Miscellaneous Docket No. 25-___

United States Court of Appeals

for the Federal Circuit

IN RE INARI AGRICULTURE, INC.

Petitioner

On Petition for Writ of Mandamus to the
United States Patent and Trademark Office in No. PGR2024-00019

PETITION FOR WRIT OF MANDAMUS

Scott A. McKeown
WOLF GREENFIELD & SACKS, P.C.
601 Massachusetts Avenue, NW
Washington, DC 20001
Telephone: (202) 389-6025
smckeown@wolfgreenfield.com

Charles T. Steenburg
WOLF GREENFIELD & SACKS, P.C.
600 Atlantic Avenue
Boston, MA 02210
Telephone: (617) 646-8000
csteenburg@wolfgreenfield.com

Counsel for Petitioner

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

CERTIFICATE OF INTEREST

Case Number _____

Short Case Caption *In re Inari Agriculture, Inc.*

Filing Party/Entity Inari Agriculture, Inc.

Instructions:

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I certify the following information and any attached sheets are accurate and complete to the best of my knowledge.

Date: September 4, 2025

Signature: /s/Scott A. McKeown

Name: Scott A. McKeown

1. Represented Entities. Fed. Cir. R. 47.4(a)(1).	**2. Real Party in Interest.** Fed. Cir. R. 47.4(a)(2).	**3. Parent Corporations and Stockholders.** Fed. Cir. R. 47.4(a)(3).
Provide the full names of all entities represented by undersigned counsel in this case.	Provide the full names of all real parties in interest for the entities. Do not list the real parties if they are the same as the entities. ☒None/Not Applicable	Provide the full names of all parent corporations for the entities and all publicly held companies that own 10% or more stock in the entities. ☒None/Not Applicable
Inari Agriculture, Inc.		

☐ Additional pages attached

4. Legal Representatives. List all law firms, partners, and associates that (a) appeared for the entities in the originating court or agency or (b) are expected to appear in this court for the entities. Do not include those who have already entered an appearance in this court. Fed. Cir. R. 47.4(a)(4).

☐ None/Not Applicable ☐ Additional pages attached

Wolf, Greenfield & Sacks, P.C.	Thomas Foley (no longer with the firm)	
Oona Johnstone		
Zhiyun Ge		

5. Related Cases. Other than the originating case(s) for this case, are there related or prior cases that meet the criteria under Fed. Cir. R. 47.5(a)?

☐ Yes (file separate notice; see below) ☐ No ☒ N/A

If yes, concurrently file a separate Notice of Related Case Information that complies with Fed. Cir. R. 47.5(b). **Please do not duplicate information.** This separate Notice must only be filed with the first Certificate of Interest or, subsequently, if information changes during the pendency of the appeal. Fed. Cir. R. 47.5(b).

6. Organizational Victims and Bankruptcy Cases. Provide any information required under Fed. R. App. P. 26.1(b) (organizational victims in criminal cases) and 26.1(c) (bankruptcy case debtors and trustees). Fed. Cir. R. 47.4(a)(6).

☒ None/Not Applicable ☐ Additional pages attached

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STATEMENT OF RELATED CASE

No appeal in or from the proceeding in the lower court has previously been before this Court or any other appellate court.

I. INTRODUCTION

The Board's refusal to institute Inari's requested post-grant review (PGR) exemplifies multiple interrelated shenanigans that violated Inari's Constitutional due process rights and the Constitution's separation of powers. The Office cannot insulate such shenanigans from judicial review.

First, the Board denied Inari's petition because Inari's obviousness analysis did not include seed deposit testing, which the agency does not require of applicants pursuing plant utility patents in the first instance. The Office cannot create a new, heightened patentability standard for post-grant proceedings to replace the patentability standard used when awarding patents initially. Such a new standard arbitrarily offloads requirements to the public, post-grant, that the agency itself never applied pre-grant. In doing so, the agency subjects the public to patent infringement liability—flouting Congressional design. This is a real-world threat, as the patent owner's (PO's) own statements and actions confirm. *See infra* § IV.F. AIA trial proceedings are intended to avoid litigation—not cause it. Yet the Board's denial now forces infringement liability on the public.

Further, Inari and the public rely on the patentability statutes applied pre-issuance for assessing errors in the original patentability determination. Congress has mandated that the same patentability statutes be applied post-grant, and under the same evidentiary standards. Inari's reliance was justified given that AIA trial

proceedings involve ***reconsidering*** whether existing patent claims are patentable based on the same patentability statutes. Yet the Board denied Inari's petition by creating and applying an impermissible presumption of patentability and holding Inari to a higher standard than the Office applies when granting plant utility patents in the first instance. Simply put, the Board unfairly and arbitrarily moved the statutory goalposts.

II. JURISDICTION

28 U.S.C. § 1651 confers jurisdiction because judicial review of decisions denying institution of AIA trial proceedings "is available in extraordinary circumstances by petition for mandamus." *Mylan Lab'ys Ltd. v. Janssen Pharmaceutica, N.V.*, 989 F.3d 1375, 1379 (Fed. Cir. 2021); *see also In re Palo Alto Networks, Inc.*, 44 F.4th 1369, 1374 (Fed. Cir. 2022) (reviewing constitutional claim concerning institution denial upon petition for a writ of mandamus).

In particular, "shenanigans" are reviewable to the extent "contrary to constitutional right" or "arbitrary [and] capricious." *Cuozzo Speed Techs. v. Com. for Intell. Prop.*, 579 U.S. 261, 275 (2016); *Realtek Semiconductor Corp. v. Int'l Trade Comm'n*, 131 F.4th 1309, 1311 (Fed. Cir. 2025) (quoting *Cuozzo*).

III. RELIEF SOUGHT

The Court should vacate the Board's denial of Inari's PGR request and remand while instructing the Board to assess Inari's request subject to the Office procedures

and patentability standards governing examination of plant utility claims in the first instance, on which Inari relied in preparing its petition. Aside from protecting Inari's reliance interests, the requested relief is also necessary to correct the capricious and indeed unconstitutional condition the Board imposed in faulting Inari for not having tested the deposited seed. It is also needed to prevent the Executive Branch from encroaching on Congress's legislative power and violating Inari's corresponding liberty interests.

IV. STATEMENT OF FACTS

Inari was formed in 2016 to develop pioneering technology to selectively edit plant genes to increase crop yields while decreasing inputs such as water and fertilizer. Inari partners with independent seed companies to develop improved seeds using Inari's technology. Inari respects valid patent rights and has pioneering patents of its own. Inari also uses AIA trial proceedings to challenge claims Inari believes to be unpatentable. To that end, Inari requested post-grant review of U.S. Patent No. 11,659,803 ("the '803 Patent").[1]

[1] Inari also requested post-grant reviews of U.S. Patent Nos. 11,666,020 (PGR2024-00020); 11,696,545 (PGR2024-00023); and 11,707,033 (PGR2024-00025). All four patents share nearly identical applications and have nearly identical claims aside from concerning purportedly different varieties of corn. The Board denied these other three requests for the same reasons as the instant petition: faulting Inari for not sequencing the deposited seed even though all claims describe the deposits as merely "representative" and none require any specific genetic sequence.

A. The ’803 Patent Claims a New Corn Variety and Describes It Exclusively Based on the Variety’s Physical Traits—Not Its Genotype

The ’803 Patent concerns a purportedly new variety of corn (maize). The patent designates this variety as “1PFLQ21” and discloses certain properties concerning 1PFLQ21’s phenotype, such as “height,” “silk color,” “husk color,” “anther color,” “ear length,” and “ear weight.” Appx00053-00054, 38:10-39:28 (“Table 1”).[2]

The ’803 Patent does not provide any genetic sequence listings or other information regarding 1PFLQ21’s genotype. The specification lacks any such data despite referring generically to “genetic analysis” when describing how 1PFLQ21 was developed by crossing “inbred line PH1V5T and inbred line PH2F7K.” Appx00053, 37:60-38:3.[3]

Independent claim 1 recites “[a] seed, plant, plant part, or plant cell of inbred maize variety 1PFLQ21, representative seed of the variety having been deposited under NCMA accession number 202212046.” Appx00054, 39:31-33. The other

[2] The fields are drawn from a U.S. Department of Agriculture (USDA) form for Plant Variety Protection (PVP) certificates. Appx00079; Appx00183-00184, ¶47. These characteristics facilitate USDA determination whether new plant varieties are distinctive for purposes of the Plant Variety Protection Act—not whether they comply with the requirements of the Patent Act.

[3] The actual breeding techniques disclosed (e.g., “producing a doubled haploid”) were well known to POSAs. Appx00078; Appx00180-00181, ¶42.

independent claims likewise describe the deposited seed as merely "representative." *Id*., 40:1-18, 40:45-56. PO itself characterizes the deposited seed as merely a non-limiting "exemplary embodiment." Appx00389.

B. Inari Challenged the '803 Patent Claims Based on Prior Art Disclosing the Claimed Variety's Parent and Reporting Phenotypic Properties Closely Paralleling Those the '803 Patent Reports For the Claimed Plant

Inari requested PGR and explained that the '803 Patent was not inventive. Inari stressed in particular that the claimed variety's PH1V5T parent:

(1) had been previously patented by PO in indisputable prior art ("Chifflet," Appx00291-00312); and

(2) had been previously used by PO to breed dozens of older child varieties prior to creating the particular strain covered by the '803 Patent.

As with the parent variety, thirty of these older child varieties were disclosed in indisputable prior art references. Appx00085-00086.

Inari requested PGR on the ground that the Challenged Claims are unpatentable under §103 in view of Chifflet and PO's corresponding Plant Variety Protection Act Certificate disclosing the same parental variety. Appx00106-00117. Inari presented evidence that the disclosed properties of the claimed variety closely track those disclosed in the Chifflet parent, and further that nothing in the '803 Patent suggests any variation POSAs would have viewed as surprising or unexpected. Appx00107; Appx00223, ¶99.

In particular, Inari presented evidence that "the claimed plant does not appear to differ significantly from the prior art plants as measured by numerous characteristics." Appx00098-00099 (citing *Ex parte C*, 27 U.S.P.Q.2d 1492, 1496 (BPAI 1992); *see also* Appx00010. Inari's comparative analysis indeed addressed ***all*** properties disclosed in the '803 Patent. *Id.* It mirrored the Board's analysis in *Ex parte C*—a case PO itself had previously cited to the Supreme Court as proof § 103 had teeth as applied to plant utility patent claims. Appx00072; Appx00326-00327; Appx00333.

Inari's PGR request also challenged the '803 Patent as lacking specific utility under § 101 because it never identified how the claimed corn variety improved upon preexisting varieties. Appx00130-00135. Inari highlighted how the specification's "Industrial Applicability" section was essentially identical to that in the Chifflet patent (disclosing the claimed variety's parent) along with additional prior art. Appx00132. Inari also stressed the lack of any statement in the specification identifying any benefits of the claimed plant over known varieties. Appx00136-00138.

C. Patent Owner's Preliminary Response Faulted Inari For Not Sequencing the '803 Patent's Seed Deposit

PO's preliminary patent owner response did not dispute the completeness of Inari's comparative analysis concerning the properties disclosed in the '803 Patent. *See* Appx00387 (referencing "Petitioner's phenotypic comparisons based on the respective Tables in the '803 patent and the prior art"). Nor did PO dispute that the disclosed properties fell "well within the mainstream of [prior art] phenotypes." Appx00099; Appx00196-00204; Appx00535.

PO instead asserted that the '803 Patent discloses only a "***partial*** list" of relevant properties (Appx00392, Appx00400) and ***omits*** multiple purportedly "important traits" (Appx00387); see also Appx00489, ¶129.[4]

PO nevertheless maintained that it was Inari's burden as part of any obviousness challenge to fill in these purported gaps by obtaining and studying seed that PO had deposited in connection with the '803 Patent presumably so that "important traits" nowhere explained in the patent document, let alone claimed, might be considered. Appx00387 ("Inari conducted ***no comparative*** analysis of the seed deposited as an exemplar of the claimed invention….The set of traits in Table 1 are just some of the traits possessed by variety 1PFLQ21....") (emphasis original); *see also* Appx00350 ("Petitioner did not grow up a seed of the claimed invention

[4] Emphasis added unless indicated.

side by side with its asserted prior art under the same growing conditions in order to conduct a true phenotypic analysis.").

In addition to faulting Inari's "phenotypic analysis," PO stressed the claimed variety's "unique genome" and reasoned that Inari's "obviousness analysis necessarily fail[ed]" because it did not address the variety's "unique genetic composition." Appx00389. PO maintained specifically that Inari had to "compar[e] 1PFLQ21's genome to those of the asserted prior art" to assess "the differences between them" and "whether it was even possible" for the prior art varieties to start a § 103 analysis. Appx00392. That is, while the PTO does not perform such assessments—and as such, the initial patentability determination could not have considered such prior to awarding the patent—PO maintained that there was a heightened duty following issuance. That is, an effective presumption of patentability.

