe a patent-ineligible abstract idea of ‘upselling controlled environment communication services,’ which is ‘a fundamental economic and conventional business practice.’”<sup>303</sup> Looking at the challenged claims “as a whole,” the Board found that there was “nothing immediately apparent about the three steps recited in claim

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<sup>298</sup> *Id.*

<sup>299</sup> *See* *Am. Simmental Ass’n. v. Leachman Cattle of Colo., LLC*, No. PGR2015-00003, Paper 19, at 27, 2015 WL 3880491 at \*19 (P.T.A.B. June 19, 2015); *Am. Simmental Ass’n. v. Leachman Cattle of Colo., LLC*, No. PGR2015-00005, Paper 52, at 21, 2016 WL 3268607, at \*13 (P.T.A.B. June 13, 2016).

<sup>300</sup> *See Global I*, PGR2015-00013, Paper 18, at 23 (P.T.A.B. Dec. 8, 2015); *Global II*, PGR2015-00014, Paper 19, at 32, 2015 WL 9599185 at \*18 (P.T.A.B. Dec. 2, 2015).

<sup>301</sup> *Am. Simmental Ass’n.*, No. PGR2015-00005, Paper 52, at 15, 2016 WL 3268607, at \*9; *See Am. Simmental Ass’n.*, No. PGR2015-00003, Paper 19, at 13, 2015 WL 3880491, at \*9.

<sup>302</sup> *Am. Simmental Ass’n.*, No. PGR2015-00003, Paper 19, at 14, 2015 WL 3880491, at \*10 (quoting Ex. 1016, Spangler Decl., at [55]); *See Am. Simmental Ass’n.*, No. PGR2015-00005, Paper 52, at 17, 2016 WL 3268607, at \*10 (quoting Ex. 1016, Spangler Decl., at [55]).

<sup>303</sup> *Global II*, No. PGR2015-00014, Paper 19, at 13, 2015 WL 9599185, at \*8 (quoting Petition for Post-Grant Review at 22–24).

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1 . . . that would indicate the claim is directed to the abstract idea of upselling controlled environment communication services.”<sup>304</sup> Further, the Board found that:

The single reference of the ‘525 patent to ‘upsell’ a communication service from a phone call to a video communication . . . is insufficient to limit ‘offer’ recited in claim 1 to ‘upselling’ a communication service or view claim 1 as a whole as being directed to upselling controlled environment communication services.<sup>305</sup>

In *Global I* the petitioner asserted that the claims at issue disclosed the abstract idea of “‘identifying a party to a communication using biometric information,’ which is ‘a ubiquitous part of the human experience’ and attempts to ‘preempt an idea that itself has been routinely performed by humans with a pen and paper for scores of years.’”<sup>306</sup> The Board disagreed, stating:

In determining whether a claim recites an abstract idea, we must examine the claim as a whole. Taking claim 1 as an example, that claim, read as a whole, relates to enabling communication between parties and adding identification of at least one of the parties, through comparison of a digital media file and a signature, to a CDR. This is more than merely identifying a party to a communication; in one respect it is broader than Petitioner’s abstract concept because it does not recite the use of biometric information specifically. Although Petitioner indicates that much of claim 1 is directed to “well-understood, routine, and conventional activities” (Pet. 9), we are not persuaded that such activities would necessarily be performed in the context of Petitioner’s abstract concept. . . . Further, we agree with Patent Owner that “alleged abstract idea is swallowed whole by one portion of a single step of claim 1” (Prelim. Resp. 19), and does not adequately consider the remaining aspects of that same claim. Additionally, Petitioner’s analysis is inadequate with respect to

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<sup>304</sup> *Id.* at 14.

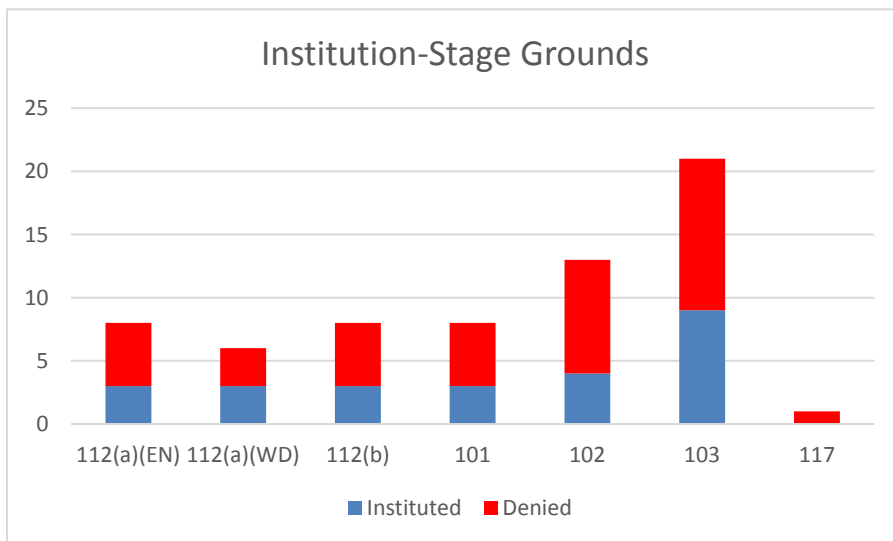
<sup>305</sup> *Id.* at 15 (quoting U.S. Patent 8,929,525, at [4:18–20] (filed Jul. 3, 2014)).

