

No. 17-1032

**In the United States Court of Appeals
for the Federal Circuit**

MONSANTO TECHNOLOGY LLC,
APPELLANT,

v.

E.I. DUPONT DE NEMOURS & COMPANY,
CROSS-APPELLANT

*ON APPEAL FROM THE PATENT AND TRADEMARK APPEAL BOARD IN
REEXAMINATION NO. 95/002,028*

**COMBINED PETITION FOR
PANEL REHEARING OR REHEARING EN BANC**

JAMES M. HILMERT
Winston & Strawn LLP
35 West Wacker Drive
Chicago, Illinois 60601
(312) 558-5600
jhilmert@winston.com

*Counsel for Appellant Monsanto
Technology LLC*

CERTIFICATE OF INTEREST

Pursuant to Circuit Rule 47.4, undersigned counsel for Appellant,

Monsanto Technology, LLC certifies the following:

1. The full name of every party or amicus represented by us is: Monsanto Technology, LLC.
2. The name of the real party in interest (please only include any real party in interest NOT identified in Question 3) represented by us is: None.
3. All parent corporations and any publicly held companies that own 10% or more of the stock of any party represented by us are: Monsanto Company.
4. The names of all law firms and the partners or associates that appeared for the parties now represented by us in the trial court or expected to appear in this court are: From Winston & Strawn LLP: James M. Hilmert; From Dentons US LLP: Robert E. Hanson; From Thompson Coburn LLP: Charles P. Romano (patent agent)
5. The title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal:

In the matter of: Reexamination of U.S. 7,943,818, No. 95/000,690, pending in the USPTO, may be affected by the outcome of this appeal.

Dated: February 5, 2018

/s/ James M. Hilmert
James M. Hilmert
Counsel for Appellant

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CIRCUIT RULE 35(b) STATEMENT

A. Based on my professional judgment, I believe the panel decision is contrary to the following decisions of the Supreme Court and this Court:

Eibel Process Co. v. Minnesota & Ontario Paper Co., 261 U.S. 45 (1923)

Millennium Pharm., Inc. v. Sandoz Inc., 862 F.3d 1356 (Fed. Cir. 2017)

Agilent Techs., Inc. v. Affymetrix, Inc., 567 F.3d 1366 (Fed. Cir. 2009)

Continental Can Co. v. Monsanto Co., 948 F.2d 1264 (Fed. Cir. 1991)

In re Baxter Travenol Labs., 952 F.2d 388, 390 (Fed. Cir. 1991)

B. Based on my professional judgment, I believe this appeal requires an answer to the following precedent-setting question of exceptional importance:

For purposes of anticipation or obviousness, does the law require a showing that a POSA would be capable of recognizing an allegedly inherent feature from the teachings of the prior art?

Dated: February 5, 2018

/s/ James M. Hilmert
James M. Hilmert
Counsel for Appellant

INTRODUCTION

This Court has long stated that proof of inherency requires “the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be *so recognized by persons of ordinary skill.*” *Continental Can Co. USA, Inc., v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991) (emphasis added). This Court reaffirmed the recognition requirement last year, in the context of both anticipation, *see HTC Corp. v. Cellular Commc’ns Equip., LLC*, 877 F.3d 1361, 1368 (Fed. Cir. 2017) (restating this standard), and obviousness, *see Millennium Pharm., Inc. v. Sandoz Inc.*, 862 F.3d 1356, 1367 (Fed. Cir. 2017) (requiring proof that a POSA “foresaw, or expected” the alleged inherent feature from the prior art’s teachings).

The present decision, however, discarded this requirement. A panel of this Court held that wholly confidential data omitted from the disclosure of a prior art patent—and unavailable to a POSA—could be used to “explain” that patent’s disclosure to prove inherency. Because “contemporaneous recognition” is not required for inherency under *Schering Corp. v. Geneva Pharm., Inc.*, 339 F.3d 1373, 1380 (Fed. Cir. 2003), the panel reasoned, Op. at 16, confidential data introduced via declaration in a litigation could show the claimed subject matter was “necessarily” present in the prior art. Op. at 15. The panel thus found

inherent anticipation and obviousness despite the fact that an allegedly inherent feature was incapable of being recognized by a POSA from the prior art.

This decision is contrary to the patent code, which requires patentability be based on the prior art, 35 U.S.C. §§ 102-103, as well as other precedent requiring an allegedly inherent feature be recognizable from the teachings of the prior art reference. *E.g.*, *HTC Corp.*, 877 F.3d at 1368; *Millenium Pharm.*, 862 F.3d at 1367; *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999); *Cont'l Can*, 948 F.2d at 1268. It further conflicts with precedent that limits the use of extrinsic evidence to explain information known to a POSA from the teachings of the prior art. *E.g.*, *In re Baxter Travenol Labs.*, 952 F.2d 388, 390 (Fed. Cir. 1991). The significant conflict between these decisions warrants *en banc* review.

Schering should be clarified. *Schering* did not, and could not, abrogate the requirement that a POSA recognize the claimed inherent feature from the prior art. Properly interpreted, *Schering* simply holds that the evidence of recognition need not itself be prior art, so long as the basis for that recognition comes *from* the prior art. 339 F.3d at 1377. Regardless of one's interpretation of *Schering*, however, there is a substantial decisional conflict between the present case and this Court's inherency opinions warranting clarification. The Court should take the opportunity to address this important issue of patent law for the first time in an *en banc* setting.

STATEMENT OF THE CASE

Monsanto's rejected patent claims are directed to methods of breeding transgenic soybeans to obtain altered fatty acid compositions. The inventors identified a desirable fatty acid profile for soybean oil, and invented methods to obtain transgenic soybean seeds with that profile, which are broadly useful in food products and for industrial purposes. Appx042, 1:54-57; Appx043, 3:50-55. The claims require two steps: first, crossing (*i.e.*, sexually reproducing) genetically modified soybean lines having particular characteristics, and second, obtaining progeny plants containing the altered fatty acid profiles in various weight percentages. Appx329-334.

DuPont filed a request for *inter partes* reexamination of the '953 patent pursuant to the pre-AIA provisions of 35 U.S.C. §§ 311-314, basing its invalidity arguments on a single prior art patent ("Booth") that DuPont owned. Appx276, Appx133-145. Booth's relevant example (Example 8) consists of one paragraph about crossing soybean lines with alternative characteristics, Appx123 at 25:48-51, and one table describing the resulting fatty acid profiles (Table 12). The PTO determined that Booth's alternative crossing scheme fell within the scope of the first step of Monsanto's claims. However, Booth did not disclose the second step of obtaining the claimed progeny plants. Every data point presented in Booth's

table fell outside the scope of the second step for all of the claims. Appx7-Appx8; Appx123; Appx320 ¶17, Appx323, ¶¶11-14.

