

PRECEDENTIAL

UNITED STATES COURT OF APPEALS
FOR THE THIRD CIRCUIT

No. 23-1487

ARES TRADING S.A.,
Appellant

v.

DYAX CORP.

On Appeal from the United States District Court
for the District of Delaware
(D.C. No. 1-19-cv-02300)
District Judge: Honorable Evan J. Wallach*

Argued: March 5, 2024

Before: KRAUSE, PORTER, and CHUNG, *Circuit Judges*

(Filed: August 14, 2024)

* Senior United States Circuit Judge, United States Court of Appeals for the Federal Circuit, sitting by designation pursuant to 28 U.S.C. § 294(d).

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OPINION OF THE COURT

PORTER, *Circuit Judge*.

Dyax Corporation performed research for Ares Trading S.A. It also licensed patents to Ares, including some held by Cambridge Antibody Technology (the “CAT Patents”). Ares used the fruits of Dyax’s research to commercialize a cancer drug. In exchange, Ares agreed to pay royalties to Dyax based on the drug’s sales. Under the parties’ agreement, Ares’ royalty obligation to Dyax has outlasted the lifespan of the CAT Patents.

The District Court held that Ares’ royalty obligation is not unenforceable under *Brulotte v. Thys Co.*, in which the Supreme Court declared unenforceable a royalty obligation because it conflicted with federal policy favoring limited patent duration. 379 U.S. 29, 30 (1964). We will affirm. Under *Brulotte*, a patent licensee’s royalty obligation is unenforceable only if it is calculated based on activity requiring use of inventions after their patents expire. Ares’ obligation is not calculated based on activity requiring use of inventions covered by

the CAT Patents after their expiration, so it does not improperly prolong the CAT Patents' duration and thus does not implicate *Brulotte*.

I. FACTS AND PROCEDURAL BACKGROUND

A. Phage Display

The research that Dyax performed for Ares involved “phage display,” a laboratory process used to develop medications. The process begins with the identification of a “target” that contributes to disease. The target is screened against a phage display “library,” which is a large collection of antibody fragments. During this screening process, some fragments in the library may “bind” with the target. The fragments that bind best with the target are then developed with the ultimate goal of formulating medications that neutralize the target in the human body.

Take the development of Bavencio, the cancer drug at issue in this case. Bavencio's development began with Ares identifying a target molecule known as PD-L1. PD-L1 prevents the immune system from attacking cells to which it is attached. When PD-L1 is attached to cancer cells, it shields them from attack. Ares delivered PD-L1 to Dyax as a target for phage display, seeking “an antibody that would . . . inhibit it.” Opening Br. 8. Dyax performed phage display and identified 167 antibody fragments that bind to PD-L1. Ares used one of those fragments to develop Bavencio.

B. Dyax-CAT Contracts

Dyax is a biotechnology company that specializes in phage display. It obtained many patents in the phage display field,

covering both phage display libraries and methods of using those libraries. But there were (and are) other players in the phage display field who obtained their own patents. *See* App. 3167 (describing phage display as a “patent minefield”). To achieve “freedom to operate” while performing phage display, Dyax obtained licenses for these other phage display patents.¹

As relevant to this dispute, Dyax obtained licenses for phage display patents owned by CAT. Like Dyax, CAT obtained patents covering both phage display libraries and methods of using those libraries. Under one of Dyax’s agreements with CAT, signed in 2003, Dyax is entitled to obtain “product licenses” for specific targets and “practice” the inventions covered by the CAT Patents in relation to those targets.²

¹ “Freedom to operate” means that a “firm can employ the patented technology without having to be concerned about being sued for infringement.” Jonathan S. Masur & Lisa Larrimore Ouellette, *Patent Law: Cases, Problems, and Materials* 530 (3d ed. 2023).