<sup>306</sup> *Global I*, PGR2015-00013, Paper 18, at 9 (Dec. 8, 2015).

independent claims 15 and 18, alleging they contain “only minor (‘draftsman’s art’) differences when compared to claim 1” (Pet. 8), without identifying any real differences between the independent claims and how that would impact any allegedly underlying abstract concept.<sup>307</sup>

Three main points stand out in reviewing the § 101 challenges in these exemplary instituted PGRs. First, the early success of § 101 challenges as to decisions to institute PGRs stands out, particularly when compared to other asserted grounds. Second, it appears clear that *Alice* has had a similarly dramatic impact on PGR institution decisions, as it has had on federal litigation, office actions, and CBMs. Third, despite the impact of *Alice*, the Board may have indicated the types computer-implemented patents would survive future § 101 challenges.

First, the success of §§ 112(a) WD and 101 challenges stands out when compared to other asserted grounds, as shown in the figure below.



**Figure 6: Grounds found persuasive as a basis on which to institute PGR. (Partial institution/denial, for ease of display, is shown as both institution and a denial)**

<sup>307</sup> *Id.* at 10–11 (internal citations omitted).

The Board has considered challenges under §§ 101, 102, and 103. Of those early challenges, nearly half of challenges under § 101 and 112(a) were successful. In contrast, § 102 and 103 met with some difficulty, in particular 102. In terms of raw numbers, however, 103 was most often raised and decided, and resulted in more overall institutions.

The instituted PGRs underline the continued impact of *Alice* on determinations of subject-matter eligibility under § 101. An instructive example can be found in comparing the prosecution history in *Netsirv* with the Board's decision to institute a PGR on that patent under § 101. In *Netsirv*, the petitioner stated that claim 1 and its dependent claims were rejected under § 101 because the Examiner stated that the claims did not meet the machine-or-transformation test.<sup>308</sup> The petitioner quoted the Examiner's statement that the claims were "not tied to a particular machine or apparatus nor do they transform a particular article into a different state or thing."<sup>309</sup> But the petitioner noted that the rejection was overcome by simply adding "by a computing system" to the claim.<sup>310</sup>

In contrast, they argued before the Board that adding the computing system did not render the subject matter patent-eligible because, among other things, simply using a computer to implement a fundamental economic concept (in this case a bailment scheme) was not sufficient to add "significantly more" to the abstract concept.<sup>311</sup> Lastly, the Board seems to have hinted at the types of computer-implemented patents that would not provide grounds to institute PGR on 101. For example, in the *Leachman* cases, the Board looked to the specification of the patent at issue in determining whether it was directed to an abstract idea.<sup>312</sup> The Board noted that the first three sentences of the "summary" read as follows:

The Applicants recognize the importance of determining relative market value of a sale group or a group of animals offered for sale from a livestock operation. Various

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<sup>308</sup> Petition for Post-Grant Review at 7, *Netsirv, LLC v. Boxbee, Inc.*, No. PGR2015-00009 (Aug. 4, 2015).

<sup>309</sup> *Id.* (internal citations omitted).

<sup>310</sup> *Id.*

<sup>311</sup> *Netsirv v. Boxbee, Inc.*, No. PGR2015-00009, Paper 10, at 8, 2015 WL 10853972, at \*3 (P.T.A.B. Aug. 4, 2015).

<sup>312</sup> *Am. Simmental Ass'n., v. Leachman Cattle of Colo., LLC*, No. PGR2015-00003, Paper 19, at 13, 2015 WL 3880491, at \*7 (P.T.A.B. June 19, 2015); *Am. Simmental Ass'n., v. Leachman Cattle of Colo., LLC*, No. PGR2015-00005, Paper 52, at 16–17, 2016 WL 3268597, at \*13 (P.T.A.B. June 13, 2016).

embodiments of methods and apparatus for determining relative market value of a sale group are provided herein. Exemplary embodiments of the present invention include an online genetic merit scorecard system.<sup>313</sup>

Based on the cited section of the summary, the Board found that the specification supported the petitioner's proposed fundamental concept—noting that until the last sentence of the quoted section, the specification did not mention anything related to an "online genetic scorecard," which the patent owner had argued makes the patent not directed to an abstract idea.<sup>314</sup> Thus, the Board found the "online genetic scorecard" aspect to merely be an "exemplary embodiment" of the patent, rather than the patent itself.<sup>315</sup> The Board may have indicated here that computer-implemented limitations that are more narrowly drawn may survive challenges under § 101. This is further supported by the Board's response to the patent owner's contention that any claim is potentially an abstract idea when over-generalized. There, the Board pointed out that "unambiguous disclosure in the Specification as to the nature of the invention indicates to us that Petitioner has not over-generalized here."<sup>316</sup>

On June 13, 2016, the Board entered the first final decision in a PGR, ruling for the Petitioner on all challenged claims—basing the decision, in part, on § 101.<sup>317</sup> With respect to the first step of the *Alice* analysis, the Board found that "[a]fter consideration of the express language of independent claim 1 . . . the claims appear to be directed largely to applications of mathematical formulas and algorithms in the field of animal valuation, which would support Petitioner's proffered fundamental concept argument."<sup>318</sup> Further, the specification "heavily [supported] Petitioner's proposed fundamental concept."<sup>319</sup> The Board summarized its abstract-idea conclusion thusly:

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<sup>313</sup> *Am. Simmental Ass'n.*, No. PGR2015-00003, Paper 19, at 13–14, 2015 WL 3880491, at \*7.

<sup>314</sup> *Id.* at 14.

<sup>315</sup> *Id.*

<sup>316</sup> *Id.*

<sup>317</sup> *Am. Simmental Ass'n.*, No. PGR2015-00003, Paper 56, at 33, 2016 WL 3268597, at \*19.