To make out a case for “anticipation” and “obviousness,” DuPont submitted extrinsic declarations from a scientist (Dr. Kinney) involved with developing Booth’s examples. Rather than explain Booth, Kinney’s second declaration attached a spreadsheet listing the fatty acid profile of 242 soybeans that DuPont allegedly obtained, but in relevant part *omitted*, from Booth’s Table 12. Appx360, ¶8 & n.1. Kinney presented no evidence that any of this data—or the soybeans themselves—would have been available to a POSA in the prior art. Kinney made no claim that the data reflected the “necessary” or the “inevitable” result of any process disclosed in the Booth patent. Appx359-362.

Nevertheless, the PTO (Board and Examiner) relied on the confidential data in Kinney’s declaration to reject Monsanto’s claims for anticipation and obviousness. Appx009, Appx013-015. The PTO found that a handful of the soybeans in Kinney’s spreadsheet had the fatty acid profile claimed in step 2 of Monsanto’s claims—although none of that information was included in Booth. Appx013-015. Treating the confidential data as if it had been conceptually stapled to the Booth patent, the Examiner and Board held that this data “evidenced” anticipation for all but one of the claims on appeal. Appx013, Appx015-Appx016.

For the remaining dependent claim, the PTO found obviousness because a single soybean among Kinney's 242 soybeans met the claimed profile. Appx016-018.

In affirming the PTO's rejections, the panel likewise relied on the confidential data described in the Kinney declaration. Op. at 15. The panel held that the confidential information did not "expand the meaning of Booth or serve as prior art" even though the data points in Kinney's spreadsheet appeared nowhere in Booth. Op. at 15.

In reaching its conclusion, the panel did not acknowledge any requirement that a POSA be able to recognize the claimed inherent feature from the disclosure of the prior art. Rather, citing *Schering*, the panel stated that "extrinsic evidence need not antedate the critical date of the patent at issue, nor have contemporaneous recognition by a PHOSITA." Op. at 16 (internal citations omitted). The panel held that the requirements of inherency could be met because the confidential information was subsequently made public in a declaration submitted in this litigation, and thus, "not secretive for purposes of the lower proceeding." *Id.*

POINTS OF LAW MISAPPREHENDED BY THE PANEL

The panel failed to appreciate that the law of inherency requires that the allegedly inherent feature be capable of recognition by a POSA from the teachings of the prior art, and that a declaration describing confidential information omitted

from the prior art's teachings is inadmissible to prove inherency. Monsanto also submits that the panel misapprehended the facts discussed below in footnote 1.

REASONS FOR GRANTING PANEL OR EN BANC REHEARING

I. The decision conflicts with precedent requiring that an inherent feature be recognizable from the teachings of the prior art.

The panel decision—which observes no requirement for a POSA to recognize a claimed inherent feature—conflicts with the patent code and a substantial number of cases from this Court, decided before and after *Schering*.

A. Proof of inherency requires a showing that a POSA is capable of recognizing the allegedly inherent feature from the teachings of the prior art.

“The very essence of inherency is that one of ordinary skill in the art would recognize that a reference unavoidably teaches the property in question.” *Agilent Techs., Inc. v. Affymetrix, Inc.*, 567 F.3d 1366, 1383 (Fed. Cir. 2009). Thus, to establish inherency, the extrinsic evidence “must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be *so recognized* by persons of ordinary skill.” *In re Robertson*, 169 F.3d at 745 (emphasis added) (quoting *Continental Can Co.*, 948 F.2d at 1268); *accord HTC Corp.* 877 F.3d at 1368; *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1328 (Fed. Cir. 2001). This recognition requirement stems from the requirements of 35 U.S.C. §§ 102-103 that patentability be based on the prior art, and reflects Supreme Court precedent that “accidental results, not

intended and *not appreciated*, do not constitute anticipation.” *Eibel Process Co. v. Minnesota & Ontario Paper Co.*, 261 U.S. 45, 66 (1923) (emphasis added).

Historically, cases addressing inherency have fallen into two general categories, both of which require the inherent characteristic be recognizable from the prior art. The first category involves situations where a prior art reference describes a tangible thing but fails to identify its properties. *E.g.*, *In re Baxter Travenol Labs.*, 952 F.2d at 390. In this circumstance, this Court has authorized the use of extrinsic evidence to show that a POSA would recognize that the description of the prior art “necessarily” included a claimed feature. However, the evidence can only “explain, but not expand, the meaning of a reference” to a POSA as of the priority date. *Id.* at 390. Thus, by definition, the extrinsic evidence must be based on the teachings of the prior art.

Baxter, cited by the panel, held that extrinsic evidence could show “what materials Baxter’s commercial bags contained *at the time of* the Becker document, thereby explaining what the phrase ‘[Baxter] Travenol’s commercial, two blood bag container’ would have meant to one skilled in the art.” *Id.* at 390-91 (emphasis added). *Ciba-Geigy Corp. v. Alza Corp.*, cited by the panel, limited the use of extrinsic evidence to “shed light on what it would have meant to those skilled in the art at the time of the invention,” and held a declaration did “not go beyond explaining what the Fox reference would have *meant to those skilled in the art in*

1984.” 68 F.3d 487 (Fed. Cir. 1995) (Table) (emphasis added). *Telemac*, also cited by the panel, Op. at 16, affirmed the recognition requirement and applied it in the same way. 247 F.3d at 1328 (“The evidence must make clear that the missing feature is necessarily present, and that it would be so recognized by persons of ordinary skill in the relevant art.”); *id.* at 1329-30 (holding, “it is evident that *as of the time the application ...* was filed a Call Detail Record necessarily included information regarding the rates for the claimed call categories.”) (emphasis added).

Other cases likewise require the extrinsic evidence be tied to the knowledge of a POSA based on the prior art. In *Studiengesellschaft Kohle, m.b.H. v. Dart Indus., Inc.*, for instance, the Court rejected an argument for inherency where the extrinsic evidence was cited for “a very specific teaching,” and “not for any light they shed on what Fischer would have *meant to those skilled in the art in his day.*” 726 F.2d 724, 727 (Fed. Cir. 1984) (emphasis added). In sum, extrinsic evidence used to identify the properties of a tangible object in the prior art must explain the prior art and go no further.

In the other general category of cases, the prior art sets forth a process that, when performed in the manner described in the prior art, inevitably leads to a particular claimed feature or result. In such a case, “[t]he inherent result must *inevitably* result from the *disclosed* steps” *In re Montgomery*, 677 F.3d 1375, 1380 (Fed. Cir. 2012) (emphasis added); *see Glaxo Inc. v. Novopharm Ltd.*, 52

F.3d 1043,1047 (Fed. Cir. 1995) (finding polymorph not inherently anticipated where prior art method did not inevitably lead to its production). In these cases, the result is an intrinsic property of the prior art, because it is derived inevitably by anyone of skill performing the prior-art's disclosure.

Schering, for example, involved the prior-art disclosure of a particular compound for administration to a person, the inevitable consequence of which involved the formation of a metabolite. 339 F.3d at 1377. This Court held that the inevitable formation of the metabolite upon administration barred a subsequent claim to the metabolite. The Court explained that “recognition by a person of ordinary skill in the art before the critical date of the ’716 patent is not required to show anticipation by inherency,” but rather, in such a circumstance, “allowing for *later recognition* of the inherent characteristics of the prior art ’233 patent” was sufficient. *Id.* at 1377 (emphasis added).