² Here, we must briefly define the term “practice.” A patent is a “right to exclude others from making, using, offering for sale, or selling [an] invention.” 35 U.S.C. § 154(a)(1). So if someone “makes, uses, offers to sell, or sells [an] invention” without the patent holder’s authorization, he “infringes the patent.” *Id.* § 271(a). We understand the term “practice” to denote acts that would constitute infringement of a valid patent if unauthorized. *Compare id., with Practice*, Black’s Law Dictionary (9th ed. 2009) (“To make and use (a patented invention)[.]”). Whether someone practices a patented invention depends on the invention’s scope, which is defined by the patent’s “claims.” *See*

Once it obtains a product license, Dyax is free to commercially “exploit” the target-related antibodies discovered while practicing the inventions covered by the CAT Patents (or allow a sublicensee to do the same). App. 4305 (capitalization altered). In exchange, it owes royalties to CAT based on that commercialization. Under the Product License for PD-L1, for example, Dyax owes CAT a percentage of Bavencio’s sales.

For each product license, Dyax must continue paying royalties to CAT “until the last Valid Claim expires or ten (10) years from the date of First Commercial Sale” of the product derived from the target-related antibody, “whichever occurs later.” App. 4316. A “Valid Claim” is a claim covered by CAT’s “Antibody Phage Display Patents,” which are the same CAT Patents that Dyax licensed to Ares. App. 4296. This means that Dyax’s royalty obligations to CAT may extend beyond the lifespan of the CAT Patents: Bavencio was first sold in 2017, so Dyax’s royalty obligation to CAT on

Masur & Ouellette, *supra*, at 24 (“The claims are the fence posts that mark out the metes and bounds of a patent owner’s intellectual property.”). Each claim is divided into “claim elements.” *Id.* at 27. So a claim may be composed of elements A, B, C, and D. *See id.* (using the example of the Swiffer Mop, which includes “a handle, a mop head, a liquid delivery system, and a disposable cleaning pad”). Someone practices this claimed subject matter if he makes, uses, or sells a product that includes these elements. So if he makes a product that includes elements A, B, C, D, and E, he practices the invention (and infringes the patent if he lacks the patent holder’s authorization). *Id.* at 27–28. But if he makes a product that includes elements A, B, C, and F, but not element D, he does not practice the invention. *Id.*

Bavencio's sales will last into 2027, but the last of the CAT Patents expired in 2018.

C. Ares-Dyax Contracts

Because of its licenses with companies like CAT, Dyax has freedom to operate in the phage display field. Dyax used its freedom to perform phage display for Ares under the Amended and Restated Collaboration and License Agreement ("CLA"), which Dyax and Ares signed in 2006. Massachusetts law governs the CLA.

1. Dyax's Obligations, Ares' Benefits

Under the CLA, Dyax's primary obligation was to use phage display to screen targets and provide the resulting antibody fragments to Ares. *See* App. 4159 ("Dyax shall use commercially reasonable efforts to identify Dyax Antibodies that bind to the Licensee Targets provided to Dyax under the terms of the Research Plan for each Research Campaign."); *see also* App. 4190 (identifying PD-L1 as a target in the first Research Campaign under the CLA). Ares never performed phage display in connection with the development of Bavencio. Instead, Ares provided targets and Dyax performed phage display. There is no dispute that Dyax performed the work required of it under the CLA.

Despite never performing phage display, Ares negotiated for and received licenses to certain phage display patents under the CLA. First, Dyax granted Ares a research license to the "Dyax Patent Rights." The CLA defines "Dyax Patent Rights" as any "patent application and patent . . . related to the use of the Dyax Libraries to conduct antibody phage display." App. 4153. It is undisputed that this phrase covers some patents that

will not expire until after Ares' royalty obligation on sales of Bavencio terminates.