D. Inari's Reply and POs Sur-Reply Crystallized the Dispute Regarding Patent Owner's Deposit

Inari's reply highlighted how PO's POPR urged "special rules for plant utility obviousness determinations" (Appx00532) and wrongly faulted Inari for not sequencing PO's deposit (Appx00535). Inari stressed PO's failure to "cite any authority treating deposits themselves as relevant for § 103 (as opposed to § 112)." Appx00537 ("PO urges yet another special rule for plant utility patents in derogation

of the public interest."). Inari likewise stressed that the Board itself does not consider deposits when assessing whether plant utility claims satisfy § 103.[5]

PO's sur-reply never cited any authority treating deposits as relevant for § 103. PO likewise silently conceded that the Board does not consider deposits when assessing obviousness.[6]

PO nevertheless doubled down on the deposit issue and asserted that Inari could not "blindfold itself to the deposit to excuse itself from establishing obviousness." Appx00550; *see also* Appx00548 (accusing Inari of "ignor[ing]" what could be determined based on "the deposited seed").

[5] In particular, Inari refuted PO's attempt to distinguish the Board's *Ex parte C* decision and in particular PO's false suggestion that no deposit had been "available" in *Ex parte C*. Appx00376; Appx00393. As Inari explained, the Board had maintained the obviousness rejection of the applicant's plant utility claims despite the applicant's explicit offer to deposit relevant seed. Appx00538 (citing *Ex parte C*, 27 U.S.P.Q.2d at 1494). While such deposit was relevant for § 112, the Board maintained the obviousness finding because the ***face of the specification*** never suggested any material differences between the claimed invention and the prior art. 27 U.S.P.Q.2d at 1497. Without an "explanation" in the "specification" or a "declaration," the Board declined to credit "the dissimilarities argued by appellant" over "the similarities proffered by the references." *Id*. And as Inari further observed, the Board in *Ex parte C* certainly did not "remand for the examiner to grow the claimed plant next to the prior art varieties." Appx00538.

[6] In particular, PO's sur-reply never disputed that seed deposits had been available to the Board in *Ex parte C*—notwithstanding PO's false assertion in its POPR.

E. The Board Denied Institution and Faulted Inari For Not Sequencing the Deposited Seed—Notwithstanding That the Office Never Considered Sequence Data Prior to Patent Issuance and PO Admits That the Deposited Seed's Genome Did Not Limit the Claims

Adopting PO's flawed logic, the Board denied institution while emphasizing PO's seed deposit of the claimed plant and faulting Inari for not having analyzed the plant's "genotype." Appx00014 (stressing "Petitioner's lack of evidence in the prior art regarding 1PFLQ21's genotype"). The Board reasoned that "[b]y depositing the seeds" PO had made such "genetic sequence…available." Appx00013.

The Board later reiterated the claimed seed's purported "unique genotype" and faulted PO for not addressing how POSAs would have obtained it (Appx00016)—notwithstanding that by PO's own admission the deposited seed was merely an "exemplary embodiment" (Appx00389). The claims indeed describe the deposit as just "representative." Appx00054, 39:31-33; 40:1-18; 40:45-56.

The Board never addressed PO's admission that the deposited seed was merely "exemplary"—even though Inari had highlighted the concession (Appx00389; Appx00537). Nor did the Board otherwise explain how 1PFLQ21's genotype could be relevant—let alone obligatory for Inari to address in its petition—when it plainly does not limit the claims, nor was it considered to find them

patentable prior to issuance.[7]

F. Inari's Director Review Request Highlighted the Improper Heightened Burden Demanded by the Board and How It Would Have Unfairly Forced Inari to Risk Potential Liability for Patent Infringement

Inari requested Director Review and explained how the Board's denial of institution had wrongly "pronounced a heightened new standard of assessing the unpatentability of plant utility claims post-grant that the agency does not apply pre-grant," thereby "creat[ing] an impermissible ***presumption of patentability*** in IPRs and PGRs for plant utility claims." Appx00556 (emphasis original). Inari explained why sequencing deposited seed "cannot be required post-grant when the agency assesses no such [sequence/genomic] data in its pre-grant patentability determination." Appx00558; *see also* Appx00562-00563 ("Under the Board's decision, potential challengers must analyze deposited seed to raise §103 challenges even though examiners need not analyze such deposits when making §103 rejections."). Inari likewise reiterated that the challenged claims did not "require any genetic sequence—much less that associated with PO's deposited seed." Appx00562.

[7] As for Inari's emphasis that "requiring an analysis of the claimed variety's genome" would be impermissible given the "flexibility" for obviousness analysis the Supreme Court mandated in *KSR*, the Board reasoned that *KSR* "does not permit obviousness challenges that avoid addressing the claim elements." Appx00014, n.6. Yet the "claimed variety's genome" plainly does ***not*** constitute a claim element.

Inari further explained how the Board had wrongly held Inari "to a proof burden far beyond that required of an examiner to determine that plant utility claims are unpatentable." Appx00563-00564 ("[T]he Board wrongly faulted Petitioner's ***§103*** analysis for not having analyzed seed PO had deposited for purposes of satisfying ***§112***.") (emphasis original). In faulting Inari's PGR request for not having analyzed PO's deposited seed, the Board wrongly announced a new patentability standard and de facto presumption applicable only to issued plant utility claims. Appx00565.

Inari likewise stressed how analyzing deposited seed to overcome this presumption of patentability "would wrongly subject potential challengers to the risk of patent infringement merely in seeking to overcome the Board's heightened new standard." Appx00556. Inari explained how PO is currently suing Inari for doing *exactly* what the Board concluded is required here. Appx00557 (emphasis original) (citing *Corteva Agriscience LLC. v. Inari Agric., Inc*., C.A. No. 23-1059-JFM (D. Del.), Second Am. Complaint (Oct. 15, 2024, Dkt. No. 158)). In particular, "PO maintains that Petitioner infringes plant utility patents merely by ***testing*** related deposited seed." Appx00569-00570 (emphasis original) (citing Second Amended Complaint ¶¶195, 234, 269, 305, 341). "PO even contends that Petitioner induces infringement just by ***ordering*** seed. Appx00570 (emphasis original) (citing Second Amended Complaint ¶¶218-228).

Inari further explained how the district court has allowed the case to proceed on the theory that despite the "availability" of deposits after patent issuance, the public is not entitled "to exploit them in any way." Appx00557 (quoting *Corteva Agriscience LLC v. Inari Agric., Inc*., 743 F. Supp. 3d 603, 619 (D. Del. 2024). This is despite agency guidance to the contrary that "all restrictions" on the "availability to the public of the deposited material" must be "irrevocably removed" once a patent grants. 37 C.F.R. § 1.808.

The then-Acting Director denied Inari's request for Director Review without comment on January 10, 2025. Appx00573-00575.

G. Recent Developments Further Confirmed the Threat of Liability for Patent Infringement if Inari Sequenced the Deposited Seed as the Board Demanded

With no other avenue for relief, on March 13, 2025, Inari sent a letter to the Office pursuant to § 1.808 seeking certification whether the seed deposit PO had made in a separate patent had "been stated to have been made under conditions which make it available to the public as of the issue date of the patent grant." Appx00576 (quoting § 1.808(c)). In particular, Inari sought certification that the regulation's "clear requirement of public accessibility supersedes any ostensible language to the contrary" in material transfer agreements associated with deposits. *Id.* Such certification was critical given PO's currently pending litigation against Inari. The threat of infringement liability under PO's theory creates a chilling effect

that undermines § 112's quid pro quo as applied to plant utility patents and wrongly insulates such claims from review—particularly under the Board's rationale in denying Inari's PGR request. *See* Appx00579 (explaining that § 1.808(c)'s "certification mechanism polices § 112's quid pro quo as applied to plant utility claims").

The Office has never responded to Inari's letter.

Most recently, on August 6, 2025, PO amplified its litigation-related threats in a separate IPR concerning a plant utility patent for which PO failed to make any deposit at all. In that case, Inari had cited PO's argument in the instant PGR that sequencing the deposited seed was necessary for any obviousness challenge. Appx00615. In response, PO reiterated this position while expressly leaving open the possibility of suing Inari (again) should it actually sequence deposited seed. Appx00648, n.14 ("An acknowledgement that Inari could have tested is a ***far cry from providing a license to test or a statement that no patent liability would result***.")

V. REASONS FOR ISSUING THE WRIT

Mandamus relief is warranted because (1) Inari's right to issuance of the writ is "clear and indisputable," (2) Inari has no other adequate means of obtaining the relief desired; and (3) the writ is appropriate under the circumstances. *Cheney v. U.S. Dist. Court for D.C.*, 542 U.S. 367, 380-81 (2004). The Board's decision refusing to

institute Inari's requested post-grant review exemplifies multiple "shenanigans" that violated Inari's Constitutional due process rights and Inari's liberty interests protected by the Constitution's separation of powers. *Cuozzo*, 579 U.S. at 275. The Office cannot insulate such shenanigans from judicial review. *Id*.; *see also Woodward v. United States*, 871 F.2d 1068, 1072 (Fed. Cir. 1989) ("While the statute and cited authorities indicate that the Secretary's discretion is generally unfettered, employment actions claimed to be based on constitutionally infirm grounds are nevertheless subject to judicial review.").

A. Inari Has a Clear and Indisputable Right to Relief

Inari has a clear and indisputable legal right to have the Board review its PGR petition pursuant to the patentability statutes as written, and without violating Inari's due process rights or the separation of powers amidst the Board's review. The AIA established IPRs and PGRs to empower petitioners to ask the Board to "***reconsider*** whether existing patents satisfy the novelty and nonobviousness requirements for inventions" under 35 U.S.C. §§ 102-103. *United States v. Arthrex, Inc*., 594 U.S. 1, 8 (2021). Congress created these AIA trial proceedings as "quick and cost effective ***alternatives*** to litigation." H.R. Rep. No. 112–98, pt. 1, at 48 (2011); *see also* 157 Cong. Rec. S952 (daily ed. Feb. 28, 2011) (statement of Sen. Grassley) ("These new procedures would also provide faster, less costly, alternatives to civil litigation."); Changes to Implement Inter Partes Review Proceedings, Post-Grant Review

Proceedings, and Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 48680 (Aug. 14, 2012) ("The USPTO is engaged in a transparent process to create a timely, cost-effective alternative to litigation.").

"The primary distinction" between AIA trial proceedings versus "the initial grant of a patent" is simply that IPRs and PGRs come "*after* the patent has issued." *Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 584 U.S. 325, 336 (2018) (emphasis original). To that end, while a third-party requester takes the place of an examiner, the third-party requester is empowered to demonstrate unpatentability pursuant to the exact "same statutory requirements" that apply during prosecution. *Id*. The requester bears the burden of establishing unpatentability in a PGR just like an examiner bears the burden of establishing unpatentability prior to patent issuance. 35 U.S.C. § 324(a); *see also In re Glaug*, 283 F.3d 1335, 1338 (Fed. Cir. 2002). And the same "preponderance of the evidence" burden of proof standard that applies to examiners during prosecution applies to petitioners during PGR. 35 U.S.C. § 326(e); *see also In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). In neither case does an intervening step or presumption (with a higher burden of proof, as applicable in litigation) stack the deck in favor of the patent applicant or owner. *Cf*. 35 U.S.C. § 282(a) (patents are "presumed valid" in litigation).

Notwithstanding this black-letter law, the Board rejected Inari's PGR request based on an impermissible heightened standard that violated Inari's Constitutional

due process rights and also the Constitution's separation of powers for two separate and independent reasons.

First, the Board faulted Inari for not testing and sequencing the seed that the patent owner had deposited even though such sequencing would have subjected Inari to potential liability for patent infringement under PO's own theory in currently pending litigation. The Board's logic subjects Inari and the American public to a perverse Catch-22 that violated Inari's due process rights as well as Inari's liberty interests secured by the Constitution's separation of powers. Congress created AIA trial proceedings as a cost-effective ***alternative*** to patent litigation—not a means to promote it. Inari has an indisputable right to have the Board consider its PGR request without conditioning such review on unconstitutional conditions that subject Inari to the risk of monetary damages for alleged patent infringement.

Second, the Board failed to follow the Office's own established procedures and instead faulted Inari for omitting analysis indisputably not required of the Office when examining such claims in the first instance to assess whether they satisfy § 102 and § 103. The Board's failure violated Inari's due process rights because Inari relied on the Office's established procedures and the public notice function of patents when formulating its obviousness challenge. Inari's challenge paralleled the Board's analysis in *Ex parte C*, in which the Board affirmed an obviousness rejection ***despite*** the applicant's offer to make a seed deposit available. The Board's rationale in

rejecting Inari's petition likewise violated the Constitution's separation of powers by rewriting the Patent Act to apply a presumption of validity to the patentability statutes even though Congress legislated that the same "preponderance of the evidence" standard applicable to patent examination also applies when the Board is reconsidering whether issued claims comply with § 102 and § 103.