Properly understood, *Schering* affirms that a POSA must recognize, from the prior art, that the prior art leads to an inevitable consequence or inherent feature. The recognition of that result need not itself be prior art—but the “later recognition” must still flow inevitably from the prior art’s teachings.

B. The panel decision abrogated any form of a “recognition” requirement for proving inherency.

The present case fails to apply any recognition requirement for assessing inherency. The Court made no findings that the allegedly inherent characteristic—

soybeans with the claimed fatty acid profiles—could be recognized from Booth. Indeed, they could not be, because every data point presented in that patent fell outside Monsanto’s claims. Appx7-Appx8. The supposed inherent characteristic could be discerned only after the submission of a declaration describing previously confidential information that had been omitted from the prior art patent’s disclosure. Op. at 14-15. Nevertheless, the Court found inherent anticipation and obviousness.

While the panel asserted that the declaration describing these soybeans’ fatty acid profiles did not “expand” the meaning of the prior art, that is not the case. Op. at 15. By definition, non-prior art, confidential information made public in a declaration years after the fact, cannot “explain” a prior art reference. The data used to reject Monsanto’s claims were not identified in Booth, and as far as the record indicates, the data and the soybeans from which it was obtained were available only to DuPont scientists in DuPont facilities. The use of such confidential information expanded the meaning of Booth beyond what would have been recognized by a POSA, contrary to the three cases the panel cited in support of its position. *See Telemac*, 247 F.3d at 1328-30; *Baxter*, 952 F.2d at 390; *Ciba-Geigy Corp.*, 68 F.3d 487.

Schering’s holding about contemporaneous recognition also does not justify the Court’s use of the confidential information in the manner in which it was used

here. In *Schering*, the inherent feature came inevitably from the prior art itself, which described and enabled the administration of the prior-art compound leading inevitably to the claimed metabolite. 339 F.3d at 1376.

There was no such evidence here. Kinney did not assert that Booth inevitably required the production of soybeans with the claimed features. His declaration simply identified the properties of soybeans that DuPont actually obtained during the course of its research that were omitted from the disclosure of Booth. Appx360, Appx363-371. A small number of Kinney's soybeans allegedly contained the claim features. But there was no fact in the record that established that confidential data in Kinney's table reflected the inevitable consequence of anything described in the four corners of that patent, such that it would be inevitably obtained by a POSA performing Booth's disclosure. The panel declined to even address that question.¹

¹ The panel suggested in one sentence, without explanation, that Monsanto had "waived" any arguments that "Example 8 would not necessarily produce progeny soybean plants each and every time within the scope of the claims on appeal." Op. at 17. Monsanto did not waive application of the correct legal standard. Monsanto repeatedly disputed that the soybean data was admissible under that standard. *E.g.*, Appx5007 ("However, alleged inherent features or results must **necessarily and inevitably** flow from the prior art to support an anticipation rejection... [T]he Examiner's allegations amount to 'the mere fact that a certain thing may result' in order to support an anticipation rejection for inherency.") (emphasis in original); Appx5056 ("[I]t must be shown that the relied upon data... was **necessarily** the result of crossing parent lines meeting the defined claim limitations. However, there is no evidence in the present case that the extrinsic information in Exhibit A

Broadly applied, the panel’s rationale undermines the statutory basis for patent examination. If a *post hoc* declaration can be employed to fill in the gaps of a reference absent any showing of recognition in the prior art or any showing of inevitability, the declaration is functionally equivalent to prior art in sum and in substance. That holding threatens to open the floodgates to the use of non-prior art declarations to “explain” the meaning of any information that was omitted from the prior art’s teachings. Under the guise of inherency, the proponent of any invalidity argument could expand the prior art by submitting a declaration describing information left out of the prior art’s disclosure, but reflecting actual results of the underlying experiments. The holding creates an entire category of secret prior art.

II. This case provides a vehicle for presenting a clear articulation of the law of inherency.

The seriousness of this issue merits *en banc* attention, particularly in light of recent contrary case law. Since the *Schering* decision, this Court has continued to articulate the requirement of a POSA to recognize the claimed inherent feature from the teachings of the prior art. In 2009, *Agilent* affirmed that the “very essence of inherency is that one of ordinary skill in the art would recognize that a reference unavoidably teaches the property in question.” 567 F.3d at 1383. In 2017, *HTC* reaffirmed the requirement that “a person of ordinary skill in the art would

of the Second Kinney Declaration is **necessarilly** the result of the cross of the claims.”) (emphasis in original).

recognize that missing descriptive matter in a prior art reference is nevertheless necessarily present.” 877 F.3d at 1368 (citing *Cont’l Can*, 948 F.2d at 1268) (emphasis added). Likewise, in 2017, this Court held that inherency in the context of obviousness required the proof that a POSA “foresaw, or expected” the alleged inherent feature from the prior art. *Millennium Pharm., Inc.*, 862 F.3d at 1367. *Millenium’s* holding is irreconcilable with the obviousness conclusion of this Court, which made no finding that the claimed inherent effect was foreseen or predicted from the prior art. Op. at 19-21.

The panel’s failure to acknowledge or apply any recognition requirement constitutes a sharp break from this precedent. This case provides an opportunity for the *en banc* Court to take up the important issue of inherency for the first time, and to reconcile the decisional conflict created by the erroneous panel decision in this case.

CONCLUSION

The combined petition for rehearing should therefore be granted.

Dated: February 5, 2018

/s/ James M. Hilmert
James M. Hilmert

CERTIFICATE OF COMPLIANCE

Pursuant to Federal Rules of Appellate Procedure 32 and 35, I certify the following:

1. The foregoing petition complies with the type-volume limitations of Federal Rule of Appellate Procedure 35(b)(2) (2011) because, exclusive of the exempted portions, it does not exceed 15 double-spaced pages.

2. The foregoing petition complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type-style requirements of Federal Rule of Appellate Procedure 32(a)(6) because it has been prepared in a proportionally spaced typeface using Microsoft Word 2010 in 14-point Times New Roman type style.

Dated: February 5, 2018

/s/ James M. Hilmert

JAMES M. HILMERT

ADDENDUM

CERTIFICATE OF SERVICE

I hereby certify that on February 5, 2018, I caused the foregoing COMBINED PETITION FOR REHEARING OR REHEARING EN BANC to be electronically filed with the Clerk of Court using the CM/ECF system, and thereby served via CM/ECF on the counsel for Appellant E.I. DuPont de Nemours & Company.

Dated: February 5, 2018

/s/ James M. Hilmert
James M. Hilmert

**United States Court of Appeals
for the Federal Circuit**

MONSANTO TECHNOLOGY LLC,
Appellant

v.

E.I. DUPONT DE NEMOURS & COMPANY,
Appellee

2017-1032

Appeal from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in No. 95/002,028.

Decided: January 5, 2018

MATTHEW JAMES HILMERT, Winston & Strawn LLP,
Chicago, IL, argued for appellant.