Second, Dyax granted Ares a research sublicense to the "CAT Patent Rights." This phrase covers the same CAT Patents that are covered in the 2003 Dyax-CAT agreement. Ares admits that it did not practice the inventions covered by the CAT Patents while developing Bavencio. In its opening brief, Ares suggests that it practiced those inventions while performing certain Bavencio-related work. But Ares provides no evidence to support this suggestion, and the District Court did not clearly err in adopting Ares' admission "that the manufacture and sale of Bavencio[] does not practice subject matter claimed in the CAT Patents." *Ares Trading S.A. v. Dyax Corp.*, No. 19-cv-02300, 2023 U.S. Dist. LEXIS 40484, at *41 (D. Del. Mar. 10, 2023) (internal quotation marks and citation omitted).

Dyax's phage display work for Ares under the CLA implicated Dyax's upstream obligations to CAT under the 2003 Dyax-CAT agreement. Before Dyax could identify (and Ares could commercialize) the antibody fragments that bound to PD-L1, Dyax was required under the 2003 Dyax-CAT agreement and the CLA to obtain a Product License from CAT. To obtain a Product License, Dyax was required to submit PD-L1 to CAT for a "gatekeeping" procedure ("CAT Gatekeeping"). PD-L1 passed successfully through CAT Gatekeeping, so Dyax received a Product License. Dyax then transferred its rights under the Product License to Ares in a Product Sublicense, as required under the CLA. Under the Product Sublicense, Ares is entitled to sell products derived from PD-L1 binders that Dyax identified through phage display, such as Bavencio.

Along with the right to develop and sell Bavencio, the Product Sublicense conferred additional patent rights on Ares. Recall that under the CLA, Ares received “research licenses” to the Dyax and CAT Patents. This meant that Ares could use the inventions covered by the Dyax and CAT Patents to perform phage display. Under the Product Sublicense, Ares received “commercial licenses” to the Dyax and CAT Patents. A commercial license covers the “commercialization of an antibody,” which a research license does not. *Ares*, 2023 U.S. Dist. LEXIS 40484, at *24.

2. Ares’ Obligations, Dyax’s Benefits

In exchange for these benefits, Ares agreed to compensate Dyax in a variety of ways under the CLA, including making payments upon Dyax’s achievement of research milestones. Ares also agreed to pay royalties to Dyax, calculated based on a percentage of “Net Sales for Therapeutic Antibody Products commercialized by” Ares. App. 4172. The CLA defines a “Therapeutic Antibody Product” as “any preparation which is intended . . . for the treatment or prevention of disease, infection or other condition in humans, which contains, comprises, or the process of development or manufacture of which utilizes a Dyax Antibody.” App. 4158. “Dyax Antibody” refers to antibody fragments that Dyax “identifie[s]” using phage display and “deliver[s]” to Ares. App. 4153. Under these definitions, Bavencio qualifies as a Therapeutic Antibody Product because Ares developed it from an antibody fragment that Dyax discovered using phage display. Ares agreed to pay royalties for Therapeutic Antibody Products like Bavencio:

on a country-by-country and Product-by-Product basis for a period commencing with the First Commercial Sale in the relevant country and

ending ten (10) years after First Commercial Sale; provided, however, in the event that such ten (10) year period for a Product in a particular country ends prior to the expiration of the last CAT Valid Claim in such country, then royalties shall be payable in such country until the expiration of last CAT Valid Claim.

App. 4172–73 (emphasis omitted).

It is crucial to notice that the duration of Ares’ obligation to Dyax mirrors the duration of the royalty that Dyax owes upstream to CAT. And both obligations are triggered by the same condition—sales of Bavencio. When Ares sells Bavencio, it owes a percentage of Bavencio’s sales to Dyax, and Dyax owes a smaller percentage of Bavencio’s sales upstream to CAT. As previously mentioned, the last CAT Patent expired in 2018, but the first commercial sale of Bavencio occurred in 2017. Thus, the two royalty obligations on Bavencio’s sales will last until 2027, long after the CAT Patents’ expiration.