<sup>318</sup> *Id.* at 27. The Board noted as well that "[f]or purposes of clarity, we will evaluate both Petitioner and Patent Owner's positions only with respect to independent claim 1, however, a similar analysis is applicable to each of claims 1–20." *Id.*

<sup>319</sup> *Id.* at 29. The Board also took pains to acknowledge Patent Owner's argument that Petitioner was over generalizing the proposed fundamental concept. However, the Board was ultimately satisfied that Petitioner's proposed fundamental concept did not overgeneralize. *See id.*

Given the fundamental concept of “determining an animal’s relative economic value based on its genetic and physical traits,” we are persuaded by Petitioner’s assertion that this concept is a “fundamental economic practice . . . long prevalent in our system of commerce,” or “a fundamentally necessary and decades old principle,” or a “building block of human ingenuity.” Our determination is supported by our finding that the “Description of Related Art” is replete with examples of prior attempts at “determining an animal’s relative economic value based on its genetic and physical traits.” Our determination is supported further by Dr. Spangler’s representation that, among other factors, “valuing an animal based on its physical traits and lineage has been routine for centuries – likely millennia.”<sup>320</sup>

On the second *Alice* prong—whether the claims at issue recite “significantly more”—the Board agreed with Petitioner that “the claims merely recite generic computer hardware that is used in a conventional manner, which has been found in *Alice* and other decisions by our reviewing courts as insufficient to transform an otherwise patent-ineligible abstract idea into patentable subject matter.”<sup>321</sup> The Board continued, stating that it “Specifically . . . agree[d] with, and [was] persuaded by, Petitioner’s assertions that all computer recitations in the challenged claims are recitations to generic computer hardware used in a conventional manner, which are insufficient to impart patentability under *Alice*.”<sup>322</sup>

That petitions have asserted that claims are unpatentable under § 101, and that the Board—in its first final written decision—found claims to be unpatentable under § 101, demonstrates three points. First, *Alice* continues that have a palpable impact on patent practice. This is unsurprising given the noticeable impact *Alice* and its progeny have had on district court litigation and on office actions, as demonstrated by the results of the ABA Post-*Alice* task force study. Second, it demonstrates that parties are willing to assert challenges under § 101 notwithstanding PGR’s estoppel provision.

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(“The unambiguous disclosure in the Specification as to the nature of the invention indicates to us that Petitioner has not over-generalized here.”).

<sup>320</sup> *Id.* (internal citations omitted).

<sup>321</sup> *Id.* at 30.

<sup>322</sup> *Id.*

Third, the Board's decision invalidating challenged claims based, in part, on *Alice* demonstrates *Alice*'s continued impact on final decisions by the Board.

A. *Section 102*

One interesting analysis is that, while 102 grounds are less likely overall to be instituted (4 of 12 to date), petitions *containing* 102 grounds are more likely to be instituted on some grounds. Analyzing challenges that persuaded the Board that the challenged claims were more likely than not anticipated by the claimed reference shows that § 102 challenges themselves were often denied in lieu of other grounds.

This makes logical sense. Most petitions, whether IPR, CBM, or PGR, that have anticipatory prior art likely also have subsumed arguments that the claims were at least obvious in light of that allegedly anticipatory reference. If something is not teaching each and every element, it may well be that they are anticipated. Thus, raising anticipation may actually strengthen one's petition rhetorically, regardless of whether the ground is instituted, as long as 102 is not the sole ground raised.

In raising 102 anticipation grounds, it is important to clarify which references anticipate the asserted patent. In *Midwest*, the non-instituted petition, Petitioner's lack of clarity as to which references anticipated the asserted claims sunk their efforts.<sup>323</sup> As the Board noted at the outset of its analysis, "[i]t is unclear whether Petitioner's position is (1) that each of the four listed references individually anticipates the claims, or (2) that the combination of the four listed references somehow anticipates the claims."<sup>324</sup>

This opening analysis contrasts starkly with one of the Board's first sentences in analyzing the § 102 challenge in *Endodontics*, in which the Board stated that "Petitioner provides a detailed description of where each limitation of claims 12–16 is disclosed in" the claimed reference.<sup>325</sup>

Second, whereas *Midwest* lacked a clear explanation of how a certain reference anticipated the asserted patent, the instituted petitions all provided such detailed explanations. For example, the *Midwest* Petitioner argued that

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<sup>323</sup> See *Midwest Indus. Supply, Inc. v. Soilworks, LLC*, No. PGR2016-00004, Paper 9 at 7–8, 2016 Pat. App. Filings LEXIS 5813, at \*10 (P.T.A.B. May 9, 2016).

<sup>324</sup> *Id.* at 7.

<sup>325</sup> *US Endodontics, LLC v. Gold Standard Instruments, LLC*, No. PGR2015-00019, Paper 17, at 27 (8,929,525 Jan. 29, 2016).

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a certain reference anticipated the asserted patent because the asserted patent describes the use of a certain product with a similar chemical composition to products used in the prior art.<sup>326</sup> However, the Board found the asserted “patent [did] not mandate the use of” the described product “in its claimed invention; instead, this product is only one of several commercial products that can be included ‘[i]n certain embodiments’ of the disclosed invention.”<sup>327</sup> Thus, it is important to clearly and unequivocally indicate which embodiment the claim reads on, and point to how the prior art meets the claim language, rather than elements in particular embodiments that may be questioned as part of the claims.