MICHAEL J. FLIBBERT, Finnegan, Henderson,
Farabow, Garrett & Dunner, LLP, Washington, DC,
argued for appellee. Also represented by CORA RENAE
HOLT, MAUREEN DONOVAN QUELER.

Before DYK, REYNA, and WALLACH, *Circuit Judges*.

2 MONSANTO TECH. LLC v. E.I. DUPONT DE NEMOURS & CO.

WALLACH, *Circuit Judge*.

Appellee E.I. DuPont de Nemours & Co. (“DuPont”) sought inter partes reexamination of various claims of Appellant Monsanto Technology LLC’s (“Monsanto”) U.S. Patent No. 7,790,953 (“the ’953 patent”). The U.S. Patent and Trademark Office’s (“USPTO”) Patent Trial and Appeal Board (“PTAB”) issued a final decision that affirmed an examiner’s rejection of claims 1, 7, 12–22, 24, and 27–30 (“the Asserted Claims”) as anticipated by U.S. Patent No. 6,426,448 (“Booth”), and of, inter alia, claim 2 as obvious over Booth. *See E.I. DuPont de Nemours & Co. v. Monsanto Tech. LLC*, No. 2015-007692, 2016 WL 4255131, at *3 (P.T.A.B. Aug. 10, 2016).

Monsanto appeals. We have subject matter jurisdiction pursuant to 28 U.S.C. § 1295(a)(4)(A) (2012). We affirm.

BACKGROUND

I. The Patented Technology

Entitled “Soybean Seed and Oil Compositions and Methods of Making Same,” the ’953 patent claims a two-step process for crossing (mating) two parent soybean lines to produce soybean seeds with a modified fatty acid profile. *See* ’953 patent col. 111 ll. 34–67; *id.* col. 1 ll. 31–37. The ’953 patent describes “the combination of transgenes that provide both moderate oleic acid levels and low saturated fat levels with soybean germplasm that contains mutations in soybean genes that confer low linolenic acid phenotypes.” *Id.*, Abstract. Claim 1, which was amended during the reexamination, is the sole independent claim and is illustrative.¹ It recites:

¹ Monsanto has not separately argued the patentability of the remaining Asserted Claims, so all Asserted Claims rise and fall with claim 1. *See Kennametal, Inc. v.*

A method of obtaining a soybean plant with an altered seed oil fatty acid composition comprising the steps of:

(a) crossing a first soybean parent line having a seed oil fatty acid composition comprising a linolenic acid content of *about 3% or less*^[2] of total seed fatty acids by weight with a second soybean parent line having a seed oil fatty acid composition wherein the i) level of oleic acid is greater than about 55% of total seed fatty acids by weight, or ii) wherein both the level of saturated fatty acid is about 8% or less of total seed fatty acids by weight and the level of oleic acid is greater than about 55% of total seed fatty acids by weight, said second soybean parent line comprising either a transgene that decreases the expression of an endogenous soybean FAD2-1 gene to provide the level of oleic acid greater than about 55% of total seed fatty acids by weight of said second parent soybean line of (i); or both a transgene that decreases the expression of an endog-

Ingersoll Cutting Tool Co., 780 F.3d 1376, 1385 (Fed. Cir. 2015) (stating that “we need not, and do not, separately analyze whether the [PTAB] correctly found [unpatentability] even as to the additional limitations recited in the [remaining] claims” because the appellant “did not argue for the independent patentability of any of [the remaining] claims”). We treat claim 2 separately in our review of the PTAB’s obviousness findings.

² “A ‘low linolenic’ oil composition contains less than about 3% linolenic acid by weight of the total fatty acids by weight.” ’953 patent col. 13 ll. 3–4.

enous soybean FATB gene and a trans gene that decreases the expression of an endogenous soybean FAD2-1 gene to provide the level of saturated fatty acid of about 8% or less by weight and the level of oleic acid greater than about 55% of total seed fatty acids by weight of said second parent soybean line of (ii); and

(b) obtaining a progeny^[3] plant exhibiting a seed oil fatty acid composition comprising a linolenic acid content of *about 3% or less* of total fatty acids by weight and also comprising either i) an oleic acid level in the range of [about] 55% to [about] 80% of total seed fatty acids by weight, or ii) both a saturated fatty acid level of about 8% or less of total seed fatty acids by weight and an oleic acid level of [about] 55% to [about]

³ When a single cross of two soybean parent lines results in multiple generations of plants, each generation is referred to as a “progeny.” ’953 patent col. 11 ll. 8–15. Relevant here, when referring to progeny of a particular generation, the ’953 patent uses an identifier to specify the generation. For example, it uses the term “F1 progeny” (“F1”) to refer to the first generation progeny from a cross of two plants and the term “F2 progeny” (“F2”) to refer to the second generation of progeny from that cross (i.e., the first cross of the first progeny). *Id.* col. 11 ll. 8–9, 12–13; *e.g., id.* col. 4 l. 50, col. 5 l. 34, col. 7 l. 29, col. 8 ll. 12–13. The ’953 patent also uses the term “progeny” without a generation identifier to refer more broadly to any generation of progeny plants, *see, e.g., id.* col. 5 l. 66, col. 6 l. 26, col. 8 l. 46, col. 13 l. 26, and uses designations such as “F2:3” to distinguish separate batches of the second generation of progeny, *e.g., id.* col. 25 l. 53.

80% of total seed fatty acids by weight, thereby obtaining a soybean plant with an altered seed oil fatty acid composition.

J.A. 329–30 (footnotes and emphases added) (alterations in original).⁴

II. Booth

Booth is directed toward a number of soybean crosses aimed at obtaining progeny with desired fatty acid compositions. *See* Booth col. 38 l. 53–col. 45 l. 43 (exs. 5–8), col. 47 l. 53–col. 48 l. 40 (ex. 11). Similar to the ’953 patent, Booth discloses a “variety of novel soybean genes that alter oil quality.” *Id.* col. 6 ll. 40–41. Specifically, Booth Example 8 describes a method of crossing two soybean lines, one with a “fan allele” or D3A gene for low linolenic acid content and the other with a D2T gene for high oleic acid content. *See id.* col. 25 l. 45–col. 26 l. 38 (Example 8: “Soybeans with High Oleic Acid and Low Linolenic Acid Content”); *see also id.* tbl. 12 (showing the fatty acid makeup of the selected progeny plants).

During the inter partes reexamination, DuPont submitted two declarations from one of Booth’s named inventors, Dr. Anthony John Kinney (together, “the Kinney Declarations”). J.A. 133–275 (First Kinney Declaration), 359–71 (Second Kinney Declaration). DuPont produced the Kinney Declarations to show data from additional progeny produced by following the disclosed method of Example 8, “including plants not selected for inclusion in

⁴ The bracketed language in amended claim 1 reflect language deleted from the ’953 patent as issued. During inter partes reexamination, Monsanto additionally amended claims 2 and 7–11 and submitted new claims 12–30. J.A. 328–34. The dependent claims as amended narrow the scope of the fatty acid or linolenic acid profiles of the progeny plants. *See* J.A. 330–34.