1. The Board's Rationale in Denying Inari's Petition Violated Inari's Constitutional Due Process Rights

a. The Board's Rationale in Denying Inari's Petition Wrongly Conditions PGR Eligibility on Analyzing the Genomes of Deposited Seed and Thereby Risking Liability for Patent Infringement

In denying Inari's PGR petition, the Board violated Inari's Constitutional due process rights by conditioning Inari's right to pursue PGR on Inari sequencing the deposited seed and thereby subjecting itself to the risk of a patent infringement suit. Such an unwinnable Catch-22 is repugnant to "our Nation's history, legal traditions, and practices." *Washington v. Glucksberg*, 521 U.S. 702, 710 (1997) ("We begin, as we do in all due process cases, by examining our Nation's history, legal traditions, and practices."). Indeed, Catch-22 scenarios are unconstitutional under the Due Process Clause even if arising from statutory text. *See*, *e.g.*, *Wigglesworth v. State of Or.*, 49 F.3d 578, 581 (9th Cir. 1995); *De Jesus v. Comm'r of Soc. Sec.*, No. CV 18-1273 (SCC), 2019 WL 13204388, at *4 (D.P.R. Sept. 30, 2019) ("Such a statutory catch-22 cannot survive a due process challenge." They are even more

clearly impermissible shenanigans where (as here) agencies violate statutory design.

The AIA entitles any "person" other than the owner of a patent to "file with the Office a petition to institute a post-grant review of the patent" within "9 months after" issuance provided the person pays the requisite "fees" determined by the Director "considering the aggregate costs of the post-grant review." 35 U.S.C. § 321; *see also Return Mail, Inc. v. United States Postal Serv.*, 587 U.S. 618, 635 (2019) (noting that Congress had "afford[ed] nongovernmental actors an expedient route" to challenge patent claims).

Congress did not impose any other preconditions on such PGR requests. Importantly, parties may seek PGR regardless of whether they have been sued or otherwise charged with patent infringement. This differs from the now-expired "transitional program for covered business method patents," under which the AIA temporarily authorized PGR-like proceedings for certain patents even after they had been in force for longer than 9 months, but only if the person filing the CBM request had "been sued for infringement of the patent or has been charged with infringement under that patent." Pub. L. 112-29, § 18(a(1)(B)), 125 Stat. 284, 330 (2011). "Charged with infringement means a real and substantial controversy regarding infringement of a covered business method patent exists such that the petitioner would have standing to bring a declaratory judgment action in Federal court." 37 C.F.R. § 42.302. Put differently, CBMs were only available to parties that had either

(1) been sued or (2) "established a reasonable potential" of being sued. *Mitek Sys., Inc. v. United Servs. Auto. Ass'n*, 139 F.4th 1340, 1352 (Fed. Cir. 2025) (affirming dismissal of declaratory judgment action).

Unlike CBMs, in other words, the PGR process entitles any "person" to request reconsideration of patent claims ***without*** risking federal court litigation. PGRs afford "nongovernmental actors an expedient route" to clear patents and "head[] off potential infringement suits" ***without*** running the "uncertain risks" of such litigation. *Return Mail*, 587 U.S. at 635 (contrasting such risks with the government's more favorable position).

Notwithstanding this mechanism, the Board's institution decision wrongly faulted Inari for not having risked federal court litigation. Misled by PO, the Board declined to institute review because Inari did not test the deposited seed and analyze the genotype of the claimed corn variety. *See supra* § IV.E. But PO itself was already suing Inari for having obtained and tested seed deposits associated with a different variety. *See supra* § IV.F. The district court indeed has allowed the case to proceed on the theory that despite the "availability" of deposits after patent issuance, the public is not entitled "to exploit them in any way." *Corteva Agriscience*, 743 F.Supp.3d at 619. The Board's logic therefore subjects Inari to the epitome of an unwinnable Catch-22. If allowed to stand, the only way Inari could pursue AIA reviews of plant utility patents such as the '803 Patent would be to test the deposited

seed and analyze its unclaimed genome. PO here is ***already*** suing Inari for such genetic analysis in connection with a different plant utility patent. *See supra* § IV.F. More recently, PO doubled down on this position and reiterated that its arguments in the instant PGR (i.e., that Inari should have sequenced the deposited seed) did ***not*** "provid[e] a license to test or" otherwise promise "that no patent liability would result." Appx00648; *see also supra* § IV.G.

The Board cannot condition Inari's ability to pursue PGRs by coercing Inari into running the risk of facing future patent infringement suits. AIA trial proceedings instead are intended to provide an ***alternative*** to litigation and allow "nongovernmental actors" to manage the "uncertain risks" they would otherwise face in federal district court if litigating "potentially invalid patents." *Return Mail*, 587 U.S. at 635. The Director and Board plainly cannot attach conditions to AIA trial requests that subject unsuccessful requesters to such risks.

To be sure, there is no constitutionally protected right to file PGR requests. But this is immaterial, as the "unconstitutional conditions" doctrine centers around "cases involv[ing] a ***gratuitous*** governmental benefit of some kind." *Koontz v. St. Johns River Water Mgmt. Dist*., 570 U.S. 595, 608 (2013) (collecting cases: "[W]e have repeatedly rejected the argument that if the government need not confer a benefit at all, it can withhold the benefit because someone refuses to give up constitutional rights."); *see also Wieman v. Updegraff*, 344 U.S. 183, 191 (1952)

(explaining in unconstitutional conditions case that to focus on "the facile generalization that there is no constitutionally protected right to public employment is to obscure the issue").

The Director's ostensibly "broad powers" in deciding whether to institute review indeed make PGR requests "***especially vulnerable*** to the type of coercion that the unconstitutional conditions doctrine prohibits." *Koontz*, 570 U.S. at 605; *see also Martin v. United States*, 894 F.3d 1356, 1364 (Fed. Cir. 2018) (quoting *Koontz*). In *Koontz*, the Supreme Court recognized how the broad discretion of regulatory authorities in the "land-use permit" process risked "[e]xtortionate demands," which violate the "unconstitutional conditions doctrine" because they "frustrate the Fifth Amendment right to just compensation." 570 U.S. at 605. Here, likewise, the Board's demand that Inari test seed deposits frustrated Inari's due process right to have the PGR process administered without subjecting Inari to a Catch-22 scenario—much less one that does violence to Congressional design of a reconsideration on the same patentability standard.

In sum, the Board's reliance on Inari's decision not to test the deposited sample (and thereby subject itself to the risk of patent litigation) is a transparently unconstitutional shenanigan crying out for review. Even assuming the Board may deny PGR requests "for any number of reasons, there are some reasons upon which the government may ***not*** rely." *Perry v. Sindermann*, 408 U.S. 593, 597 (1972); *see*

also In re Tam, 808 F.3d 1321, 1349-1355 (Fed. Cir. 2015) (en banc) (quoting same and holding that "the government may not place unconstitutional conditions on trademark registration"). The Board certainly cannot fault petitioners for declining to subject themselves to the risk of liability for patent infringement. Yet the Board impermissibly denied Inari's PGR request on that basis—creating a Catch-22 that turns Congressional design on its head.

b. The Board's Rationale Contradicts the Office's Settled Practice for Examining Claims in Prosecution and the Public Notice Function of Patents, on Which Inari Relied in Formulating its PGR Challenge

The Board's denial also violated Inari's Constitutional due process rights by faulting Inari's obviousness theories for lacking analysis that indisputably would have been ***unnecessary*** had the Office made an obviousness rejection in the first instance during prosecution. *See supra* §§ IV.E-F. The Board thereby improperly pronounced a heightened new standard of assessing the unpatentability of plant utility claims post-grant that the agency does not apply pre-grant. This new standard effectively creates an impermissible ***presumption of patentability*** in IPRs and PGRs for plant utility claims.

In particular, the Board wrongly faulted Inari's unpatentability analysis under § 103 for not having sequenced PO's seed deposit. But a seed deposit is required to satisfy § 112 mandates and is not sequenced pre-grant as part of any initial patentability determination. The Challenged Claims ***do not require any sequence***—

much less that associated with the deposited seed. Instead, as PO admits, the deposit is merely "an ***exemplary*** embodiment." Appx00389. The Board's decision wrongly turns on this non-limiting specification example and allows PO to skirt Inari's patentability challenge based on information PO concedes is omitted from the '803 Patent specification and does not limit the claims.

Sequencing deposited seed cannot be required post-grant when the agency assesses no such data in its pre-grant patentability determination for plant utility patents. Yet under the Board's decision, potential challengers must analyze deposited seed to raise § 103 challenges even though examiners need not and do not analyze such deposits when making § 103 rejections. The Board's decision likewise invites impermissible confusion as to which purportedly "important traits" (Appx00387) potential challengers must analyze despite PO's failure to disclose in the specification, as the public notice function of the patent system requires.

i. The PTO Does Not Analyze Seed Deposits When Examining Plant Utility Claims

Examiners and the Board plainly can and do reject plant utility claims as obvious without analyzing deposits. In a previous Board decision PO itself touted to the Supreme Court as proof the non-obviousness requirement was meaningful in the context of plant utility claims (Appx00072; Appx00326-00327; Appx00333; Appx00340), the Board affirmed a § 103 rejection as to a claimed plant that did "not appear to differ significantly from the prior art plants as measured by" various purely

phenotypic characteristics. *Ex parte C*, 27 U.S.P.Q.2d at 1496 The Board reached that result ***even though the applicant had offered to deposit the claimed seed***. *Id*. at 1494.

As *Ex parte C* illustrates, seed deposits are wholly irrelevant to determining whether patent claims satisfy the non-obviousness requirement. By Office rule, if a deposit is needed, the affected claims are rejected under ***§ 112***—not § 103. 37 C.F.R. § 1.809(a). And even then, in responding to such rejections, applicants need only provide an actual deposit ***after*** the notice of allowance. § 1.809(c). This timing further belies any suggestion that seed deposits are relevant when examining whether patent claims satisfy § 103.

ii. The PTO Violated Inari's Due Process Rights in Holding Inari to a Higher Burden Post-grant than the Office Applied Pre-grant

Inari's PGR petition reasonably relied on this black-letter law and the Office's longstanding practice, as well as the public notice function patents must satisfy. In particular, Inari presented a fulsome obviousness analysis that paralleled the Board's analysis in *Ex parte C* explaining why earlier plant utility claims were unpatentable under § 103. *See supra* § IV.B. Like the Office, Inari scrutinized the claimed plant's properties as reported in the specification and highlighted the "numerous similarities between the claimed variety and the varieties of the cited prior art." *Ex parte C*, 27 U.S.P.Q.2d at 1497. Like the Office, Inari further documented why the minimal

differences reported in the specification were not "so significant and unexpected that they should weigh more heavily than the numerous similarities." Appx00083; *see also supra* § IV.B. And like the Office, Inari did ***not*** test seed deposits to assess properties PO did not see fit to disclose—much less claim—when seeking to patent the claimed plant variety.

Indeed, given the public notice function of patents, obviousness must be assessed based on the "***claimed*** invention." 35 U.S.C. § 103. The seed deposit's genome "is an "unclaimed and undisclosed feature" that "cannot be the basis for finding [PO's] patent to be non-obvious over the prior art." *Smith & Nephew, Inc. v. Rea*, 721 F.3d 1371, 1381 (Fed. Cir. 2013); *see also Royer v. Roth*, 132 U.S. 201, 206 (1889) ("[T]here is no suggestion of any such invention in the specification or the claim."). Any other approach would spawn endless uncertainty as to which undisclosed features purportedly constitute "important traits" (Appx00387). *See McCarty v. Lehigh Val R Co*., 160 U.S. 110, 116 (1895) ("[I]f we once begin to include elements not mentioned in the claim, in order to limit such claim, and avoid a defense of anticipation, we should never know where to stop.") Such confusion is antithetical to the "adequate notice demanded by due process of law." *Application of Hammack*, 427 F.2d 1378, 1382 (CCPA 1970) (affirming indefiniteness rejection).

In faulting Inari's PGR request for not having sequenced PO's deposited seed, the Board spawned such confusion while announcing a new patentability standard applicable only to AIA trial proceedings. Aside from being substantively wrong and contrary to Congress's intent in creating these proceedings, retroactive application of this new standard violated Inari's "due process interests of 'fair notice, reasonable reliance, and settled expectations.'" *De Niz Robles v. Lynch*, 803 F.3d 1165, 1169 (10th Cir. 2015) (Gorsuch, J.) (quoting *Landgraf v. USI Film Prods*., 511 U.S. 244, 270 (1994)); *see also Monteon-Camargo v. Barr*, 918 F.3d 423, 430–31 (5th Cir. 2019) (holding that retroactively applying new caselaw would compromise those "familiar [due process] considerations") (quoting *Landgraf*).