*B. Section 103*

Unlike § 102 challenges, § 103 challenges have been more successful, in the aggregate, at the institution phase. Nine 103 challenges have been instituted, at least partially, many in cases where 102 or 112 challenges were denied. Of the twelve denied grounds, the Board seems particularly preoccupied with the motivations to combine the references and with particular elements still being absent from either reference—akin to IPR practice and not worth analyzing separately here.

*C. Section 112*

In *Altaire Pharms., Inc. v. Paragon Biotech, Inc.*, the petitioner submitted that claims 1–13 in the ‘623 patent titled “Methods and Composition of Stable Phenylephrine Formulations” were unpatentable under § 112.<sup>328</sup> The petitioner asserted that the claims failed “to particularly point out and distinctly claim the subject matter which the joint inventors regard as the invention.”<sup>329</sup> The petitioner claimed that, when read in context of the prosecution history, the claims were unclear as to the time period required for maintaining chiral purity of a solution related to

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<sup>326</sup> *Midwest Indus. Supply, Inc.*, No. PGR2016-00004, Paper 9, at 10, 2016 Pat. App. Filings LEXIS 5813, at \*13.

<sup>327</sup> *Id.*

<sup>328</sup> Petition for Post-Grant Review at 3, *Altaire Pharm., Inc. v. Paragon Biotech, Inc.*, No. PGR2015-00011 (Nov. 16, 2015).

<sup>329</sup> *Id.* at 66.



claims.<sup>330</sup> The patent owner, in its preliminary response, demurred, asserting the contrary.<sup>331</sup>

In *US Endodontics, LLC v. Gold Standard Instruments, LLC* the petitioner challenged the patent at issue—a method of modifying an instrument for use in root canal therapy—under § 112, arguing that the claims lacked enablement and written description support.<sup>332</sup> The petitioner argued, among other things, that the treatment method discloses a temperature range—between 25 degrees Celsius and 300 degrees Celsius—was too broad to be patentable.<sup>333</sup> With regard to the written description, the petitioner argued, among other things, that although the patent claimed any heat treatments in the disclosed temperature range that produce the desired result, the specification only disclosed one example of such a treatment.<sup>334</sup>

The petitioner in *Inguran, LLC v. Premium Genetics, Ltd.* challenged claims in a patent titled “Multiple Laminar Flow-Based Particle and Cellular Identification” under § 112 arguing that the challenged claims are indefinite and lack enablement.<sup>335</sup> In its petition, the petitioner argued that the claims requiring “plurality of buffer channels which are disposed on either side of said first input channel” was indefinite because, among other things, the term “side” “lack[ed] an antecedent basis, making it impossible for one of ordinary skill in the art to determine what constitutes ‘either side.’”<sup>336</sup> With regard to enablement, the petitioner argued “the claims of the ‘395 patent are directed at an entirely different subject matter than the invention disclosed in the specification, i.e., cell sorting apparatuses and methods that employ physical separation techniques.”<sup>337</sup>

In sum, these examples illustrate well the ways claims can be challenged under § 112. The demonstrate ways in which parties might prefer PGR to other post-issuance regimes, such as *inter partes* review.

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<sup>330</sup> *Id.* at 67.

<sup>331</sup> See Preliminary Response for Patent Owner at 36, *Altaire Pharm., Inc. v. Paragon Biotech, Inc.*, No. PGR2015-00011 (Nov. 16, 2015).

<sup>332</sup> Petition for Post-Grant Review at 31, *US Endodontics, LLC, v. Gold Standard Instruments, LLC*, No. PGR2015-00019 (Aug. 3, 2015).

<sup>333</sup> *Id.* at 34.

<sup>334</sup> *Id.* at 41.

<sup>335</sup> Petition for Post-Grant Review at 2, 5, *Inguran, LLC v. Premium Genetics (UK) LTD.*, No. PGR2015-00017 (Dec. 22, 2015).

<sup>336</sup> *Id.* at 28.

<sup>337</sup> *Id.* at 74.

## VII. TRENDS, ISSUES, AND RECOMMENDATIONS

Better, of course, if images were plain,  
Warnings clearly said, shapes put down quite still  
Within the fingers' reach, or else nowhere;  
But complexities crowd the simplest thing,  
And flaw the surface that they cannot break.<sup>338</sup>

Given a system bound by *stare decisis* and the resulting practical inability of most courts to reverse course or remove procedural constraints at the same rate they add them (given limited appellate review and even more limited reversals), American common law court systems tend inexorably toward complexity and ossification. (This may help explain the preference for new courts, administrative agencies, and litigation schemes without (at least at first) those constraints—a sort of hop-around arms race back to simplicity and cost-efficiency.) Already, the Federal Circuit is looking at myriad aspects of the new *inter partes* review procedure in detail, issuing more than 50 written opinions out of the first 110 or so appeals.<sup>339</sup> While a clear majority of those appeals, even those leading to written opinions, have been affirmed, the appellate court has given much attention to burdens, claim construction, notice and procedure requirements, and other procedural issues sure to increase the complexity of IPR proceedings.

This leaves potential PGR filers and defenders in an interesting position: While there have been *no* written appellate decisions stemming from PGR cases to date, the procedures of PGR are very similar to CBM and somewhat similar to the IPR procedures. Indeed, many of the CBM procedures that have been ruled on are the same statutes that govern PGR procedures. It is thus likely that practitioners will cite to and follow these decisions, while at the same time acknowledging that they are persuasive only; however, few APJs or appellate judges are likely to treat PGR much differently, resulting in a kind of practical precedent for all involved. Thus, those seeking to file PGRs are best counseled to rely on appellate and precedential decisions concerning first CBM and then IPR. Which means very few PGR-specific open questions are likely to be litigated or contested on appeal, as most will follow those same or similar issues arising in IPRs.