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Table 12 of the Booth patent.” J.A. 360 (footnote omitted). Relevant here, the PTAB relied upon the Kinney Declarations to interpret the fatty acid properties of the F2:3 generation because it found the “F2:3 generation results provided in Exhibit A of the Second Kinney Declaration represent[ed] the lines of all resulting progeny” from a cross prepared according to Booth Example 8 and related Table 12 that were not included in Booth Table 12. *E.I. DuPont*, 2016 WL 4255131, at *4 n.9; see J.A. 360 n.1.

DISCUSSION

Monsanto contends that the PTAB erred by: (1) misconstruing the “about 3% or less” limitation in the ’953 patent to include progeny with a linolenic acid content of 4%, Appellant’s Br. 45–50; (2) “rejecting [the Asserted C]laims for anticipation” based on “an unlawful composite” of Booth and the Kinney Declarations, the latter of which Monsanto alleges are non-prior art references, *id.* at 33–34 (capitalization and alterations omitted); see *id.* at 33–50; and (3) employing a legally erroneous “accidental obviousness theory for claim 2,” *id.* at 51 (capitalization and alterations omitted); see *id.* at 50–60. After articulating the applicable standard of review, we address these arguments in turn.

I. Standard of Review

“We review the PTAB’s factual findings for substantial evidence and its legal conclusions de novo.” *Redline Detection, LLC v. Star Envirotech, Inc.*, 811 F.3d 435, 449 (Fed. Cir. 2015) (citation omitted). “Substantial evidence is something less than the weight of the evidence but more than a mere scintilla of evidence,” meaning that “[i]t is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.” *In re NuVasive, Inc.*, 842 F.3d 1376, 1379, 1380 (Fed. Cir. 2016) (internal quotation marks and citations omitted). If two “inconsistent conclusions may reasonably be drawn from the evidence in record, [the PTAB]’s decision to favor one

conclusion over the other is the epitome of a decision that must be sustained upon review for substantial evidence.” *In re Cree, Inc.*, 818 F.3d 694, 701 (Fed. Cir. 2016) (internal quotation marks and citation omitted).

II. Claim Construction

A. Legal Standard

We review the PTAB’s ultimate claim construction de novo and its underlying factual findings for substantial evidence. *In re CSB-Sys. Int’l, Inc.*, 832 F.3d 1335, 1340 (Fed. Cir. 2016) (citing, inter alia, *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 840–41 (2015)). “During reexamination proceedings of unexpired patents, . . . the [PTAB] uses the broadest reasonable interpretation consistent with the specification standard, or BRI.” *Id.*, 832 F.3d at 1340 (internal quotation marks and citations omitted). A specification “includes both the written description and the claims” of the patent. *In re Packard*, 751 F.3d 1307, 1320 n.11 (Fed. Cir. 2014). A patent’s specification, together with its prosecution history,⁵ constitutes intrinsic evidence to which the PTAB gives priority when it construes claims. *See Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1297–98 (Fed. Cir. 2015). When the PTAB reviews only evidence intrinsic to the patent, the PTAB’s determination will amount solely to a determination of law, which we review de novo. *See In re CSB-Sys.*, 832 F.3d at 1340.

⁵ A patent’s prosecution history “consists of the complete record of the proceedings before the [US]PTO,” which provides “evidence of how the [US]PTO and the inventor understood the patent.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (citations omitted).

B. The PTAB Properly Construed the “About 3% or Less”
Limitation in Step (a)

The PTAB “reasonably interpreted” Booth’s parent line containing 4% linolenic acid “to be within the scope of ‘about 3%,’” as recited in claim 1 step (a).⁶ *E.I. DuPont*, 2016 WL 4255131, at *6.⁷ Monsanto maintains that the PTAB’s construction is inconsistent with the specification. Appellant’s Br. 45–50; see J.A. 5006 (arguing before the PTAB that a “4% linolenic acid content is outside the scope of a 3% linolenic acid content” (capitalization omitted)).⁸ We disagree.

⁶ Monsanto does not dispute that Booth “meets the definition of the second line in Monsanto’s claimed cross [as it relates to D2T],” Oral Arg. at 11:04–12, <http://oralarguments.cafc.uscourts.gov/default.aspx?fl=2017-1032.mp3>, which includes a separate “about 3% or less” limitation, see J.A. 329–30.

⁷ “Claim construction must . . . be explicit, at least as to any construction disputed by parties.” *Gechter v. Davidson*, 116 F.3d 1454, 1460 (Fed. Cir. 1997). Although the PTAB did not formally label its “about 3%” finding as a claim construction, the Examiner treated the analysis as such, see *E.I. DuPont*, 2016 WL 4255131, at *5, and the PTAB stated that it “agree[s] with” the Examiner, *id.* at *6–7. The parties also treat the finding as a construction on appeal. See Appellant’s Br. 45–50; Appellee’s Br. 43–47. The PTAB’s anticipation analysis is “conducted on a limitation by limitation basis, with specific fact findings for each contested limitation and satisfactory explanations,” *Gechter*, 116 F.3d at 1460 (footnote omitted), and so we have sufficient basis to review the PTAB’s findings here. We thus analyze its findings on the term “about 3%” under our claim construction framework.

⁸ For the first time on appeal, Monsanto proffers a new definition of “*about* 3%” to mean allowing variance

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The claim language is not instructive, so we turn to the remainder of the specification. *See Marine Polymer Techs., Inc. v. HemCon, Inc.*, 672 F.3d 1350, 1358 (Fed. Cir. 2012). Indeed, in *Phillips*, we held that the specification “is the single best guide to the meaning of a disputed term.” 415 F.3d at 1315 (internal quotation marks and citation omitted). Here, the specification provides examples, which are “included to demonstrate preferred embodiments of the invention.” ’953 patent col. 29 ll. 64–65. Example 9 describes a parent line designated as the “C1640 line” with “a linolenic acid content of about 3%.” *Id.* col. 45 l. 65; *see id.* col. 45 ll. 64–66. The specification further identifies Wilcox, J.R. et al., *Inheritance of Low Linolenic Acid Content of the Seed Oil of a mutant In Glycine Max*, *Theoretical & Applied Genetics* (1985) (“Wilcox”) as the source of this C1640 line, *see id.* col. 46 ll. 2–5, and Wilcox states that the C1640 line has a range of linolenic acid contents from 2.3% to 4.1%, J.A. 5098. In light of this intrinsic evidence,⁹ we agree with the PTAB’s

from 3% “at the most by tenths of a percent and *not* an entire percentage.” Appellant’s Br. 46 (emphases added). Monsanto never proffered this construction to the PTAB, *see* J.A. 5001–30 (original brief to PTAB), 5052–66 (rebuttal brief to PTAB). While the court “retains case-by-case discretion over whether to apply waiver,” *Harris Corp. v. Ericsson Inc.*, 417 F.3d 1241, 1251 (Fed. Cir. 2005) (citations omitted), we have held that a party waives an argument that it “failed to present to the [PTAB]” because it deprives the court of “the benefit of the [PTAB]’s informed judgment,” *In re NuVasive*, 842 F.3d at 1380 (citation omitted). Accordingly, we find Monsanto’s new claim construction argument waived.