D. Negotiations Regarding *Brulotte*

Ares first learned of *Brulotte* in 2013, well after the parties signed the CLA and agreed to Ares’ royalty obligation. In 2017, Ares attempted to use *Brulotte* as a “negotiating tool” to reduce its royalty obligation to Dyax. *Ares*, 2023 U.S. Dist. LEXIS 40484, at *48. Dyax responded in an email, arguing that *Brulotte* did not apply. In this same email, Dyax questioned the inventorship of U.S. Patent No. 9,624,298 (the “’298 Patent”). “The ’298 Patent covers Bavencio, . . . meaning that Ares Trading practices the ’298 Patent” when it sells Bavencio. *Id.* at *40. Dyax suggested that its scientists should be named

as inventors of the '298 Patent because they discovered the antibody fragment that Ares developed into Bavencio. This would implicate Section 5.1(e) of the CLA, according to Dyax, under which Dyax is required to assign its scientists' inventions to Ares. The '298 Patent will not expire before Ares' royalty obligation to Dyax terminates.

Separately, Dyax [REDACTED]
[REDACTED] Takhzyro, a drug that Dyax developed.
And it [REDACTED]
[REDACTED] Cyramza, a drug that was "sourced from Dyax's antibody phage display libraries." *Id.* at *12. Simultaneously, Dyax [REDACTED]
[REDACTED] Dyax offered [REDACTED] to Ares—to work together in reducing Dyax's royalties to CAT and Ares' royalties to Dyax—but Ares declined.

E. This Civil Action

Ares sued Dyax, bringing three claims for declaratory judgment and one for reformation of the CLA. First, Ares asked for a declaratory judgment that its royalty obligation to Dyax is unenforceable under *Brulotte*. Second, it asked for reformation of the CLA to reduce its royalty obligation, insofar as it is unenforceable under *Brulotte*. Third, it asked for a declaratory judgment that if Dyax negotiates a reduction in its upstream royalty obligation to CAT, it must reduce Ares' royalty obligation to avoid violating the implied covenant of good faith and fair dealing. And fourth, it asked for a declaratory judgment that Ares' royalty obligation terminated upon expiration of the CAT Patents because Dyax's royalty obligation to CAT is unenforceable under *Brulotte*.

Dyax answered, denying Ares' four claims and bringing six counterclaims. Dyax's first counterclaim was for a declaratory judgment that *Brulotte* does not apply to Ares' royalty obligation. Its second counterclaim was for correction of the '298 Patent's inventorship under 35 U.S.C. § 256. Its third counterclaim was for a declaratory judgment that if Ares' royalty obligation is unenforceable under *Brulotte*, Ares must agree to amend the CLA to restore its original obligation. Its fourth counterclaim was for reformation of the CLA to restore the obligation. Its fifth counterclaim was for breach of the CLA based on Ares' potential refusal to pay full royalties. And its sixth counterclaim was for a declaratory judgment that Ares violated the implied covenant of good faith and fair dealing based on the same.

After a bench trial, the District Court found that Ares' royalty obligation was not unenforceable under *Brulotte*, denying Ares' first claim on the merits and granting Dyax's first counterclaim. The District Court described *Brulotte* as prohibiting "royalties . . . for practicing . . . licensed patents after they have expired." *Ares*, 2023 U.S. Dist. LEXIS 40484, at *65. It concluded that Ares' royalties are not charged "for post-expiration use of" the inventions covered by the CAT Patents for three reasons. *Id.* at *67. First, Ares conceded that it did not practice those inventions while developing Bavencio. Second, while "Dyax did likely use the CAT Patents, that use was entirely before expiration." *Id.* at *69. And third, the District Court observed that "any use of the CAT Patents by Ares Trading, before or after their expiration, would not have incurred any royalty obligation to Dyax under the CLA." *Id.* at *70. Instead, the District Court characterized Ares' royalty obligation as deferred compensation for Dyax's pre-expiration research involving phage display. In the alternative, the District Court

found that Ares' royalty obligation is not unenforceable because "[u]nder *Brulotte*, royalties may run until the latest-running patent covered in the parties' agreement expires." *Kimble v. Marvel Ent., LLC*, 576 U.S. 446, 454 (2015). Dyax licensed patents other than CAT's to Ares, including one patent that "will not expire until . . . 2028[,] . . . after the end of Ares Trading's ten-year royalty obligation to Dyax on sales of Bavencio." *Ares*, 2023 U.S. Dist. LEXIS 40484, at *72–73.