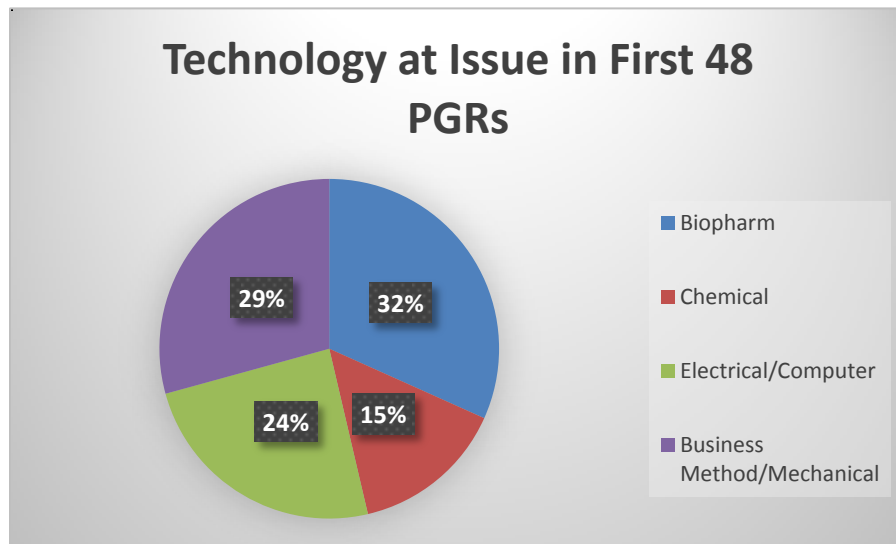
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<sup>338</sup> Kingsley Amis, *Against Romanticism*, in *COLLECTED POEMS: 1944–1979*, 35 (1979).

<sup>339</sup> See David C. Seastrunk, Daniel F. Klodowski & Elliot C. Cook, *Federal Circuit PTAB Appeal Statistics - Sept. 2016*, AMERICA INVENTS ACT BLOG (Jason E. Stach ed.) (Sept. 12, 2016), <http://www.aiablog.com/ptab-stats/federal-circuit-ptab-appeal-statistics-Sept.-2016/>.

### A. *Technology of the Filed PGR Petitions.*

The early petitions challenge patents on a broad range of technologies; however, computer implemented patents are thus far—perhaps surprisingly—one of the most common area of technology. I would have thought most early filers would have been pharmaceutical manufacturers, given generally higher stakes, the high cost of PGR proceedings, and an ability to press 112 issues in PGR. I would have right, but only just barely.



**Figure 7: Technology at issue in the first 48 PGRs.**

Companies and practitioners in all field should take note of the new procedure and, where appropriate, use it accordingly. Indeed, PGR is likely to have an outsize impact *outside* of the computer-implemented technology areas, where the number of patents in a portfolio or area of practice is limited and the art is crowded. In the mechanical and pharmaceutical technology areas, for instance, it will be relatively easy for competitors to identify the relevant blocking patents or portfolios that present problems should they issue. With the ease of tracking a limited number of competitor applications comes the ease and relative low cost of challenging those portfolios early, outside of district court, in a way similar to the European or Asian opposition practice.

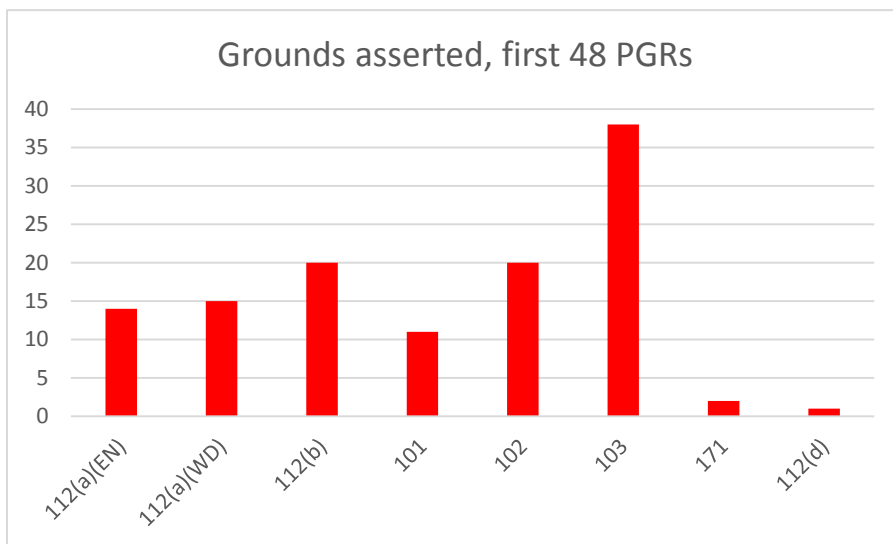
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*B. Grounds raised in Filed PGR petitions.*

Not surprisingly, petitioners bringing PGR challenges have raised grounds under §§ 101 and 112(a) and (b) almost as often as they have §§ 102 and 103, taking advantage of the additional avenues PGR provides for challenging patentability. Interestingly, while 112(b) remains the most common 112 rejection, many recent filers have brought 112 enablement and 112 written description challenges, often paired, at least as often as parties have raised 102 anticipation. Obviousness remains the most popular ground to raise.