⁹ Neither party discussed further evidence of prosecution history for our review, *see generally* Appellant’s Br.; Appellee’s Br., so we need not address it, *see Teleflex*,

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finding that a person having ordinary skill in the art (“PHOSITA”) would reasonably consider “about 3%” to encompass a range that includes 4%. *See E.I. DuPont*, 2016 WL 4255131, at *6.

Monsanto’s counterargument is unavailing. Monsanto maintains that “[e]ven *if* it had been appropriate to construe ‘about 3% or less’ based on Wilcox rather than the specification,” the PTAB erred in “defin[ing] the claims based on the highest, most outlying data point for linolenic acid in Wilcox’s sample” rather than its mean and standard deviation values. Appellant’s Br. 48 (emphasis added). However, Monsanto fails to identify what qualifies as an “outlier” or cite anything in the intrinsic record contradicting the “about 3%” claim interpretation before us. *See generally id.* Accordingly, the PTAB did not err in its construction of the “about 3%” limitation.

III. Anticipation

A. Legal Standard

“Anticipation is a question of fact that we review for substantial evidence.” *Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1341 (Fed. Cir. 2016) (citation omitted). Likewise, “[w]hether a claim limitation is inherent in a prior art reference is a question of fact.” *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1328 (Fed. Cir. 2001) (citation omitted).

“A person shall be entitled to a patent unless,” *inter alia*, “the invention was patented . . . more than one year prior to the date of the application for patent in the United States.” 35 U.S.C. § 102(b) (2006).¹⁰ A prior art refer-

Inc. v. Ficosa North Am. Corp., 299 F.3d 1313, 1324 (Fed. Cir. 2002).

¹⁰ Congress amended § 102 when it passed the Leahy-Smith America Invents Act (“AIA”). Pub. L. No.

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ence anticipates a patent's claim under § 102(b) if it “discloses each and every element of the claimed invention arranged or combined in the same way as in the claim.” *Blue Calypso*, 815 F.3d at 1341 (internal quotation marks, alterations, and citation omitted). “[A]nticipation by inherent disclosure is appropriate only when the reference discloses prior art that must *necessarily* include the unstated limitation . . .” *Transclean Corp. v. Bridgewood Servs., Inc.*, 290 F.3d 1364, 1373 (Fed. Cir. 2002) (citation omitted).

B. Substantial Evidence Supports the PTAB's Finding
that Booth Anticipates the Asserted Claims

The PTAB found that Booth anticipates the Asserted Claims, relying in part on the Kinney Declarations, which analyze Booth. The PTAB concluded that Booth discloses step (a) of claim 1 and “the Second Kinney Declaration shows that . . . the progeny of plants obtained” from step (a) “as taught by Example 8 of Booth necessarily includes” plants disclosed in step (b). *E.I. DuPont*, 2016 WL 4255131, at *9; *see id.* at *18 (“[T]he evidence in the Kinney Declarations establishes that carrying out the crosses described by Booth, particularly[] the D2T and *fan* allele cross, would have necessarily resulted in progeny within the scope of claim 1.”).

Monsanto contends that the PTAB's anticipation findings are not supported by substantial evidence because

112-29, § 3(b)(1), 125 Stat. 284, 285–87 (2011). However, because the application that led to the '953 patent has never contained a claim having an effective filing date on or after March 16, 2013 (the effective date of the statutory changes enacted in 2011), or a reference under 35 U.S.C. §§ 120, 121, or 365(c) to any patent or application that ever contained such a claim, the pre-AIA § 102 applies. *See id.* § 3(n)(1), 125 Stat. at 293.

the PTAB may not rely on the Kinney Declarations and, when reviewing only intrinsic evidence, Booth Example 8 does not “inevitably produce[] progeny within the scope of [the Asserted C]laims.” Appellant’s Br. 36 (internal quotation marks omitted); *see id.* at 36–45. Monsanto also argues that, if we consider the PTAB’s findings to be based on inherent anticipation, the record does not support a finding that Booth inherently anticipates Monsanto’s claims. *See id.* at 35 (citing to the PTAB’s statement that Booth “*necessarily* includes” progeny within the claim scope as evidence of potential review for inherent anticipation but noting that the PTAB never used the term “inherent” explicitly (emphasis added)).¹¹ We disagree.

1. Substantial Evidence Supports the PTAB’s Finding that Booth Teaches Steps (a) and (b) of the Asserted Claims

Substantial evidence supports the PTAB’s finding that Booth expressly discloses step (a) of claim 1. Step (a) discloses crossing soybean lines having known genetic features—a first parent line having “about 3% or less” seed oil linolenic acid content with a second parent line having a transgene that decreases the expression of the FAD2-1 gene—and, thus, having a seed oil oleic acid content greater than about 55%. ’953 patent col. 111 l. 39; J.A. 329.

Booth Example 8 describes crossing a first parent line containing “either a fan allele or the D3A gene” with a second line containing “the D2T gene.” Booth col. 25

¹¹ Monsanto additionally contends that, “[b]ecause the [PTAB]’s ‘anticipation’ rulings were premised on [an incorrect claim construction], they should be reversed for this additional reason as well.” Appellant’s Br. 50. Because we find the PTAB’s claim construction proper, *see supra* Section II.B, we find this argument unpersuasive.

ll. 49–50. Table 2 of Booth identifies the fatty acid characteristics of the first parent lines that were used. *Id.* tbl. 2; *see* J.A. 135–39. Booth states that the fan allele line in Table 2 has 4% linolenic acid by weight and that the D2T line has a fatty acid content of 85%. Booth tbl. 2; *see* J.A. 136–37. Thus, given our claim construction above that 4% is within the “about 3%” limitation, we find that a fan allele cross of the parent line from Booth anticipates step (a) of claim 1 of the ’953 patent. We further find substantial evidence that Booth teaches that the D2T line contains a transgene that decreases the expression of the FAD2-1 gene, providing 85% seed oil oleic acid levels—thus meeting both the transgene and the “greater than about 55%” seed oil oleic acid requirement for the second parent line of the ’953 patent claim 1 step (a). *See* Booth tbl. 2 (indicating D2T as having an oleic acid content of 85%—oleic being shorthand in the table as column “18:1”); *see also* J.A. 137–39.

Substantial evidence also supports the PTAB’s finding that Booth “necessarily includes” step (b) of the Asserted Claims. *E.I. DuPont*, 2016 WL 4255131, at *7.¹² Step (b) requires “obtaining a progeny plant” having a seed oil fatty acid composition with low levels of linolenic acid (about 3% or less) and oleic acid levels from 55% to 80%. *See* ’953 patent col. 111 ll. 58–67; *see also* J.A. 329. Step (b) does not limit a progeny to a first generation plant. *See* ’953 patent col. 111 ll. 58–67; *see* Oral Arg. at 5:39–41 (conceding by counsel for Monsanto that “[t]he claims don’t require any particular progeny.”). Table 12 of Booth reports seed oil fatty acid profiles of some of those progeny generation plants. *See* Booth tbl. 12; *see also id.* col. 25 ll. 48–65.