When preparing its PGR petition concerning PO's plant utility claims, Inari reasonably relied on the patentability statutes and notice function of the subject patent. As the PGR petitioner, Inari stood in place of Office examiners for purposes of "***reconsider[ing***] whether [the challenged claims] satisfy the novelty and nonobviousness requirements." *Arthrex*, 594 U.S. at 8. Pursuant to this "second look" (*Cuozzo*, 579 U.S. at 279), Inari had "the burden of proving a proposition of unpatentability by a preponderance of the evidence" (35 U.S.C. § 326(e))—the identical burden the Office faces during prosecution.

In particular, Inari reasonably relied on the Board's finding in *Ex parte C* that the plant utility claims in question were unpatentable as obvious despite the patent

applicant's offer to deposit seed. "[T]he actions taken by the examiner in the examination of applications for patents are to a great extent ***governed by decisions on prior cases***." Manual of Patent Examining Procedure, Introduction. Inari accordingly scrutinized such decisions—including *Ex parte C*— when preparing its request for the Board to reconsider the examiner's conclusion that the challenged claims were patentable. The Board's previous analysis confirmed Inari's settled expectation that testing PO's deposited seed was not necessary to assess whether PO's plant utility claims satisfied § 103.

Indeed, PO never identified any decision suggesting that seed deposits are relevant to § 103—even after Inari highlighted PO's initial silence. *See supra* §§ IV.C-D. Nor did the Board identify any such precedent when refusing to institute Inari's petition.

Having previously indicated (in *Ex parte* C) how to conclude that plant utility claims are unpatentable as obvious during prosecution, the Office cannot "move the goal-posts once [it] has done so" and impose different rules when reconsidering obviousness in PGRs challenging plant utility claims following issuance. *Hudick v. Wilkie*, 755 F. App'x 998, 1007 (Fed. Cir. 2018) (holding that petitioner "did not receive a fair hearing because the Board refused to apply rules it told Hudick would govern his adjudication"); *see also Kirkpatrick v. McDonough*, No. 2021-1781, 2021 WL 5352871, at *4 (Fed. Cir. Nov. 17, 2021) (describing *Hudick* as a "constitutional

challenge"). In nevertheless denying Inari's petition and faulting Inari for providing an obviousness analysis that did not analyze PO's seed deposit, the Board violated "the guarantee of procedural fairness provided by the Due Process Clause." *Hudick*, 755 F. App'x at 1007; *see also Cemex Inc. v. Dep't of the Interior*, 560 F. Supp. 3d 268, 281–82 (D.D.C. 2021) (explaining that due process requires an agency to take into account reliance interests when changing course).

Inari's right to relief is particularly clear and indisputable given that the Board ***explicitly faulted*** Inari for failing to test PO's deposited seed even though the Office's own established procedures, regulations, and precedent confirmed that no such testing was required. It is immaterial whether or not the Board could have reasonably denied Inari's PGR request on some other ground. *See Vitarelli v. Seaton*, 359 U.S. 535, 539 (1959) (reversing agency's discharge of an employee notwithstanding agency's power to "discharge summarily an employee…***without*** the giving of any reason"). In *Vitarelli*, the Secretary of the Interior had "gratuitously decided to give a reason" (namely, "national security") for discharging an employee. The employee successfully challenged his discharge because the Secretary had failed to follow "regulations which he himself had promulgated for dealing with such [security] cases, even though without such regulations he could have discharged petitioner summarily." 359 U.S. at 973. Here, likewise, Inari would be entitled to mandamus even if it were true (as the Office has contended in other currently

pending proceedings) that the Director could deny petitions without offering any reason. Simply put, Inari has a clear and indisputable right to have its PGR request considered without violating Inari's due process rights.

2. The Board's Rationale in Denying Inari's Petition Violates the Constitution's Separation of Powers Because It Encroaches Upon Congress's Duty to Set Patentability Standards and Review Procedures Once Patents Are Issued

Inari also has a clear and indisputable right to relief because the denial of institution violates the "Constitution's separation of powers" in that the Board's rationale rewrote the AIA's clear statutory thresholds and was "inconsistent with" the statute's structure and design. *Util. Air Regul. Grp. v. EPA*, 573 U.S. 302, 327 (2014).

Congress mandated that AIA trial proceedings be subject to the same "preponderance of the evidence" standard that applies during patent examination. 35 U.S.C. § 326(e). Congress likewise mandated that PGRs in particular be available for any "person" other than the patentee to seek within "9 months after" issuance provided the person pays the requisite "fees"—regardless whether the requester faces potential liability for infringing the challenged patent. 35 U.S.C. § 321; *see also Return Mail*, 587 U.S. at 635 (noting that Congress had "afford[ed] nongovernmental actors an expedient route" to challenge patent claims).

The Board's decision turns these Congressional mandates on their head and wrongly encroaches upon Congress's legislative power. The Board's demand for

sequencing analysis—above and beyond anything required of the Office during prosecution—wrongly ***presumes*** patentability. Further, the Board wrongly endorsed a system whereby purportedly "important traits" (Appx00387) are stored in deposited seed that is only accessible when infringed—notwithstanding the public notice function of patents Congress mandated. *See* 35 U.S.C. § 112 ("The specification shall contain a written description of the invention…."); *see also Util. Air Regul. Grp.*, 573 U.S. at 328("[A]n agency may not rewrite clear statutory terms to suit its own sense of how the statute should operate.").

Simply put, the Board purports "to transgress the separation of powers," thereby putting "liberty" at stake. *Clinton v. City of New York*, 524 U.S. 417, 450 (1998) (Kennedy, J., concurring) ("Liberty is always at stake when one or more of the branches seek to transgress the separation of powers."). Inari "loses liberty in a real sense" if the effective requirements for seeking reconsideration of patent franchises is "determined by the Executive alone, without adequate control by" Congress. *Id*. at 451. The Board's decision indeed wrongly raises the standard for such reconsideration while subjecting Inari and other would-be challengers to the risk of patent infringement—notwithstanding Congress's intent to create AIA trial proceedings as an expedient ***alternative*** to litigation.

B. Inari Has No Other Adequate Method of Obtaining Relief

Inari has no other adequate method of obtaining relief aside from the instant petition, which asks the Court to vacate the Board's denial of institution and remand with instructions to consider Inari's PGR request without violating Inari's due process rights or the Constitution's separation of powers. The requested PGR differs fundamentally from both *ex parte* reexamination (EPR) and invalidity challenges in civil litigation.[8]

EPR entails an "inquisitorial process between patent owner and examiner." *SAS Inst., Inc. v. Iancu*, 584 U.S. 357, 360 (2018). By contrast, with AIA trial proceedings, "Congress opted for a party-directed, adversarial process." *Id*. at 364; see also 37 C.F.R. § 42.100 ("An inter partes review is a ***trial***…."); PTAB Consolidated Trial Practice Guide (November 2019), 63 ("An ex parte reexamination proceeding is ***not a trial proceeding***.") As such, AIA trial proceedings offer "non-patent owners" a "meaningfully different" mechanism than EPRs for challenging patents. *Return Mail,* 587 U.S. at 633-634 (noting that challengers are "not permitted to participate in the Patent Office's [EPR] process").

Invalidity challenges in civil litigation must be proven by clear and convincing evidence. *See* 35 U.S.C. § 282. Furthermore, they are only possible if (1) the patent

[8] Inari's PGR request likewise included grounds under § 101, which would not have been possible to raise in an IPR or EPR. *See supra* § IV.B.

owner has sued for infringement or (2) the would-be challenger has taken affirmative steps such that it has a "reasonable potential" of being sued to create declaratory judgment jurisdiction. *See supra* § V.A.1.a. Neither is true of the '803 Patent. Inari instead requested PGR to manage the "uncertain risks" associated with assessing Inari's "right to use technology that is subject to potentially invalid patents." *Return Mail*, 587 U.S. at 635. Inari is entitled to have its request considered without violating Inari's Constitutional due process rights or jeopardizing the liberty interests safeguarded by the Constitution's separation of powers.

C. Mandamus is Appropriate Under the Circumstances

Mandamus relief is appropriate under the circumstances given the important public interests involved, as confirmed by the patentee's own past statements and current positions.

AIA trial proceedings "protect the public's paramount interest in seeing that patent monopolies . . . are kept within their legitimate scope." *Cuozzo*, 579 U.S. at 279–80 (citation omitted). Congress intended for PGRs and IPRs to "weed out bad patent claims efficiently," to avoid "overpatenting and its diminishment of competition." *Thryv, Inc. v. Click-To-Call Techs., LP*, 590 U.S. 45, 54 (2020).

Here, however, the Board's failure to consider Inari's petition in a manner consistent with Inari's due process rights and the Constitution's separation of powers creates a loophole through which plant breeders could obtain and preserve utility

patents on ***any*** stable new plant variety. Appx00534 ("As Petitioner stressed (Petition at 4) and PO never denies…."). Indeed, simply obtaining deposited seed (as would be necessary for any future post-grant challenge under the Board's logic) often takes more than nine months. As such, the Board's decision threatens to eliminate PGR as an option for plant utility patents—notwithstanding that Congress empowered the public to seek such reviews for any patent within "9 months after the date of the grant." 35 U.S.C. § 321(c).

Yet utility patents on new plant varieties are intended to be the ***exception*** rather than the rule—a point the patentee itself stressed to the Supreme Court when citing *Ex parte C* explaining how § 103 had teeth in the plant breeding space and justified plant utility patents in ***appropriate circumstances*** even though other protection schemes existed with lesser requirements and likewise more limited benefits. Appx00326-00327; Appx00333. Inari in turn relied on *Ex parte C* when preparing its petition. *See supra* § IV.B.

Aside from violating Inari's Constitutional due process rights (*see supra* § V.A.1) and liberty interests protected by the Constitution's separation of powers (*see supra* § V.A.2), the Board's denial threatens to render § 103 meaningless in connection with plant utility claims. The only way Inari or other requesters could formulate challenges going forward would be to test deposited seed and thereby run the risk of being sued for patent infringement. Such risk is a real-world concern, as

highlighted by Corteva's pending patent infringement claims against Inari related to Inari's testing of other deposited seed (*see supra* §§ IV.F and V.A.1.a).

VI. CONCLUSION

Mandamus is needed to vindicate Inari's due process rights and the separation of powers while ensuring consideration of Inari's PGR request subject to the framework Congress created and on which Inari relied when preparing the petition.

Respectfully submitted,

Date: September 4, 2025

/s/ Scott A. McKeown

Scott A. McKeown
WOLF GREENFIELD & SACKS, P.C.
601 Massachusetts Avenue, NW
Washington, DC 20001
Telephone: (202) 389-6025
smckeown@wolfgreenfield.com

Charles T. Steenburg
WOLF GREENFIELD & SACKS, P.C.
600 Atlantic Avenue
Boston, MA 02210
Telephone: (617) 646-8000
Fax: (617) 646-8646
csteenburg@wolfgreenfield.com

Counsel for Petitioner Inari Agriculture, Inc.

ADDENDUM: PTAB DECISION

Trials@uspto.gov
571-272-7822

Paper 18
Entered: September 24, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INARI AGRICULTURE, INC.,
Petitioner,

v.

PIONEER HI-BRED INTERNATIONAL, INC.,
Patent Owner.

PGR2024-00019
Patent 11,659,803 B1

Before ULRIKE W. JENKS, ZHENYU YANG, and JEFFREY W. ABRAHAM, *Administrative Patent Judges.*

JENKS, *Administrative Patent Judge*.

DECISION
Denying Institution of Post-Grant Review
35 U.S.C. § 324

I. INTRODUCTION

Inari Agriculture, Inc. ("Petitioner") filed a Petition requesting a post-grant review of claims 1–20 ("the challenged claims") of U.S. Patent No. 11,659,803 B1 (Ex. 1001, "the '803 patent"). Paper 2 ("Pet."). Pioneer Hi-Bred International, Inc. ("Patent Owner") filed a Preliminary Response to the Petition. Paper 6 ("Prelim. Resp."). In addition, as authorized (*see* Ex. 3002), Petitioner filed Petitioner's Reply to Patent Owner's Preliminary Response (("Reply"), Paper 15) and Patent Owner filed Patent Owner's Sur-reply (("Sur-reply"), Paper 17).

Institution of a post-grant review is authorized by statute when "the information presented in the petition filed under [35 U.S.C. §] 321 . . . demonstrates that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable." 35 U.S.C. § 324(a). For the reasons set forth below, we determine that Petitioner failed to demonstrate that it is more likely than not that claims 1–20 of the '803 patent are unpatentable. Accordingly, we deny institution of a post-grant review of claims 1–20 based on the grounds set forth in the Petition.

A. Real Parties-in-Interest

Petitioner identifies itself, Inari Agriculture, Inc., as the real party-in-interest. Pet. 85. Patent Owner identifies itself, Pioneer Hi-Bred International, Inc., as the real party-in-interest. Paper 3, 1.