Because the District Court found that Ares' royalty obligation is not unenforceable under *Brulotte*, it denied as moot Ares' second claim and Dyax's third, fourth, fifth, and sixth counterclaims. It denied as moot Ares' fourth claim for a similar reason: Ares did not prove that Dyax's royalty obligation to CAT is unenforceable under *Brulotte*. Separately, it denied on the merits Ares' claim for a declaratory judgment that Dyax violated (or would violate) the covenant of good faith and fair dealing. And it denied on the merits Dyax's counterclaim regarding the '298 Patent's inventorship.

Ares now appeals the District Court's denial of its first and third claims on the merits, arguing that its royalty obligation is unenforceable under *Brulotte* and that Dyax has violated the covenant of good faith and fair dealing. It also asks us to remand for reconsideration of its second and fourth claims, which the District Court denied as moot. Dyax did not appeal from the denial of its counterclaim regarding the '298 Patent's inventorship.

II. JURISDICTION AND STANDARD OF REVIEW

We have a duty to determine whether an appeal falls within our jurisdiction. So we asked the parties to show cause why this appeal should not be transferred to the United States Court

of Appeals for the Federal Circuit. The Federal Circuit has “exclusive jurisdiction” over “appeal[s] from a final decision of a district court . . . in any civil action arising under, or in any civil action in which a party has asserted a compulsory counterclaim arising under, any Act of Congress relating to patents.” 28 U.S.C. § 1295(a)(1). After reviewing the parties’ letter briefs, we hold that we have jurisdiction because the parties did not bring any claims or compulsory counterclaims arising under the federal patent laws.

A. The Parties’ State Law Claims Do Not Raise “Substantial” Patent Issues.

Nine out of the parties’ ten claims and counterclaims—each of Ares’ claims, and each of Dyax’s counterclaims except regarding inventorship of the ’298 Patent—arise from Massachusetts contract law.³ Three of Ares’ claims are for declaratory judgment, “seek[ing] in essence to assert a defense” to an anticipated lawsuit for failing to pay royalties to Dyax. *Pub. Serv. Comm’n of Utah v. Wycoff Co.*, 344 U.S. 237, 248 (1952). Dyax’s “threatened cause of action” for Ares’ failure to pay royalties, which is what counts for determining our jurisdiction, would be for common-law breach of contract. *Id.* Two of Dyax’s counterclaims are also for declaratory judgment, mirroring Ares’ state law claims. Finally, Ares and Dyax seek reformation of the CLA, and Dyax asserts counterclaims for breach of contract and breach of the implied covenant of

³ Although not all ten claims and counterclaims are before us, we must examine all ten here. That is because we lack appellate jurisdiction “if either basis for the Federal Circuit’s exclusive jurisdiction was present in the district court, regardless of the claims brought on appeal.” *ABS Glob., Inc. v. Inguran, LLC*, 914 F.3d 1054, 1063 (7th Cir. 2019).

good faith and fair dealing, which are all “common-law causes of action.” *Dufficy Enters., Inc. v. Berarducci*, No. 1784CV03292, 2020 Mass. Super. LEXIS 1629, at *1 (June 7, 2020). Altogether, federal patent law does not create causes of action for these nine claims and counterclaims. So these claims and counterclaims “arise” under federal patent law only if the claimant’s “right to relief necessarily depends on resolution of a substantial question of federal patent law.” *Christianson v. Colt Indus. Operating Corp.*, 486 U.S. 800, 809 (1988).