¹² We treat the PTAB’s statement as a finding of inherent anticipation for purposes of this appeal.

Monsanto argues that Booth does not anticipate step (b) of claim 1 because Table 12 does not *explicitly* identify a progeny with the fatty acid by weight characteristics of claim 1 step (b), but rather identifies progeny with seed oil oleic acid contents above the '953 patent's claimed ranges, which "forecloses any claim of inherency." Appellant's Br. 37. As the PTAB found, Booth "clearly [informs a PHOSITA] that Table 12 does not represent the full scope of the progeny lines resulting from the cross, but only represents the [s]ingle plants and family means that were both lowest in linolenic acid content and highest in oleic acid content." *E.I. DuPont*, 2016 WL 4255131, at *9 (quoting Booth col. 25 ll. 61–65). Indeed, Booth expressly states that *multiple* generations of plants, including the "F2:3 families" generations not shown in Table 12, were obtained from the cross. *See* Booth col. 25 ll. 48–65. Because Booth describes obtaining many progeny from the cross families of Example 8 but only reports a "select" subset of results in Table 12, *E.I. DuPont*, 2016 WL 4255131, at *4, the "select" subset of Table 12 does not *foreclose* inherency.

Inherent anticipation applies here because the "[Booth] disclosures . . . must *necessarily* include the unstated limitation," *Transclean*, 290 F.3d at 1373, i.e., the progeny line having a seed oil fatty acid composition with low levels of linolenic acid and high levels of oleic acid. The Second Kinney Declaration's D2T and fan allele cross confirm that Booth's F2:3 generation would necessarily result in progeny within the scope of claim 1. *See* J.A. 360, 364–71 (describing and containing resultant fatty acid profile data set for seeds from the F2:3 generation from which the Booth Table 12 plants were self-pollinated to produce F3:4 progeny—of which forty-five have an oleic acid content of 55% to 80% and a linolenic acid content of 3.5% or less, and sixteen have an oleic acid content of between 55% and 80% by weight and a linolenic acid content of 3% or less by weight). As the PTAB ex-

plained, the Kinney Declarations confirm that the cross from step (a) “necessarily includes progeny plants that have an oleic acid concentration and a linolenic acid concentration” as claimed in step (b), *E.I. DuPont*, 2016 WL 4255131, at *7, such that substantial evidence demonstrates that Booth inherently anticipates step (b) of the Asserted Claims as construed.

2. The PTAB Properly Relied Upon the Kinney Declarations

Monsanto maintains that the PTAB impermissibly looked to “non-prior art data” and “secret data” by using the Kinney Declarations to support its anticipation finding. Appellant’s Br. 34; *see id.* at 33–36.¹³ However, Monsanto confuses prior art with extrinsic evidence used to support what is “necessarily present” in a prior art’s teaching. Extrinsic evidence “may be used to interpret the allegedly anticipating reference and [to] shed light on what it would have meant to [a PHOSITA].” *Ciba-Geigy Corp. v. Alza Corp.*, No. 95-1046, 1995 WL 598380, at *2 (Fed. Cir. 1995) (citation omitted); *see In re Baxter Travonol Labs.*, 952 F.2d 388, 390 (Fed. Cir. 1991). We conclude that the PTAB did not err in relying upon the Kinney Declarations.

First, the Kinney Declarations do not expand the meaning of Booth or serve as prior art: they demonstrate what is inherent in Booth progeny with various seed oil fatty acid profiles. *See* J.A. 142 (“[Booth] discloses the benefits of producing an altered seed fatty acid content that favors saturated fatty acids such as oleic acid over

¹³ Monsanto makes the same argument with respect to the PTAB’s obviousness findings. *See* Appellant’s Br. 51, 54. Our finding that the PTAB properly looked to the Kinney Declarations in its anticipation analysis applies equally to the PTAB’s obviousness findings.

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polyunsaturated fatty acids such as linolenic acid to improve the health of those ingesting the soybean plant or products made from the soybean plant.”); *see also* J.A. 360 (“Exhibit A shows the fatty acid profiles for seeds from all of the plants resulting from cross described in [Booth] Example 8 . . . including plants not selected for inclusion in Table 12 . . .” (footnote omitted)).

Second, the Kinney Declarations are not improper “secret data” simply because they were not published. The Kinney Declarations were not used as the single prior art anticipatory reference for purposes of this appeal. Instead, they were offered in support of the prior art already of record, Booth, for purposes of anticipation. It is well established that such reliance on extrinsic evidence is proper in an inherency analysis. *See Telemac*, 247 F.3d at 1328 (“[R]ecourse to extrinsic evidence is proper to determine whether a feature, while not explicitly discussed, is necessarily present in a reference.” (citation omitted)). Moreover, extrinsic evidence need not antedate the critical date of the patent at issue, *Schering Corp. v. Geneva Pharm., Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003) (“[T]his court rejects the contention that inherent anticipation requires recognition in the prior art.”), nor have contemporaneous recognition by a PHOSITA, *id.* (“[R]ecognition by a [PHOSITA] before the critical date . . . is not required to show anticipation by inherency.”). In addition, the Kinney Declarations were not secretive for purposes of the lower proceeding. Monsanto submitted the First Kinney Declaration with its Request For Inter Partes Reexamination, J.A. 133, and submitted the Second Kinney Declaration in response to Monsanto’s challenge that the F2:4 generation progeny plant (from the First Kinney Declaration) represents an “outlier” for oleic acid content cited in Booth, J.A. 361 (“The 72.8% oleic acid content in Exhibit 5 of [the First Kinney Declaration] corresponding to sample 7OLT-2709-0 of Table 12 is consistent with the oleic acid contents of the samples

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identified . . .”). Contrary to Monsanto’s assertions about a “void of evidence about the origin of that secret data,” Appellant’s Br. 42, we find the Kinney Declarations demonstrate the inherent features already in Booth’s express teachings regarding the resultant progeny characteristics.

Third, although Monsanto cites to *Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043 (Fed. Cir. 1995), to support its contention that the Kinney Declarations are insufficient or inaccurate, *see* Appellant’s Br. 41, *Glaxo* is inapposite. In *Glaxo*, the parties disputed whether the process found in a prior art’s specification produced the claimed invention. 52 F.3d at 1047. The petitioner’s expert presented extrinsic evidence in the form of testimony on the issue of inherent anticipation; however, the patent-owner successfully rebutted the petitioner’s evidence with its own data and expert testimony. *Id.* Unlike *Glaxo*, here, Monsanto presented no rebuttal testimony. *See E.I. DuPont*, 2016 WL 4255131, at *5 (“Without evidence to the contrary, it is reasonable to assume that both Exhibit 5 and Exhibit A are results directed to a D2T and *fan* allele cross as identified by the First Kinney Declaration.”), *7 (“[Monsanto] has presented no argument or evidence to suggest that the data provided by Dr. Kinney in Exhibit A of the Second Kinney Declaration does not fairly represent actual test results from a cross prepared in Example 8 of Booth.”). To the extent Monsanto raises arguments that Example 8 would not necessarily produce progeny soybean plants each and every time within the scope of the claims on appeal, *see* Appellant’s Br. 20–22, we find those waived, *see Singleton v. Wulff*, 428 U.S. 106, 120 (1976) (“It is the general rule, of course, that a federal appellate court does not consider an issue not passed upon below.”). In any event, as counsel for Monsanto agreed at oral argument, the claims do not require that the desired soybean progeny be produced each and every time. Oral Arg. at 5:34–7:19, 28:34–56. For the foregoing reasons,

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the PTAB did not err in relying on the Kinney Declarations.