B. Related Matters

The parties identify as related matters U.S. Patent Application No. 18/401,164 and U.S. Patent Application No. 18/401,230. Pet. 85; Paper 3, 1. Both U.S. patent applications claim the benefit of the priority of the '803 patent's filing date and were each filed on December 29, 2023.

Pet. 85; Paper 3, 1. Patent Owner states that "[t]hese two applications were not filed by Applicant or any affiliate thereof." Paper 3, 1.

C. The '803 patent (Ex. 1001)

The '803 patent is titled "Maize Inbred 1PFLQ21." Ex. 1001, code (54). The '803 patent was filed as Application No. 17/366,126 ("the '126 application") on July 2, 2021. *Id.*, codes (21), (22). The '803 patent discloses "[a] new and distinctive maize inbred variety designated 1PFLQ21, which has been the result of years of careful breeding and selection in a comprehensive maize breeding program." Ex. 1001, 4:41–44.

The '803 patent discloses that "[t]he breeder's goal is to combine in a single variety or hybrid, various desirable traits." *Id.* at 1:11–12. In developing a desirable maize variety for field crops, such desirable "traits may include resistance to diseases and insects, resistance to heat and drought, reducing the time to crop maturity, greater yield, altered fatty acid profile, abiotic stress tolerance, improvements in compositional traits, and better agronomic characteristics and quality." *Id.* at 1:11–17. The '803 patent seeks to "develop stable, high yielding maize varieties and hybrids that are agronomically sound with maximal yield over one or more different conditions and environments." *Id.* at 1:24–26.

The '803 patent describes that the maize inbred variety designated 1PFLQ21 "originated from a cross between inbred line PH1V5T and inbred line PH2F7K." *Id.* at 37:60–64. First generation or F1 plants were then "selected based on genetic analysis predicting disease, insect, and agronomic phenotypic performance." *Id.* at 37:64–66. The '803 patent describes that "a doubled haploid" was produced "from the F1 plants, selfing and using pedigree selection amongst the D1 lines, and selfing and bulking from the subsequent generations." *Id.* at 37:66–38:1. The inbred line is "substantially

homozygous." *Id.* at 38:4–5. A deposit "of at least 625 seeds of Maize Variety 1PFLQ21" was made "with the Provasoli-Guillard National Center for Marine Algae and Micro biota (NCMA) . . . with NCMA Accession Number 202212046." *Id.* at 37:33–36.

The inbred maize variety 1PFLQ21 "may be used as a male or female in the production of the first generation F1 hybrid" with demonstrated phenotypic "uniformity and stability within the limits of environmental influence for all the traits as described in the Variety Description Information" listed in Table 1. *Id.* at 15:1–6. According to the '803 patent, "[t]he variety has been self-pollinated and ear-rowed a sufficient number of generations with careful attention paid to uniformity of plant type to ensure sufficient homozygosity and phenotypic stability for use in commercial hybrid seed production." *Id.* at 15:7–11.

The '803 patent discloses the genotypic characteristics of 1PFLQ21:

> 1PFLQ21 is substantially homozygous. This homozygosity can be characterized at the loci shown in a marker profile. An F1 hybrid made with 1PFLQ21 would substantially comprise the marker profile of 1PFLQ21. This is because an F1 hybrid is the sum of its inbred parents, e.g., if one inbred parent is homozygous for allele x at a particular locus, and the other inbred parent is homozygous for allele y at that locus, the F1 hybrid will be xy (heterozygous) at that locus. A genetic marker profile can therefore be used to identify hybrids comprising 1 PFLQ21 as a parent, since such hybrids will comprise two sets of alleles, one set of which will be from 1PFLQ21.

Id. at 15:18–30.

According to the '803 patent, "[m]aize variety 1PFLQ21, being substantially homozy[]gous, can be reproduced by planting seeds of the variety, growing the resulting maize plants under self-pollinating or sib-

pollinating conditions with adequate isolation, and harvesting the resulting seed using techniques familiar to the agricultural arts." *Id.* at 38:4–9.

D. Illustrative Claim

Independent claim 1 of the '803 patent is illustrative and is reproduced below.

> 1. A seed, plant, plant part, or plant cell of inbred maize variety 1PFLQ21, representative seed of the variety having been deposited under NCMA accession number 202212046.

Ex. 1001, 39:31–33.

E. Asserted Grounds of Unpatentability

Petitioner challenges the patentability of claims 1–20 of the '803 patent on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–20	103	Chifflet[1], Plant Variety Protection Certificate ("PVPA") certificate 201300302[2]
1–20	103	Smalley[3], PVPA certificate 201000366[4]
1–20	103	Gadlage[5]
1–20	101	Utility
1–20	324(b)	Novel or unsettled legal question

[1] Chifflet, US 8,907,160 B1, issued Dec. 9, 2014 (Ex. 1005).
[2] Plant Variety Protection Certificate No. 201300302, Inbred Maize Variety PH1V5T, filed Mar. 29, 2013 (Ex. 1008).
[3] Smalley, US 8,466,351 B1, issued June 18, 2013 (Ex. 1006).
[4] Plant Variety Protection Certificate No. 201000366, Inbred Maize Variety PH18KJ, filed July 9, 2010 (Ex. 1009).
[5] Gadlage et al., US 10,405,509 B1, issued Sept. 10, 2019 (Ex. 1007).

Pet. 7. Petitioner also relies on the Declaration of Raymond D. Riley, Ph.D. (Ex. 1003) to support its assertions. Patent Owner relies on the Declarations of Patrick S. Schnable, Ph.D. (Ex. 2004) and Jason Wheeler (Ex. 2028).

F. Eligibility for Post-Grant Review

The AIA's post-grant review provisions apply to patents that "contain[] or contained at any time . . . a claim to a claimed invention that has an effective filing date . . . that is on or after [March 16, 2013]." Leahy-Smith America Invents Act (AIA) §§ 3(n)(1), 6(f)(2)(A) (2011). In addition, "[a] petition for a post-grant review may only be filed not later than the date that is 9 months after the date of the grant of the patent or of the issuance of a reissue patent (as the case may be)." 35 U.S.C. § 321(c) (2012); *see* 37 C.F.R. § 42.202(a) (2019).

Here, there is no dispute that the '803 patent is eligible for post-grant review. Petitioner filed the Petition within nine months of the '803 patent's issue date, and the effective filing date of the '803 patent is after March 16, 2013 (the effective date for the first inventor to file provisions of the Leahy-Smith America Invents Act). Ex. 1001, code (22) (showing a filing date of July 2, 2021), code (45) (showing an issue date of May 30, 2023); Pet. 10 (explaining that the '803 patent "does not assert an effective filing date earlier than the actual [July 2, 2021] filing date of the '126 Application."); Paper 5 (according the Petition a filing date of February 29, 2024).

II. ANALYSIS

A. Person of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art "had a high level of skill, with a doctoral degree in plant breeding or a related field, at least five years of experience with corn breeding, and additional experience

interfacing with laboratory-side personnel (including a computational biologist as along with genetics specialists) as well as field-side personnel." Pet. 13 (citing Ex. 1003, ¶¶ 19–21). Petitioner also states that, "[a]lternatively, additional experience could take the place of an advanced degree." *Id.*

Patent Owner states that it "does not dispute Petitioner's definition of the qualifications of person of skill in the art" and "reserves its right to challenge Petitioner's definition and to provide its own definition, should trial be instituted." Prelim. Resp. 24.

Petitioner's unopposed proposed definition is consistent with the cited prior art and the disclosure of the '803 patent, and we adopt it for purposes of this Decision. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (explaining that the prior art itself may "reflect[] an appropriate level" of ordinary skill in the art) (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163 (Fed. Cir. 1985)).

B. Claim Construction

In this post-grant review, we construe the claims of the '803 patent "using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. [§] 282(b)." 37 C.F.R. § 42.200(b) (2019). Under that standard, the words of a claim are generally given their "ordinary and customary meaning," which is the meaning the term would have to a person of ordinary skill at the time of the invention, in the context of the entire patent including the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc).

Petitioner contends that "[b]ecause Petitioner's grounds plainly render the claims unpatentable under any plausible construction, no outer boundary constructions are necessary." Pet. 20. Patent Owner also does not construe

any claim terms. *See generally* Prelim. Resp. For purposes of this Decision, and based on the record before us, we determine that none of the claim terms requires an explicit construction to determine whether to institute post-grant review. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) ("[W]e need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy.'" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

C. Claims 1–20: Alleged Obviousness over Chifflet (Ex. 1005) and PVPA certificate 201300302 (Ex. 1008)

We have reviewed the parties' arguments and supporting evidence with respect to claims 1–20. We determine that Petitioner has not shown it is more likely than not that claims 1–20 would have been obvious in view of Chifflet (Ex. 1005) and PVPA certificate 201300302. *See* Pet. 39–50. We begin with a review of the relevant references and then address the parties' contentions.

1. Prior Art

a) Overview of Chifflet (Ex. 1005)

Chifflet is U.S. Patent No. 8,907,160 B1 assigned to Pioneer Hi-Bred International, Inc. and titled "Maize Inbred PH1V5T." Ex. 1005, codes (54), (73). Chifflet describes that inbred maize variety PH1V5T was developed by crossing "inbred line PHVNV and inbred line PHNTV," selfing the resulting F1 plants and "using ear-to-row (pedigree) selection from the F2 to F11 generation, and bulking the F12 seed." *Id.* at 12:34–40. The inbred line is "substantially homozygous." *Id.* at 12:41. A deposit "of at least 2,500 seeds of Maize Variety PH1V5T" was made "with the American Type Culture

Collection (ATCC) . . . with ATCC Deposit No. PTA-121499." *Id.* at 40:38–42.

Chifflet's Table 1 contains a description of some of the variety's phenotypic characteristics. *Id.* at 34:1–53. Chifflet's Table 2 contains a "general combining ability report" (*id.* at 15:46–47), Table 3 "compare[s] a specific hybrid for which PH1V5T is a parent with other hybrids" (*id.* at 15:63–16:14), and Table 4 contains a list of public genetic markers that can be used to genetic marker profile a maize variety (*id.* at 31:30–34).

b) Overview of PVPA certificate 201300302 (Ex. 1008)

PVPA certificate 201300302 is the Plant Variety Protection Certificate for inbred maize variety PH1V5T. Ex. 1008. PVPA certificate 201300302 describes that PH1V5T is "most similar" to, but "significantly different" from, its parent PHNTV. *Id.* at 5. PVPA certificate 201300302 discloses that inbred maize variety PH1V5T possesses "a greater average number of kernel rows on the ear," "a greater average number of nodes above ground," and "a wider average leaf width" than its parent, PHNTV. *Id.*

2. Petitioner's Contentions

Petitioner contends that "Chifflet and the corresponding [Plant Variety Protection Act] PVPA Certificate disclose PH1V5T—one of the two parent varieties of the 1PFLQ21 variety claimed in the '803 Patent." Pet. 39 (citing Ex. 1005; Ex. 1008). Petitioner contends that Chifflet discloses an inbreed corn variety PH1V5T can be used "to Develop another Maize Plant" and in particular is a "source of breeding material that may be used to develop new maize inbred varieties." Pet. 39 (citing Ex. 1005, 28:30–35). In addition, Petitioner contends that Chifflet also "discloses specific cross breeding

techniques for producing such "new inbred" varieties. Pet. 39 (citing Ex. 1005, 2:43-49; Ex. 1003 ¶¶ 93–95).

Petitioner contends that a person of ordinary skill in the art would have had a reasonable expectation of success in in using the parental line PH1V5T in arriving at other inbred lines. Pet. 40 (citing Ex. 1003 ¶98). Petitioner contends that "[v]ariety 1PFLQ21's disclosed characteristics are highly similar to those in the PH1V5T parent and nothing in the specification or otherwise in the intrinsic record suggests any property that a POSA would have viewed as surprising or unexpected over PH1V5T." Pet. 40. Petitioner urges us to follow the reasoning set out in *Ex parte C* because "the record does 'not explain the significance of any differences in attributes between the novel variety and varieties that are old in the art.'" *Id.* (quoting *Ex parte C*, 27 USPQ2d 1492, 1493 (BPAI 1992)).

3. Patent Owner's Contentions

Patent Owner opposes. Specifically, Patent Owner argues that the biological deposit for the 1PFLQ21 inbreed maize variety is part of the '803 patent claims. Prelim Resp. 45; Ex. 1001, 37:31–59 (a seed deposit was made to National Center for Marine Algae and Microbiota (NCMA) Accession Number 202212046 and "[u]pon issuance of any claims in the application, the Applicant will make the deposit available to the public"). Patent Owner contends that Petitioner must compare the claims of the '803 patent with the prior art and that would include "the seed deposit, which *describes* the claimed variety and enables a POSA to make and use it." Sur-Reply 6. In other words, Patent Owner contends that the seed deposit not only describes the phenotype but also the genotype of the claimed inbred maize.