In *Gunn v. Minton*, 568 U.S. 251 (2013), the Supreme Court clarified that a patent law question is “substantial” only if it is “importan[t] . . . to the federal system as a whole.” *Id.* at 260; see *FTC v. AbbVie Inc.*, 976 F.3d 327, 349–51 (3d Cir. 2020) (applying *Gunn* in determining whether an appeal fell under § 1295(a)(1)). The *Gunn* plaintiff brought a legal malpractice claim in state court, for which the cause of action was created by state law. 568 U.S. at 255. His claim arose from a patent infringement case that he lost. *Id.* Its resolution required a “case-within-a-case” patent law analysis because he argued that he “would have prevailed in his federal patent infringement case if only [his lawyers] had timely made an experimental-use argument on his behalf.” *Id.* at 259, 262. The Supreme Court held that this patent law issue was not substantial “to the federal system as a whole,” regardless of its importance to the parties. *Id.* at 260. “Because of the backward-looking nature of a legal malpractice claim,” the resolution of the issue would not affect the validity of any patents, nor would it alter the judgment in the prior infringement case. *Id.* at 261; see *AbbVie*, 976 F.3d at 349 (considering whether resolving a patent law issue would “change [a] settlement that resulted” from infringement lawsuits). And the resolution of the issue would have no effect on the uniformity of federal patent law

because the resolution would bind only the parties, not the federal courts. *Gunn*, 568 U.S. at 263.

By this logic, none of the parties' state law claims or counterclaims raise a "substantial" patent law issue. Some of their claims and counterclaims depend on the resolution of a patent law issue: whether Ares' royalty obligation is unenforceable under *Brulotte* because it prolongs the duration of the CAT Patents. *See Kimble*, 576 U.S. at 462 ("*Brulotte* is a patent . . . case[.]"). To resolve this issue, courts must "ask whether" the CLA "provides royalties for post-expiration use of" the inventions covered by the CAT Patents. *Id.* at 459. Ares and Dyax offer two competing "choices" for interpreting *Brulotte* "in this appeal." *AbbVie*, 976 F.3d at 350. Regardless of which interpretation we choose, the enforceability of Ares' royalty obligation under *Brulotte* is not a "substantial" patent law issue for both "general and case specific" reasons. *Id.* at 349.

First, Ares' interpretation of *Brulotte* does not require a case-within-a-case patent law analysis. Ares interprets *Brulotte* as applying where (1) a royalty obligation is exchanged for a patent license, and (2) the obligation continues undiminished after the licensed patent expires. According to Ares, *Brulotte* applies here because (1) Ares' royalty obligation was exchanged for licenses to the CAT Patents, and (2) it continued undiminished after the last CAT Patent expired. This proposed analysis sounds in contract law, not patent law. It does not require, for example, construing the CAT Patents' claims or determining whether Ares has practiced the CAT Patents. Instead, it requires only interpreting the CLA's terms and determining what Ares' royalty obligation was exchanged for. *See* Opening Br. 28–29 (emphasizing that Ares' test would not require a "complicated infringement case that could include extensive factual development, claim construction, and expert

testimony” that could be “the equivalent of a patent infringement trial”). Thus, resolving this appeal according to Ares’ interpretation would not affect patent rights retroactively or “undermine the uniformity of federal patent law” prospectively because it would not require any analysis of the CAT Patents *qua* patents.⁴ *AbbVie*, 976 F.3d at 349.

Second, Dyax’s interpretation of *Brulotte* likewise does not require a case-within-a-case patent law analysis in this appeal. According to Dyax, *Brulotte* prohibits charging royalties that “arise from practicing” inventions after their patents expire. Answering Br. 38. So *Brulotte* is implicated only if Ares’ royalty obligation arises from post-expiration use of the inventions covered by the CAT Patents. Ares’ obligation arises from sales of “Therapeutic Antibody Products.” Based only on that phrase’s definition in the CLA and “the definitions that flow from it,” *Ares*, 2023 U.S. Dist. LEXIS 40484, at *28, the

⁴ The District Court found, in the alternative, that Dyax would prevail under Ares’ interpretation. Specifically, it found that Ares’ royalty obligation was exchanged for licenses to both the CAT and Dyax Patents and that one of the Dyax Patents will expire after Ares’ royalty obligation terminates. Because “royalties may run until the latest-running patent covered in the parties’ agreement expires,” the District Court concluded that the royalty obligation was not unenforceable even under Ares’ interpretation. *Kimble*, 576 U.S. at 454. If we were to address this alternative argument, it would require only contract law analysis, not patent law analysis. It would turn on what Ares’ royalty obligation was exchanged for—licenses to only the CAT Patents, or licenses to both the CAT and Dyax Patents—not on construing claims or determining the validity of the Dyax Patents.