IV. Obviousness

A. Legal Standard

A patent claim is invalid as obvious “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a [PHOSITA].” 35 U.S.C. § 103(a) (2006).¹⁴ Obviousness is a question of law based on underlying findings of fact. *See In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000).

“[A]lthough anticipation can be proven inherently, proof of inherent anticipation is not the same as proof of obviousness.” *Cohesive Techs., Inc. v. Waters Corp.*, 543 F.3d 1351, 1364 (Fed. Cir. 2008). “Though less common, in appropriate circumstances, a patent can be obvious in light of a single prior art reference if it would have been obvious to modify that reference to arrive at the patented invention.” *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1361 (Fed. Cir. 2016), *cert. denied sub nom. Google Inc. v. Arendi S.A.R.L.*, 137 S. Ct. 1329 (2017). This court has “repeatedly held that the motivation to modify a prior art reference to arrive at the claimed invention need not be the same motivation that the patentee had.” *Alcon Research, Ltd. v. Apotex Inc.*, 687 F.3d 1362, 1368 (Fed. Cir. 2012).

¹⁴ Congress also amended § 103 when it enacted the AIA. Pub. L. No. 112-29, § 3(c), 125 Stat. at 287 (2011). As discussed *supra*, the pre-AIA § 103 applies. *See id.* § 3(n)(1), 125 Stat. at 293.

B. Substantial Evidence Supports the PTAB's Finding of Obviousness Related to Claim 2

Dependent claim 2 limits the claim 1 step (b) progeny plant to specific percentage ranges of linolenic, oleic, and seed oil fatty acid levels, requiring that a step (b) progeny plant have a seed oil linolenic acid content “of about 1% to about 3%” by weight, an “oleic acid content of . . . 65% to . . . 80%” by weight, and a seed oil saturated fatty acid level of “about 1.5% to about 8%” by weight. J.A. 330. The PTAB affirmed the Examiner’s rejection of claim 2 on grounds that “claim 2 would have been obvious” while basing its factual findings in large part upon its prior anticipation findings for similar claim 29.¹⁵ *E.I. DuPont*, 2016 WL 4255131, at *8 (“Although the Examiner did not include claim 2 in the anticipation rejection . . . , [Monsanto] does not dispute [line 7OLT-IP36102-20 of the Second Kinney Declaration] falls within the scope of [the claim 2 limitation] ‘about 3%’ by weight.” (citation omitted)).¹⁶ The PTAB reasoned that a PHOSITA would have

¹⁵ Claim 2 is similar to claim 29 in that it requires a saturated fatty acid level of “about 8%” of total seed fatty acid as an added limitation. Compare J.A. 330, with J.A. 334. Monsanto does not dispute that claim 1 is representative for purposes of anticipation, so we do not separately address claim 29 in our anticipation findings. See *Kennametal*, 780 F.3d at 1385.

¹⁶ The PTAB also reviewed and affirmed the Examiner’s obviousness rejections relating to claims 1, 7, 24, and 27–30. Because we find the Asserted Claims invalid as anticipated, we do not review Monsanto’s alternative arguments regarding the PTAB’s obviousness findings with respect to the Asserted Claims. See *In re Gleave*, 560 F.3d 1331, 1338 (Fed. Cir. 2009) (declining to address alternative grounds of unpatentability when the court upholds one such ground).

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a reasonable expectation of success in performing the D2T or fan allele cross. *See E.I. DuPont*, 2016 WL 4255131, at *8–9.

Our findings with respect to anticipation apply equally here. *See supra* Section III.B. As such, the Second Kinney Declaration’s disclosure of a progeny (7OLT-IP36102-20) with a saturated acid content of about 8% by weight, an oleic acid content of 80% by weight, and a linolenic acid content of 3.4% by weight is substantial evidence to support the finding of obviousness. *See* J.A. 370; *see also* J.A. 275, 359–71. Therefore, the sole remaining issue concerns whether a PHOSITA would have been motivated to modify Booth to arrive at the patented invention. *See Arendi S.A.R.L.*, 832 F.3d at 1361.

Despite Monsanto’s contentions to the contrary, *see* Appellant’s Br. 52, we find substantial evidence supports the PTAB’s determination that a PHOSITA would have been motivated to combine elements of Booth. The PTAB did not base its obviousness finding solely on its inherent anticipation analysis.¹⁷ The PTAB explained that a PHOSITA would have been motivated to modify Booth to produce plants having more variable seed oil fatty acid characteristics, as found in claim 2 of the ’953 patent, because Booth “only represents the [s]ingle plants and family means that were both lowest in linolenic acid content and highest in oleic acid content.” *E.I. DuPont*,

¹⁷ Given the Examiner did not reject claim 2 on grounds of anticipation, the PTAB could not independently adopt this ground of rejection without following the procedures required for a new ground of rejection. *See Honeywell Int’l Inc. v. Mexichem Amanco Holding S.A. de C.V.*, 865 F.3d 1348, 1357 (Fed. Cir. 2017) (explaining that the PTAB’s “ability to rely on different grounds [of rejection] than the examiner” is limited (internal quotation marks and citation omitted)).

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2016 WL 4255131, at *9 (quoting Booth col. 25 ll. 61–65)). The PTAB then “[ou]nd this evidence sufficiently teaches [a PHOSITA] that the progeny results also include[] plants that have higher linolenic acid content and/or lower oleic acid content.” *Id.* Monsanto points to no statement or suggestion in Booth that it would be undesirable to produce progeny having low seed oil levels of linolenic acid and 65% to 80% oleic acid (i.e., the composition recited in claim 2). *See generally* Appellant’s Br. Accordingly, we uphold the PTAB’s conclusion that claim 2 would have been obvious over Booth.

CONCLUSION

We have considered Monsanto’s remaining arguments and find them unpersuasive. Accordingly, the Decision on Appeal of the U.S. Patent and Trademark Office’s Patent Trial and Appeal Board is

AFFIRMED

CERTIFICATE OF SERVICE

I hereby certify that on February 5, 2018, I caused the foregoing COMBINED PETITION FOR REHEARING OR REHEARING EN BANC to be electronically filed with the Clerk of Court using the CM/ECF system, and thereby served via CM/ECF on the counsel for Appellant E.I. DuPont de Nemours & Company.

Dated: February 5, 2018

/s/ James M. Hilmert
James M. Hilmert