Patent Owner further contends that "PH2F7K, one of the claimed variety's parents, was *not* known in the art at the relevant time," therefore, there is no reasonable expectation of success in developing 1PFLQ21. Prelim. Resp. 46 (emphasis added). "1PFLQ21 genetic and phenotypic characteristics are a combination of those of both its parents' (PH2F7K and PH1V5T) genome and phenotype." Prelim Resp. 47 (citing Ex. 2004 ¶ 117). "As explained during examination, PH2F7K is not prior art because it was a proprietary inbred line and not publicly available at the relevant time." Prelim. Resp. 48 (Ex. 1002, 126).

Patent Owner contends that the Petition fails to provide a motivation for taking one of the known parental strains – PH1V5T (Chifflet) – and then modifying the inbred maize to arrive at the claimed 1PFLQ21. Prelim. Resp. 50. Specifically, Patent Owner contends that "the question is not whether an inbred maize variety can be bred using PH1V5T, the question is whether a [person of ordinary skill in the art] would have a reasonable expectation of success obtaining the claimed variety based on the disclosures of PH1V5T." Prelim. Resp. 51.

Patent Owner contends that "Petitioner relies strictly on phenotypic characteristics in determining PH1V5T renders 1PFLQ21 obvious and relies purely on hindsight to do so." Prelim. Resp. 52. "[A] a direct comparison of PH1V5T and the phenotypes listed in Table 1 of the '803 patent show substantial differences." *Id.* (citing Ex. 2004 ¶¶ 130–131).

Patent Owner contends that even if PH2F7K were known in the art, "[a] cross between PH2F7K and PH1V5T results in a genetically identical F1 hybrid population, in terms of its genetic content (50% from each parent). However, because they are heterozygous, progeny plants from the subsequent generations required to generate a new inbred variety are

expected to be different both genotypically and phenotypically." Prelim Resp. 53 (citing Ex. 2004 ¶¶ 118, 126). In other words, "progeny plants represent innumerable numbers of recombinations and rearrangements of the parent genomes." *Id.*; Ex. 2004 ¶ 118 ("A POSA would not expect that a cross of the same parents will produce the same child.").

Dr. Schnable, Patent Owner's Declarant, explains that the calculated difference in genotype between 1PFLQ21 (child) and PH1V5T (parent), is "approximately 20% of genotyped genetic markers (i.e., sharing only 80% of the 2,978 markers genotyped and homozygous for both inbred varieties). This level of genetic differentiation is not surprising given the differences in pedigrees. Additional genotyping would be expected to uncover additional genetic differences." Ex. 2004 ¶ 118 (citing Ex. 2028).

4. Analysis

Based upon our review of the arguments and evidence, we find that Petitioner has not shown that it is more likely than not that the claims are obvious over the cited references.

a) Claim 1

Claim 1 is directed to "[a] seed, plant, plant part, or plant cell of inbred maize variety 1PFLQ21, representative seed of the variety having been deposited under NCMA accession number 202212046." Ex. 1001, 39:31–33. The claim is directed to inbred maize variety 1PFLQ21 and encompasses both the genotype and phenotype associated with that particular seed. When claims are directed to biological material and words alone cannot sufficiently describe the invention, our rules allow for such biological material to be deposited. 37 C.F.R. 1.801–1.809; *see also* MPEP 2402–2410.

The '803 patent provides:

> Applicant has made a deposit of at least 625 seeds of Maize Variety 1PFLQ21 with the Provasoli-Guillard National Center for Marine Algae and Micro biota (NCMA) . . . Upon issuance of any claims in the application, the Applicant will make the deposit available to the public pursuant to 37 C.F.R. § 1.808. This deposit of the Maize Variety 1PFLQ21 will be maintained in the NCMA depository, which is a public depository, for a period of 30 years, or 5 years after the most recent request, or for the enforceable life of the patent, whichever is longer, and will be replaced if it becomes nonviable during that period.

Ex. 1001, 37:32–51.

By depositing the seeds Patent Owner is making the genetic sequence (genotype) of 1PFLQ21 maize variety available. As Patent Owner noted, the present claim is directed to inbred maize variety 1PFLQ21, which is genetically described by the exemplary seed "deposited under NCMA accession number 202212046." Prelim Resp. 33 (citing Ex. 1001, Claim 1).

> 1PFLQ21's genetic make-up is described in the specification via the seed deposit. *See, e.g.*, *Enzo Biochem, Inc. v. Gen-Prove Inc.*, 323 F.3d 956, 965 (Fed. Cir. 2002) ("[R]eference in the specification to a deposit in a public depository, which makes its contents accessible to the public when it is not otherwise available in written form, constitutes an adequate description of the deposited material sufficient to comply with the written description requirement of § 112 ¶1."); *see also Monsanto Co. v. Scruggs*, 459 F.3d 1328, 1336 (Fed. Cir. 2006) (failure to disclose a specific DNA sequence for genus claim did not render claim invalid where POSA could determine the DNA sequence based on the identification of the genus and publicly available biological deposits referenced in the patent specification).

Prelim Resp. 40–41. Thus, claim 1, which is directed to inbred maize variety 1PFLQ21, which is genetically described by the exemplary seed "deposited under NCMA accession number 202212046," encompasses both the genotype and phenotype associated with that particular seed.

Patent Owner is correct that Petitioner focuses its obviousness challenge on 1PFLQ21's phenotype, and does not address its genotype. Prelim. Resp. 41; *see* Pet. 26–31 (comparing 1PFLQ21's phenotype with the phenotypes of the asserted prior art). Petitioner does not direct us to any information in the Petition or Reply regarding 1PFLQ21's genotype that supports Petitioner's arguments regarding obviousness.[6] Patent Owner and Dr. Schnable present evidence suggesting genotypic differences between 1PFLQ21 and the asserted prior art. Prelim. Resp. 42; Ex. 2004 ¶¶ 140, 147, 154. This information, coupled with Petitioner's lack of evidence in the prior art regarding 1PFLQ21's genotype, undermines Petitioner's obviousness challenge.

We agree with Patent Owner that Petitioner fails to demonstrate sufficiently that a person of ordinary skill in the art would have had a reasonable expectation of success in developing 1PFLQ21 based on Chifflet and the PVPA certificate 201300302. Prelim. Resp. 52. According to the '803 patent specification, the claimed 1PFLQ21 inbred maize variety is a cross between inbred line PH1V5T and inbred line PH2F7K. Ex. 1001,

[6] In its Reply, Petitioner argues that requiring an analysis of the claimed variety's genome violates the holding in *KSR Int'l Co. v. Teleflex*, 550 U.S. 398 (2007), requiring flexibility in an obviousness analysis and the holding in *LKQ Corporation v. GM Global Tech. Ops. LLC*, 102 F.4th 1280 (Fed. Cir. 2024) (en banc), which overturned a Board decision applying an overly rigid test for obviousness in the context of design patent applications. Reply 8. Petitioner's arguments are not persuasive. First, to the extent Petitioner is arguing that the holding in *LKQ* somehow applies here, we disagree, as *LKQ* was a case directed to design patent applications, not utility patents directed to plant varieties. Second, although *KSR* does address flexibility in an obviousness analysis, it does not permit obviousness challenges that avoid addressing the claim elements.

37:61–64. In the simplest terms, PH1V5T and PH2F7K are the parents and their cross ultimately resulted in the inbred variety 1PFLQ21. The '803 patent explains that after the initial crossing of the parental lines, the selection of the progeny was based on genetic analysis predicting disease, insect, and agronomic phenotypic performance. *Id.* 37:64–66. "Inbred 1PFLQ21 was developed by producing a doubled haploid from the F1 plants, selfing and using pedigree selection amongst the D1 lines, and selfing and bulking from the subsequent generations." *Id.* 37:66–38:3. The '803 patent specification, therefore, makes it clear that simply crossing both parental inbred maize lines is not reasonably expected to result in the claimed inbred maize variety; rather, it explains that more plant breeding work is required to arrive at the 1PFLQ21 inbred maize line than just having both parental inbred maize lines available.

Chifflet explains that "[a]n important consequence of the homozygosity and homogeneity of the inbred variety is that the hybrid between a defined pair of inbreds may be reproduced indefinitely as long as the homogeneity of the inbred parents is maintained." Ex. 1005, 15:9–13. According to Chifflet, the inbred maize variety "PH1V5T may be used to produce hybrid maize. One such embodiment is the method of crossing maize variety PH1V5T with another maize plant, such as a different maize variety, to form a first generation F1 hybrid seed." Ex. 1005, 14:51–54. "Maize varieties such as PH1V5T are typically developed for use in the production of hybrid maize varieties. However, varieties such as PHIV5T also provide a source of breeding material that may be used to develop new maize inbred varieties." Ex. 1005, 28:31–35.

Based on these disclosures in Chifflet, we agree with Petitioner that a person of ordinary skill in the art would have understood that the parental

line PH1V5T can reasonably be used to arrive at other inbred maize lines. *See* Pet. 40. Petitioner, however, fails to demonstrate sufficiently how or why a person of ordinary skill in the art would have had a reasonable expectation of success in developing 1PFLQ21 specifically, when its other parent was not known in the art at the relevant time. Without "access to PH2F7K [the other parent] or knowledge of its genotypic and phenotypic characteristics" there is no reasonable expectation of success. Prelim Resp. 47 (citing Ex. 2004 ¶¶ 111, 117); Ex. 2004 ¶ 117 ("A POSA would have no reasonable expectation of success in developing 1PFLQ21 without understanding both the genotypic and phenotypic characteristics of both its parents, PH2F7K and PH1V5T. . . . [There is] no 'roadmap' to 1PFLQ21 based on the genotype and phenotype of PH1V5T alone"). Petitioner does not address how a person of ordinary skill in the art would have been able to produce the claimed seed, including its unique genotype, without having access to PH2F7K or its genomic and phenotypic information.

Furthermore, Patent Owner offers information suggesting that the creation "of 1PFLQ21 would have been unpredictable even if PH2F7K were known in the art." Prelim. Resp. 53; Ex. 2024 ¶ 118. Specifically, Dr. Schnable explains, there is unpredictability of the breeding process and

> [e]ach progeny of an F1 plant resulting from a cross of two inbreds is genetically and phenotypically distinct. A POSA would not expect that a cross of the same parents will produce the same child. The genome of a progeny plant is the result of the random recombination in the F1 plant of the two parental genomes and the chance of the exact same child resulting from that cross is infinitesimally small.

Ex. 2004 ¶ 118. This information further undermines Petitioner's arguments regarding an expectation of success in achieving the claimed invention,

especially considering Petitioner's arguments are based on a person of ordinary skill in the art only having information about one parent.

Petitioner urges us to follow *Ex parte C*, 27 USPQ2d 1492 (BPAI 1992). Pet. 40. We decline. We are not persuaded and agree with Patent Owner that *Ex parte C* can be distinguished from the facts in the present case. *See* Prelim Resp. 28; Sur-Reply 7. For example, "the claims [in *Ex parte C*] were rejected as obvious during prosecution" where both parental seed lines were known in the prior art. Sur-Reply 7; *see Ex parte C*, 27 USPQ2d 1492 (The new variety "was developed by appellant and is a cross between a commercial soybean known as X and a known variety available from Iowa State University and identified in the specification as 'Pella.'"). In addition, the examiner in *Ex. Parte C* explained that making the cross between the known plants would have provided resistance to root rot to the resultant plant, which would be a reason one of ordinary skill in the art would have desired to make the cross. *Id.* (stating "it is well known to breed root rot resistance into a plant by crossing the plant with other varieties having resistance to root rot."). In contrast, Petitioner has only identified one parent – PH1V5T – and has not articulated why one of ordinary skill in the art would cross PH1V5T with another inbred maize line in order to arrive at the genotype of 1PFLQ21. *See* Ex. 2004 ¶ 117 (There is "no 'roadmap' to 1PFLQ21 based on the genotype and phenotype of PH1V5T alone").

For all of the foregoing reasons, we determine Petitioner has not shown that it is more likely than not that claim 1 would have been obvious over the cited references.

b) Claim 2–20

Petitioner relies on the combination of Chifflet and PVPA certificate 201300302 to also challenge claims 2–20. Pet. 42–50.

Claims 2–9 depend from claim 1. Ex. 1001, 39:34–64. Nothing in Petitioner's analysis of these claims cures the deficiencies discussed above regarding Petitioner's analysis of claim 1. Therefore, for the same reasons discussed above for independent claim 1, we determine Petitioner has failed to show that it is more likely than not that claims 2–9 would have been obvious in view of Chifflet and PVPA certificate 201300302.

Claims 10 is an independent claim, reciting "[a]converted seed, plant, plant part or plant cell of inbred maize variety 1PFLQ21," with "fewer than six locus conversions" such that the plant or plant grown from seed

> comprises the physiological and morphological characteristics of maize variety 1PFLQ21 when grown under the same environmental conditions, and further wherein the fewer than six locus conversion confer a property selected from the group consisting of male sterility, a site for site specific recombination, abiotic stress tolerance, altered phosphate, altered antioxidants, altered fatty acids, altered essential amino acids, altered carbohydrates, herbicide tolerance, insect resistance and disease resistance.