**Figure 8: Grounds asserted in the first 48 petitions.**

*C. Recommendation to the USPTO: Lower the Filing Fees for PGRs to Encourage Proactive Use and Meet the Many Goals of the AIA.*

As noted, the base fee for a PGR request is currently \$30,000, with a \$12,000 filing fee, and a post-institution fee of \$18,000.<sup>340</sup> Also, if the USPTO notice of proposed rulemaking issued Oct. 3, 2016 is confirmed as a final rule (though that seems up in the air at the moment), is set to raise to

<sup>340</sup> 37 C.F.R. § 42.15(b) (2016). The fee was set to raise in Oct. 2016, but has been bogged down and as of publication a timetable was uncertain. See *infra* Note 9 (discussing delays and linking to current fee schedule).

\$38,000—a \$16,000 filing fee that is unrecoverable, and a \$22,000 fee that can be refunded if the case is not instituted or settled prior to institution. It may soon thus cost almost in \$40,000 USPTO fees alone to file one PGR petition, much less multiple petitions on multiple claim sets or patents.

For companies faced with more than three hundred thousand patents issuing every year and portfolios with hundreds of patents in them, that's no small change. We appreciate that the fees are currently based on a standard fee-recovery rubric, and make assumptions about the costs of labor—valuable judging time—that will be dedicated to each PGR. But given that more than 325,000 patents issue each year—and that number does not appear to be falling with applications up to almost 600,000 utility applications a year in 2015—companies are faced with a difficult economic choice—is it worth in-house attorney time or paying outside counsel to try and anticipate which of those 325,000 issuing patents (1) are eligible for PGR, (2) possibly read on your company's products, and (3) are likely to be asserted, whether by competitors or by (eventually) some form of resale patent assertion or aggregation entity, and (4) have validity issues best vetted in PGR?

The high cost of filing fees for PGR requests, coupled with the expense of identifying key patents early and getting on file so quickly, may be deterring companies from using our system the way Congress intended. The fees for PGR are significantly higher than the fees for IPR, based on a linear valuation of the “attorney hours” that would go into an IPR versus a PGR, in turn based on length and grounds as proxies for expected work-hours. But the USPTO also has a duty to the public and to Congress to effectuate the AIA statute, both as written and in the spirit of good governance to the public; currently, the economic barriers to filing PGR discourage proactive review and thus encourage costly, wasteful litigation later in the process.<sup>341</sup>

Given that fee-setting authority is within the purview of the USPTO, and that they exercise that fee-setting authority by balancing cost recovery with policy goals, it makes sense for the USPTO to reevaluate its choice to

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<sup>341</sup> It is unclear the extent to which economic barriers to filing PGRs discourage proactive review—presenting a golden opportunity for further study. To date, at least one paper studying IPRs presents a method of studying the extent and effect of the economic barriers on PGR rates. See Brian Love, *Inter Partes Review as a Shield for Technology Purchasers: A Response to Gaia Bernstein's 'The Rise of the End-User in Patent Litigation'*, 56 B.C. L. REV. 1075, 1092–93 (2015) (comparing the rates at which parties were sued with the rates at which they used IPR).

treat IPRs and PGRs as similarly situated in terms of fees.<sup>342</sup> Congress' goals of getting to early and final validity determinations and having estoppel attach is better effected with early PGR proceedings than it is with IPRs, 80% or so of which have, thus far, been brought after parallel litigation has already begun. The USPTO should use its fee-setting authority to rebalance the scales, making PGRs cheaper to file than the associated IPR proceedings. This would encourage early filing and discourage the wait-and-see approach, lowering companies' costs of litigation and encouraging licensing earlier in patent lifecycle. Only by encouraging early, efficient, preemptive review can the PGR system truly flourish as Congress intended.

*D. Recommendation to Companies: Use Post-Grant Review Proactively to End the Threat of Litigation Before It Ever Begins.*

The PGR process has the potential to allow competitors, relatively cheaply and easily, to dispute the patentability of a recently issued asset well before expensive district court litigation is invoked, akin to how European opposition is often used. While difficult to quantify, getting to patentability issues early on a singled patent could save American businesses hundreds of millions of dollars. The difficulty will always be in determining which needles in the vast haystack of the American patent system will pierce the hardest, and draw the most blood. But it seems well worth the long-term investment in proactive deterrence—both for individual companies and for the systems as a whole. There will even be a role in the process for third-party and public interest groups—“do-gooders,” as one practitioner once said disgustedly. The challenge will be in funding and budgeting for such difficult-to-quantify proactive work, something currently foreign to many reactive in-house patent departments. It may require a cultural shift in the bar, akin to the now-widespread adoption of preventative medicine techniques in U.S.-healthcare.

Contrary to generalized, practitioner-driven concerns regarding the estoppel provisions of PGR, the ability to have expertly trained patent administrative law judges review claims under Section 101 and 112 grounds appears potent and preferable in most conceivable situations. It will also be cheaper and, in most cases, avoid the need for any litigation entirely, whichever way it is decided. It offers patent owners the ability to license

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<sup>342</sup> See Setting and Adjusting Patent Fees, 78 Fed. Reg. 4212 (Jan. 18, 2013) (to be codified at 37 C.F.R. pts. 1, 41–42).

patents early for the lifetime of their patents—not simply assert them post-hoc once they are near or after expiry.

Such preemptive, proactive use will allow competitors to monitor one another and police their own technology areas. It also offers a different enforcement model—one based on early, cost-effective review of patentability, followed by widespread licensing of the remaining vetted assets. It will benefit individual companies and the system as a whole and should be adopted widely.