Ex. 1001, 40:1–18. Claims 11–17 depend from claim 10.

Petitioner contends that claim 10 would have been obvious "the same reasons as claim 1 (concerning variety 1PFLQ21)" and because a person of ordinary skill in the art would have known that "locus conversions such as those recited in claim 10 were a routine technique to incorporate desirable traits into inbred maize lines." Pet. 57. Nothing in Petitioner's analysis of claims 10–17 cures the deficiencies discussed above regarding Petitioner's analysis of claim 1. Therefore, for the same reasons discussed above for independent claim 1, we determine Petitioner has failed to show that it is more likely than not that claims 10–17 would have been obvious in view of Chifflet and PVPA certificate 201300302.

Claim 18 is an independent claim that recites "an F1 hybrid seed produced by crossing a plant or plant part of 1PFLQ21 . . . with a different maize plant," and also requires that "1PFLQ21 further comprises a transgene and otherwise comprises all of the physiological and morphological characteristics of maize variety 1PFLQ21 when grown under the same environmental conditions, wherein the transgene is inherited by the F1 hybrid seed;" and the transgene be incorporated by "backcrossing or genetic transformation." Ex. 1001, 40:44–56. Claims 19 and 20 depend from claim 18.

Petitioner contends claim 18 would have been obvious for the same reasons as claims 3 and 10. Pet. 49. Nothing in Petitioner's analysis of claim 18, however, cures the deficiencies discussed above regarding Petitioner's analysis of claim 1, 3, or 10. Therefore, for the same reasons discussed above for independent claims 1, 3, and 10, we determine Petitioner has failed to show that it is more likely than not that claims 18–20 would have been obvious in view of Chifflet and PVPA certificate 201300302.

5. Summary

In sum, we determine that Petitioner has not demonstrated that it is more likely than not that claims 1–20 would have been obvious over the combination of Chifflet and PVPA certificate 201300302.

D. Claims 1–20: Alleged Obviousness over Smalley (Ex. 1006) and PVPA certificate 201000366 (Ex. 1009)

We have reviewed the parties' arguments and supporting evidence with respect to claims 1–20. We determine that Petitioner has not shown it is more likely than not that claims 1–20 would have been obvious in view of Smalley and PVPA certificate 201000366. *See* Pet. 50–58. We begin with a review of the relevant references and then address the parties' contentions.

1. Prior Art

a) Overview of Smalley (Ex. 1006)

Smalley is U.S. Patent No. 8,466,351 B1 assigned to Pioneer Hi-Bred International, Inc. and titled "Inbred Maize Variety PH18KJ." Ex. 1006, codes (54), (73). Smalley describes that inbred maize variety PH18KJ was developed by crossing "PH8JR" and "PHB1V," selfing the resulting F1 plants and "using ear-to-row (pedigree) selection from the F3 to F8 generation." *Id.* at 12:35–54. The inbred line is "substantially homozygous." *Id.* at 12:58. A deposit "of at least 2500 seeds of Maize Variety PH18KJ" was made "with the American Type Culture Collection (ATCC) . . . with ATCC Deposit No. PTA-13147." *Id.* at 36:20–23.

Smalley's Table 1 contains a description of some of the variety's phenotypic characteristics. *Id.* at 33:1–34:67. Smalley's Table 2 contains a "general combining ability report" (*id.* at 15:66–16:14), and Table 3 "compare[s] a specific hybrid for which PH18KJ is a parent with other hybrids" (*id.* at 16:15–26).

b) Overview of PVPA certificate 201000366 (Ex. 1009)

PVPA certificate 201000366 is the Plant Variety Protection Certificate for inbred maize variety PH18KJ. Ex. 1009. PVPA certificate 201000366 describes that PH18KJ "mostly resembles" inbred line PH24E. *Id. at* 6. PVPA certificate 201000366 discloses that inbred maize variety PH18KJ possesses "a wider cob diameter," "shorter ear length," and "more leaves above top ear" than inbred line PH24E. *Id*.

2. Petitioner's Contentions

Petitioner contends that "Smalley and the corresponding PVPA Certificate disclose PH18KJ—a prior art inbred variety with properties very

similar to those of the 1PFLQ21 variety claimed in the '803 Patent." Pet. 50. Petitioner contends that "PH18KJ was previously used as one of the parents for other maize varieties—including an inbred line disclosed in indisputable prior art." Pet. 51 (citing Ex. 1097, 18:59–61; Riley ¶ 133). "1PFLQ21's disclosed characteristics are highly similar to PH18KJ's as disclosed in Smalley." *Id.* "[T]he Examiner cited Smalley and acknowledged that 1PFLQ21 and PH18KJ were 'somewhat similar in phenotype'" but reasoned that 1PFLQ21 and PH18KJ can be distinguished based on "anther color and brace root anthocyanin." *Id.* at 52 (citing Ex. 1002, 105). Petitioner contends that "[t]he color of such structure is immaterial to maize's practical utility." *Id.* at 54 (citing Ex. 1003 ¶139).

3. Patent Owner's Contentions

Patent Owner opposes. Patent Owner contends that "the asserted prior art maize variety disclosed by Smalley, PH18KJ, is unrelated to the claimed 1PFLQ21 variety." Prelim. Resp. 56. Patent Owner contends that the question is not whether a person of ordinary skill in the art can use PH18KJ as a parent, the question is whether a person of ordinary skill in the art would be motivated to modify PH18KJ to create 1PFLQ21. *Id.*

4. Analysis

Based upon our review of the arguments and evidence, we find that Petitioner has not shown it is more likely than not that the claims are obvious over the cited references.

a) Claim 1

Claim 1 is directed to "[a] seed, plant, plant part, or plant cell of inbred maize variety 1PFLQ21, representative seed of the variety having been deposited under NCMA accession number 202212046." Ex. 1001, 39:31–33. The claim is directed to an inbred maize variety 1PFLQ21 and

encompasses both the genotype and phenotype associated with that particular seed.

Smalley explains that "[a]n important consequence of the homozygosity and homogeneity of the inbred variety is that the hybrid between a defined pair of inbreds may be reproduced indefinitely as long as the homogeneity of the inbred parents is maintained." Ex. 1005, 14:29–33. According to Smalley, the inbred maize variety "PH18KJ may be used to produce hybrid maize. One such embodiment is the method of crossing maize variety PHI8KJ with another maize plant, such as a different maize variety, to form a first generation F1 hybrid seed." Ex. 1005, 15:4–7. "Maize varieties such as PH18KJ are typically developed for use in the production of hybrid maize varieties. However, varieties such as PH18KJ also provide a source of breeding material that may be used to develop new maize inbred varieties." Ex. 1006, 28:53–57. PH18KJ, a yellow corn inbred was developed from the single cross hybrid PH8JR (PVP Certificate No. 200400191) and PHBIV (PVP Certificate No. 200400201). Ex. 1009, 5; *see* Ex. 1006, 12:35–47.

Based on these disclosures in Smalley, we agree with Petitioner that the hybrid maize line PH18KJ can reasonably be used to arrive at other inbred lines. *See* Pet. 50. What is missing in the Petition, however, is a reason why one of ordinary skill in the art would start with the PH18KJ parent and then randomly make crosses with other inbred maize lines to ultimately arrive at the claimed inbred maize line 1PFLQ21. In other words, just because the PH18KJ line can be used to create other hybrid maize lines does not explain how or why one of ordinary skill in the art would ultimately arrive at the genotype of the inbred maize line 1PFLQ21.

Specifically, Petitioner fails to demonstrate sufficiently how a person of ordinary skill in the art would have had a reasonable expectation of success in developing 1PFLQ21 given that PH18KJ is not a parent of 1PFLQ21. 1PFLQ21's genome is derived from its parents (Ex. 2004 ¶ 117), and Petitioner does not address sufficiently how a person of ordinary skill in the art would have been able to produce the claimed seed, including its unique genotype, from varieties other than PH1V5T and PH2F7K.

Additionally, for reasons similar to those discussed above (II.C.4.a), we again determine the facts in *Ex parte C* are distinguishable from the facts in the present proceeding.

For all of the foregoing reasons, we determine Petitioner has not shown it is more likely than not that claim 1 would have been obvious over Smalley and PVPA certificate 201000366.

b) Claims 2–20

Petitioner relies on the combination of Smalley and PVPA certificate 201000366 to also challenge claims 2–20. Pet. 55–58. For the same reason discussed above with respect to claim 1, we determine that Petitioner has not demonstrated it is more likely than not that claims 2–20 are unpatentable as obvious.

5. Summary

In sum, we determine that Petitioner has not demonstrated it is more likely than not that claims 1–20 would have been obvious over the combination of Smalley and PVPA certificate 201000366.

E. Claims 1–20: Alleged Obviousness over Gadlage (Ex. 1007)

We have reviewed the parties' arguments and supporting evidence with respect to claims 1–20. We determine that Petitioner has not shown it is

more likely than not that claims 1–20 would have been obvious in view of Gadlage. *See* Pet. 58–63. We begin with a review of the relevant reference and then address the parties' contentions.

1. Prior Art

a) Overview of Gadlage (Ex. 1007)

Gadlage is U.S. Patent No. 10,405,509 B1 assigned to Pioneer Hi-Bred International, Inc. and titled "Maize Inbred PH2SNA." Ex. 1007, codes (54), (73). Gadlage describes that inbred maize variety PH2SNA was developed by crossing "inbred line PH18FN and inbred line PHRDW," "producing a doubled haploid from the F1 plants, selfing and using pedigree selection amongst the D1 lines, and selfing and bulking from the subsequent generations." *Id.* at 42:54–61. The inbred line is "substantially homozygous." *Id.* at 42:62. A deposit "of at least 2,500 seeds of Maize Variety PH2SNA" was made "with the American Type Culture Collection (ATCC) . . . with ATCC Deposit No. PTA-121809." *Id.* at 42:26–30.

Gadlage's Table 1 contains a description of some of the variety's phenotypic characteristics. *Id.* at 43:1–45:9.

2. Petitioner's Contentions

Petitioner contends that "Gadlage discloses PH2SNA—a prior art inbred variety with properties very similar to those of the 1PFLQ21 variety claimed in the '803 Patent." Pet. 58. Petitioner contends that "Gadlage discloses that PH2SNA maize hybrid can be used '[t]o Develop Another Maize Plant' and in particular is a 'source of breeding material that may be used to develop new maize inbred varieties.'" Pet. 58 (citing Ex. 1007, 36:31-35). "1PFLQ21's disclosed characteristics are highly similar to PH2SNA's as disclosed in Gadlage." Pet. 59.

3. Patent Owner's Contentions

Patent Owner opposes. Prelim. Resp. 35–41; 59–61. Patent Owner contends that "Petitioner ignores the genotypes of the PH2SNA and 1PFLQ21 in determining the two varieties are insignificantly different." Prelim Resp. 60. Specifically, PH2SNA and 1PFLQ21 are "very different" genotypically. *Id.* (citing Ex. 2004 ¶¶ 154-155; Ex. 2027; Ex. 2028).

4. Analysis

Based upon our review of the arguments and evidence, we find that Petitioner has not shown it is more likely than not that the claims are obvious over the cited references.

a) Claim 1

Claim 1 is directed to "[a] seed, plant, plant part, or plant cell of inbred maize variety 1PFLQ21, representative seed of the variety having been deposited under NCMA accession number 202212046." Ex. 1001, 39:31–33. The claim is directed to an inbred maize variety 1PFLQ21 and encompasses both the genotype and phenotype associated with that particular seed.

Gadlage explains that "[a] consequence of the homozygosity and homogeneity of the inbred variety is that the hybrid between a defined pair of inbreds may be reproduced indefinitely as long as the homogeneity of the inbred parents is maintained." Ex. 1007, 22: 43–46. According to Gadlage, the inbred maize variety "PH2SNA may be used to produce hybrid maize. One such embodiment is the method of crossing maize variety PH2SNA with another maize plant, such as a different maize variety, to form a first generation Fl hybrid seed." Ex. 1007, 22:16–19. "Maize varieties such as PH2SNA are typically developed for use in the production of hybrid maize varieties. However, varieties such as PH2SNA also provide a source of

breeding material that may be used to develop new maize inbred varieties." Ex. 1007, 36:32–36.

Based on these disclosures in Gadlage, we agree with Petitioner that the parental line PH2SNA can reasonably be used to arrive at other inbred lines. *See* Pet. 58. What is missing in the Petition, however, is a reason why one of ordinary skill in the art would start with the PH2SNA parent and then randomly make crosses with other inbred maize lines to ultimately arrive at the claimed inbred maize line 1PFLQ21. In other words, just because the PH2SNA line can be used to create other hybrid maize lines does not explain how or why one of ordinary skill in the art would ultimately arrive at the genotype of the inbred maize line 1PFLQ21.