*E. Recommendation to Practitioners: Counsel Clients to Make Proactive Use of a More Efficient System for Judging Patentability under 101, 102, 103, and 112.*

Given all discussed here, it seems that concerns over estoppel, while (as it were) valid, have driven the bar to over-counsel against filing petitions for PGR (and for that matter, IPR and CBM) or simply fail to suggest such proactive measures, more out of risk aversion and a preference for traditional, more comfortable—perhaps more profitable—forms of litigation than for any real threat of estoppel, a threat that ultimately inheres in any validity challenge, regardless of forum.

Forward-looking practitioners concerned with developing long-term relationships with savvy clients bent on maintaining markets—those interested in the best results regardless of short-term pocketbook gain—are apt to already be counselling clients to use PGR proactively where possible and to develop an early warning system on patents set to issue in the future that may present problems. As the bar grapples with how best to encourage proactive filing, it will be fascinating to see which practitioners counsel clients proactively, and which remain reactive and reliant on expensive and often catastrophic big-ticket litigation.

## VIII. CONCLUSION

The IPR procedure has been a godsend for companies faced with paying hundreds of millions of dollars annually in licensing fees to NPEs for patents whose validity could not previously be efficiently questioned. While parties still settle and litigation persists, and more than 300,000 patents are issuing each year, widespread anecdotal evidence demonstrates nuisance settlement values have dropped, in some cases, from seven- and six-figure numbers to five-figure ones. (To be sure, let's keep that in context: It is a testament to where we were in U.S. patent law prior to the

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AIA that the prospect of hundreds of companies paying tens of thousands of dollars plus costs to settle questionable cases is an improvement.)

Yet litigations remain omnipresent, parties still license in nuisance cases for hundreds of thousands of dollars each year, and the financial barriers to challenge, somewhat while lower, still guarantee financial leverage—just less of it.

Should the ongoing NPE problem, and the problem of resold, monetized, overbroad patents truly diminish, or should the problems of hyper-localized venue and unbalanced contingency-counsel NPE litigation (and hidden corporate ownership/assignment) somehow evaporate, the United States could then move toward a more balanced, effective, and equitable regime—one where operating companies monitor each other's dockets, use cost-effective PGRs to answer freedom-to-operate questions and resolve disputes early, and then adopt licensing models reflecting competitor-to-competitor disputes and settled validity. That, in turn, would help reduce the volume of hundreds of thousands of issued U.S. patent assets on the secondary market while increasing the quality and certainty of those with merit, ensuring those patents will be widely licensed and respected.

Lowering the cost and increasing proactive use of PGR proceedings in the United States would lead to better understanding and predictability in the patent landscape in particular technology sectors. Only then can we move beyond wasteful legal spend on reacting to burdensome and predatory litigation, and instead focus as a bar on incentivizing innovation.



APPENDIX A<sup>343</sup>

Petitioner	Number	Filed	Ended	Raised	Instituted	Final
<b>L'Oréal USA, Inc.</b>	PGR201 7-00011	Jan. 31, 2017		112(a)(WD), 112(a)(EN), 112(b)		
<b>L'Oréal USA, Inc.</b>	PGR201 7-00012	Jan. 31, 2017		102 103		
<b>AVX Corp.</b>	PGR201 7-00010	Jan. 26, 2017		102		
<b>Wombat Security Techs., Inc.</b>	PGR201 7-00009	Jan. 3, 2017		101, 103, 112(a)(EN), 112(a)(WD)		
<b>Grunenthal GmbH</b>	PGR201 7-00008	Dec. 14, 2016		102, 103 112(a)(WD), 112(a)(EN), 112(b)		
<b>KEY-BAR, LLC</b>	PGR201 7-00006	Nov. 18, 2016		103		
<b>EMRG, LLC</b>	PGR201 7-00004	Nov. 17, 2016		171, 112(a)(EN), 112(b), 103		
<b>Securus Techs., Inc.</b>	PGR201 7-00005	Nov. 17, 2016		112(b), 112(d), 103		
<b>Bestway USA, Inc.</b>	PGR201 7-00003	Nov. 8, 2016		103		
<b>Minerva Surg., Inc.</b>	PGR201 7-00002	Nov. 2, 2016		112(a)(WD), 112(a)(EN)		
<b>Yuneeq Int'l Co. Ltd. (Hong Kong)</b>	PGR201 7-00001	Oct. 22, 2016		102, 103, 112(b)		
<b>Securus Techs., Inc.</b>	PGR201 6-00044	Sept. 29, 2016		103, 112(a)(WD), 112(b), 101		

<sup>343</sup>Data retrieved from DocketNavigator® on Feb. 18, 2017, with thanks; shaded boxes are PGRs of design patents. Bolded grounds were denied.