Specifically, Petitioner fails to demonstrate sufficiently how a person of ordinary skill in the art would have had a reasonable expectation of success in developing 1PFLQ21 given that PH2SNA is not a parent of 1PFLQ21. 1PFLQ21's genome is derived from its parents (Ex. 2004 ¶ 117), and Petitioner does not address sufficiently how a person of ordinary skill in the art would have been able to produce the claimed seed, including its unique genotype, from varieties other than PH1V5T and PH2F7K.

Additionally, for reasons similar to those discussed above (II.C.4.a), we again determine the facts in *Ex parte C* are distinguishable from the facts in the present proceeding.

For all of the foregoing reasons, we determine Petitioner has not shown it is more likely than not that claim 1 would have been obvious over Gadlage.

b) Claims 2–20

Petitioner relies on Gadlage to also challenge claims 2–20. Pet. 60–63. For the same reason discussed above with respect to claim 1, we determine

that Petitioner has not demonstrated it is more likely than not that claims 2–20 are unpatentable as obvious.

5. Summary

In sum, we determine that Petitioner has not demonstrated it is more likely than not that claims 1–20 would have been obvious over Gadlage.

F. Alleged Lack of Utility under 35 U.S.C. § 101 of Claims 1–20

Petitioner contends that claims 1–20 of the '803 patent are unpatentable because "the claimed invention 'lacks a specific and substantial utility' as required by §101." Pet. 63. According to Petitioner, "[n]othing in the specification of this particular patent establishes that claims 1–20 are a 'useful improvement' over earlier corn varieties." Pet. 64 (emphasis omitted); *see also* Pet. 65–66 ("Nothing in the record suggest any utility specific to the 1PFLQ21 variety itself beyond that generic to any species of corn."). Petitioner also argues that nothing in the '803 patent suggests any reason why the claimed variety has "markedly different characteristics" and "corresponding 'significant utility'" as compared to naturally occurring, preexisting corn varieties. Pet. 67 (citing *In re Roslin Institute (Edinburgh)*, 750 F.3d 1333, 1336 (Fed. Cir. 2014)).

Patent Owner disputes Petitioner's contentions, arguing that Petitioner "invites the Board to create a new utility standard exclusive to plant utility patents," and also "conflates the law of patent eligibility with the law of utility." Prelim. Resp. 61. According to Patent Owner, "[u]nder the proper test, the '803 patent easily meets the utility requirement." Prelim. Resp. 61.

After considering the parties' arguments and information presented at this stage of the proceeding, we agree with Patent Owner that the '803 patent satisfies the utility requirement of 35 U.S.C. § 101.

Under § 101, "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor." 35 U.S.C. § 101. Thus, contrary to Petitioner's argument, compliance with the utility requirement of § 101 does not require showing a "useful improvement" over existing subject matter. Rather, as the Federal Circuit explained, "a patent has utility if the alleged invention is capable of providing some identifiable benefit presently available to the public." *Grunenthal GMBH v. Alkem Lab'ys Ltd*., 919 F.3d 1333, 1345 (Fed. Cir. 2019), *see also id.* ("[A] patent must have specific and substantial utility. . . . The substantial requirement, also known as 'practical utility,' is satisfied when 'the claimed invention has a significant and presently available benefit to the public.'" (citing *In re Fisher*, 421 F.3d 1365, 1371 (Fed. Cir. 2005)). Additionally, the court explained that "[a] patent fails to satisfy the utility requirement under 35 U.S.C. § 101 only if the invention is 'totally incapable of achieving a useful result.'" *Id*.

The '803 patent lists several uses for the claimed subject matter sufficient to satisfy the utility requirement of Section 101. For example, the '803 patent contains a section titled "INDUSTRIAL APPLICABILITY," which states:

> Examples of maize grain or plant material as a commodity plant product include, but are not limited to, oils, meals, flour, starches, syrups, proteins, cellulose, silage, and sugars. Maize grain is used as human food, livestock feed, and as raw material in industry. The food uses of maize, in addition to human consumption of maize kernels, include both products of dry- and wet-milling industries. The principal products of maize dry milling are grits,

> meal and flour. The maize wet-milling industry can provide maize starch, maize syrups, and dextrose for food use.

Ex. 1001, 36:27–36.

These recitations constitute "identifiable benefit[s] presently available to the public," sufficient to satisfy the utility requirement of § 101. *Grunenthal*, 919 F.3d at 1345. They also distinguish the facts here from those in the cases, such as *In re Fisher*, 421 F.3d 1365, 1371 (Fed. Cir. 2005), Petitioner relies upon to support its contentions. *See* Pet. 63–68. For example, in *Fisher* the Federal Circuit determined that the asserted uses of the claimed invention were "merely hypothetical possibilities," and there was no evidence of actual use in the real world. *Fisher,* 421 F.3d at 1373. The court also determined that the claimed invention was "not an end of [the inventor's] research effort, but only [a] tool[] to be used along the way in the search for a practical utility. *Id*. at 1377.

Here, in contrast, the '803 patent identifies specific, real-world uses for the claimed invention. Thus, unlike the patent in *Fisher*, the '803 patent disclosure demonstrates that its invention "has a significant and presently available benefit to the public" and discloses "a use which is not so vague as to be meaningless." *Id*. at 1371. Thus, the '803 patent discloses, respectively, both a "substantial and specific utility" to satisfy § 101. *Id*.; *see* Pet. 63–66 (arguing, in view of *Fisher*, that § 101 compliance requires showing a "substantial" and "specific" utility).

We turn next to Petitioner's argument that claims 1–20 lack "substantial utility" because nothing in the '803 patent suggests any reason why the claimed variety has "markedly different characteristics" as compared to naturally occurring, preexisting corn varieties. Pet. 66–68. We agree with Patent Owner that this argument conflates the issue of patent

eligible subject matter with the utility requirement under § 101. Prelim. Resp. 61.

The language Petitioner relies upon comes from the Supreme Court decision in *Diamond v. Chakrabarty*, where the Court addressed the question of whether living organisms constitute a "manufacture" or "composition of matter" under § 101. *Chakrabarty*, 447 U.S. at 307. There, the Court determined that living organisms can constitute patentable subject matter if they have "markedly different characteristics from any found in nature." *Id*. at 310. Petitioner has not directed us to persuasive evidence or authority demonstrating that the holding in *Chakrabarty* applies to the question of whether the claimed variety satisfies the utility requirement of § 101. To the contrary, the two cases Petitioner cites in the Petition, *In re Roslin Institute (Edinburgh)*, 750 F.3d 1333, 1336 (Fed. Cir. 2014) and *Ex parte Uchiyama*, Appeal No. 2017-005387, 2018 WL 1378136, at *4 (PTAB Mar. 12, 2018), addressed rejections under § 101 regarding patentable subject matter, not utility.

For all of the above reasons, we find that Petitioner has not shown that it is more likely than not that the challenged claims are unpatentable for failing to satisfy the utility requirement of § 101.

G. Institution of Post-Grant Review under § 324(b)

Petitioner contends that "institution can and should be granted under §324(b) for the separate and independent reason that the petition raises a 'novel or unsettled legal question.'" Pet. 11. According to Petitioner, the legal question is:

> Whether plant utility patent claims should be found unpatentable for lack of specific utility if the specification lacks any distinct statement concerning one or more specific benefits of the claimed plant as compared to known varieties?

Pet. 11; *see also id*. at 69–76. Requiring a specific statement concerning benefits of the claimed plant variety would provide clear rules for examiners enabling them to apply longstanding precedent concerning the specific utility requirement under §101. *Id.* at 71. There is no basis for awarding a utility patent based merely on speculation that a particular disclosed inbred variety "may be used to produce hybrid" plants absent evidence that a particular hybrid actually has desirable properties. *Id.* at 72. Petitioner contends that plant breeders "need to identify a specific benefit in the form of breeding at least one hybrid with substantial utility." *Id.* Petitioner contends that Patent Owner "failed to include any such comparative data or particularized analysis in the '803 Patent distinguishing the claimed 1PFLQ21 variety over other corn varieties." *Id.* at 76.

Patent Owner disputes Petitioner's contentions. Prelim. Resp. 71–80. Patent Owner contends that "the 'novel or unsettled legal question' of §324(b) must relate to the conditions for patentability under [35 U.S.C,] § 282(b)(2)–(3)." Prelim. Resp. 74. Specifically, Patent Owner contends that Petitioner's questions at best concern a matter of patent examination process or policy not within the proper scope of post-grant review under the AIA. Prelim. Resp. 72, 76. "It is well settled that questions about the patent examination process and policy belong to the Director—not the Board." *Id.* at 76 (citing 35 U.S.C. § 3(2)(A)).

We agree with Patent Owner that Petitioner's question represents a matter of patent examination process or policy. Prelim. Resp. 71–76. Even Petitioner concedes that the question relates to "enhance patent examination quality of the patent examination process for innovations related to agricultural products" and also "enhance the transparency of IP information" for such innovations. Pet. 69–70 (citing Ex. 1018).

It is the Director, however, not the Board, who is "responsible for providing policy direction and management supervision for the Office and for the issuance of patents." 35 U.S.C. § 3(2)(A). Accordingly, a post-grant review proceeding is not the proper vehicle for Petitioner's request. *See In re Searles*, 422 F.2d 431, 435 (C.C.P.A. 1970) ("The examiner's rulings dealing with procedural matters . . . are reviewable upon petition" to the Director, not the Board).

In view of the foregoing, the Petition does not raise a novel or unsettled legal question warranting institution of a post-grant review proceeding under 35 U.S.C. §324(b).

H. Discretionary Denial Under § 325(d)

In view of our determination to deny institution on the merits, we do not need to address the parties' arguments regarding discretionary denial.

III. CONCLUSION

Taking account of the information presented in the Petition, the Preliminary Response and the evidence of record, we determine that Petitioner has not met its burden under 35 U.S.C. § 324(a) and deny institution of post-grant review. Accordingly, the Petition is denied, and no trial is instituted.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that *inter partes* review of claims 1-20 of U.S. Patent No. 11,659,803 is *denied* with respect to all grounds of unpatentability set forth in the Petition, and no trial is instituted.

PETITIONER:

Scott A. McKeown
Oona M. Johnstone
Thomas F. Foley
Zhiyun Ge
WOLF, GREENFIELD & SACKS, P.C.
smckeown-ptab@wolfgreenfield.com
ojohnstone-ptab@wolfgreenfield.com
tfoley-ptab@wolfgreenfield.com
jean.ge@wolfgreenfield.com

For PATENT OWNER:

Michael Kane
Katie E. Hyma
Dexter Whitley
Yong (Lucien) Wang
Jonathan Singer
FISH & RICHARDSON P.C.
kane@fr.com
hyma@fr.com
PGR58032-0003PS1@fr.com

CERTIFICATE OF COMPLIANCE

I, Scott McKeown, counsel for Petitioner, certify that the foregoing petition complies with the type-volume limitation set forth in Fed. R. App. P. 21(d)(1). Specifically, this petition contains 7796 words as determined by the word count feature of the word processing program used to create this brief.

I further certify that the foregoing brief complies with the typeface requirements set forth in Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6). Specifically, this brief has been prepared using a proportionally spaced typeface using Microsoft Word 365, in 14-point Times New Roman font.

Date: September 4, 2025

/s/ Scott A. McKeown

Scott A. McKeown
WOLF GREENFIELD & SACKS, P.C.
601 Massachusetts Avenue, NW
Washington, DC 20001
Telephone: (202) 389-6025
smckeown@wolfgreenfield.com

Counsel for Petitioner

CERTIFICATE OF SERVICE AND FILING

I hereby certify that a true and correct copy of the foregoing **Petition for a Writ of Mandamus** has been electronically filed with the Clerk of Court on September 4, 2025 using the CM/ECF system.

I further certify that this document was sent by U.S.P.S. Express Mail on September 4, 2025 to lead counsel for Pioneer Hi-Bred International, Inc. at the following address:

Michael Kane
Fish & Richardson P.C.
60 South Sixth Street, Suite 3200
Minneapolis, MN 55402

I further certify that courtesy copies of this document were sent to counsel above (Michael Kane) and the following additional counsel of record for Pioneer Hi-Bred International, Inc., on September 4, 2025:

Katie E. Hyma
Dexter Whitley
Jonathan Singer
PGR58032-0003PS1@fr.com

I further certify that this document was sent to efileSO@uspto.gov and also by U.S.P.S. Express Mail to the following address on September 4, 2025:

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/s/ Scott A. McKeown

Scott A. McKeown
WOLF GREENFIELD & SACKS, P.C.
601 Massachusetts Avenue, NW
Washington, DC 20001
Telephone: (202) 389-6025
smckeown@wolfgreenfield.com

Counsel for Petitioner