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<b>Fox Factory Holding Corp.</b>	PGR201 6-00043	Sept. 24, 2016		112(a)(WD), 112(a)(EN), 112(b), 103		
<b>Corvus Pharms., Inc.</b>	PGR201 6-00042	Sept. 12, 2016		112(a)(WD), 102, 103		
<b>David's Bridal, Inc.</b>	PGR201 6-00041	Sept. 8, 2016		102, 112(b), 103		
<b>Ultratec, Inc.</b>	PGR201 6-00037	Aug. 24, 2016		101, 103		
<b>Telebrands Corp.</b>	PGR201 6-00031	Aug. 12, 2016		112(a)(WD), 112(b), 103		
<b>Telebrands Corp.</b>	PGR201 6-00030	Aug. 8, 2016		112(b), 103		
<b>Amneal Pharms. LLC</b>	PGR201 6-00028	July 12, 2016	Oct. 25, 2016	N/A (joinder)	N/A (joinder case denied)	
<b>Telebrands Corp.</b>	PGR201 6-00026	June 15, 2016	Nov. 23, 2016	<b>112(b), 103</b>	none	
<b>Ossia, Inc.</b>	PGR201 6-00023	May 31, 2016	Nov. 29, 2016	<b>103</b>	none	
<b>Ossia, Inc.</b>	PGR201 6-00024	May 31, 2016		112(b)	112(b)	
<b>Galaxia Elecs. Co., Ltd.</b>	PGR201 6-00021	May 18, 2016	Nov. 2, 2016	<b>171, Inv.</b>	none	
<b>David Adebimpe</b>	PGR201 6-00020	May 17, 2016	July 25, 2016	<b>103</b>	none	
<b>B R A H M S GmbH</b>	PGR201 6-00018	Apr. 27, 2016		112 (a)(WD), 112 (a)(EN), 102, <b>103</b> , 112(b)	112(a) (WD), §112(a) (EN), 102(a)(1) 112(b)	
<b>MacDermid, Inc.</b>	PGR201 6-00017	Apr. 19, 2016	Oct. 19, 2016	<b>103</b>	none	

<b>Midwest Industrial Supply Inc.</b>	PGR201 6-00014	Mar. 30, 2016	Sept. 7, 2016	<b>102, 103, 112(b)</b>	none	
<b>Arkema Inc.</b>	PGR201 6-00011	Feb. 23, 2016		103	103	
<b>Arkema Inc.</b>	PGR201 6-00012	Feb. 22, 2016		102, 103, <b>112(a)(EN),</b> 112(b)	102, 103, 112(a) (EN) ( <i>par</i> ), 112(b)	
<b>BMC Software, Inc.</b>	PGR201 6-00013	Feb. 19, 2016		<b>101, 103</b>	103	
<b>Mylan Pharms. Inc.</b>	PGR201 6-00010	Feb. 16, 2016	Aug. 15, 2016	<b>102, 103, 112(a) (WD)</b>	none	
<b>Dr. Reddy's Labs.</b>	PGR201 6-00007	Feb. 5, 2016	Aug. 17, 2016	<b>103</b>	none	
<b>Dr. Reddy's Labs.</b>	PGR201 6-00008	Feb. 5, 2016	Aug. 17, 2016	<b>102, 112(a) (WD)</b>	none	
<b>Midwest Indus. Supply Inc.</b>	PGR201 6-00004	Dec. 2, 2015	May 9, 2016	<b>102, 103, 112(a) (EN)</b>	none	
<b>PeroxyChem LLC</b>	PGR201 6-00002	Nov. 19, 2015	Oct. 24, 2016	112(a) (WD), <b>112(a) (EN),</b> <b>101, 103</b>	112(a) (WD)	Set.
<b>Front Row Techs., LLC</b>	PGR201 5-00023	Aug. 4, 2015	Feb. 22, 2016	<b>101</b>	none	
<b>CORE Survival, Inc.</b>	PGR201 5-00022	Aug. 3, 2015	June 24, 2016	<b>103</b>	103 ( <i>par</i> )	Set.
<b>US Endodontics, LLC</b>	PGR201 5-00019	Aug. 3, 2015	Dec. 28, 2016	112(a)(EN), 112(a)(WD), 102, <b>103</b>	112(a) (EN), 112(a) (WD), 102, 103 ( <i>par</i> )	112(a), 102

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<b>Telebrands Corp.</b>	PGR201 5-00018	June 22, 2015	Dec. 30, 2016	<b>112(a)</b> <b>(WD),</b> <b>112(a) (EN),</b> 112(b), 103,	112(b), 103	112(b), 103
<b>Inguran, LLC d/b/a Sexing Techs.</b>	PGR201 5-00017	June 15, 2015	Dec. 20, 2016	<b>112(a)(EN),</b> 102, 103, <b>112(b)</b>	102, 103	102, 103
<b>Global Tel*Link Corp.</b>	PGR201 5-00013	May 19, 2015	Dec. 7, 2016	<b>101,</b> 103	103	103 (par)
<b>Global Tel*Link Corp.</b>	PGR201 5-00014	May 19, 2015	Nov. 29, 2016	<b>101, 102,</b> 103	103	103 (par)
<b>Altaire Pharms., Inc.</b>	PGR201 5-00011	May 11, 2015	Nov. 14, 2016	<b>102,</b> 103, <b>112(b)</b>	103	none
<b>Netsirv, LLC</b>	PGR201 5-00009	Mar. 17, 2015	Aug. 2, 2016	101, <b>102</b>	101	101
<b>Am. Simmental Ass'n</b>	PGR201 5-00005	Jan. 30, 2015	June 13, 2016	101, <b>102,</b> 103	101, 103	101, 103
<b>Am. Simmental Ass'n</b>	PGR201 5-00003	Nov. 21, 2014	June 13, 2016	101, <b>102,</b> 103	101, 103	101, 103
<b>Accord Healthcare, Inc.</b>	PGR201 4-00010	Sept. 2, 2014	Nov. 24, 2014	112(a) (EN), 112(a)(WD), 112(b)	Set.	Set.
<b>LaRose Indus., LLC</b>	PGR201 4-00008	Aug. 5, 2014	Jan. 5, 2015	102, 103, 112(a)(EN), 112(a)(WD), 112(b)	Set.	Set.