District Court found that “*any* use of the CAT Patents by Ares Trading, before or after their expiration, would not have incurred any royalty obligation to Dyax under the CLA,” *id.* at *70 (emphasis added). Ares does not dispute this finding on appeal. So if we apply Dyax’s interpretation of *Brulotte*, we need not engage in any patent law analysis of the CAT Patents. It is undisputed that Ares’ royalty obligation does not arise from its post-expiration use of the inventions covered by the CAT Patents.

However, Dyax’s interpretation of *Brulotte* may require complicated infringement-style analyses in future cases. If parties dispute whether a royalty obligation arises from practicing an invention, courts may be required “to conduct a burdensome trial-within-a-trial on infringement of expired patents to determine whether *Brulotte* applies.” Reply Br. 10. But that possibility does not affect our jurisdiction over this appeal. We must determine our jurisdiction only over this appeal, not over every possible case raising *Brulotte* issues. *See AbbVie*, 976 F.3d at 350 (holding “that our decision in *this* appeal will have limited effect on the uniformity of patent law” (emphasis added)); *Xitronix Corp. v. KLA-Tencor Corp.*, 882 F.3d 1075, 1078 (Fed. Cir. 2018) (anticipating whether “[p]atent claims will . . . be invalidated or revived based on the result of *this* case” (emphasis added)).

Ultimately, the only patent law issue raised on appeal is whether Ares’ royalty obligation conflicts with the federal patent laws under *Brulotte*. The result of resolving this issue will be that Ares’ obligation is or is not enforceable, affecting only the operation of state contract law. Thus, the *Brulotte* issue here is not sufficiently important “to the federal [patent] system as a whole” to trigger the Federal Circuit’s jurisdiction. *Gunn*, 568 U.S. at 260. Our resolution will not affect core sub-

stantive areas of patent law like patentability, infringement, or remedies. *See Merrell Dow Pharms. Inc. v. Thompson*, 478 U.S. 804, 814 n.12 (1986) (suggesting that the “*nature* of the federal interest at stake” governs whether a legal question is important to the federal system as a whole); *see also Xitronix Corp. v. KLA-Tencor Corp.*, 916 F.3d 429, 441 (5th Cir. 2019) (observing that *Gunn* illustrated its concept of “substantial” federal issues by citing to cases that “put the legality of a federal action in question,” such as “the validity of a foreclosure . . . by the IRS” and “the constitutionality of” federal bonds). So these nine claims and counterclaims, for which the federal patent laws do not create causes of action, do not divest us of jurisdiction.

B. Dyax’s Counterclaim Regarding the ’298 Patent Was Not Compulsory.

Dyax’s counterclaim regarding the ’298 Patent’s inventorship clearly arises under the federal patent laws, which create the cause of action for this claim. *See* 35 U.S.C. § 256(b) (“The court before which such matter is called in question may order correction of the patent on notice and hearing of all parties concerned[.]”). When a cause of action is created by the federal patent laws, the claim it supports arises under them. *Cf. Gunn*, 568 U.S. at 257 (“[A] case arises under federal law when federal law creates the cause of action asserted.”).

However, this counterclaim does not defeat our jurisdiction because it was not “compulsory.”⁵ 28 U.S.C. § 1295(a)(1). A

⁵ Because we conclude that this counterclaim was not compulsory, we need not address Ares’ alternative argument that this claim was not a true “counterclaim,” insofar as it was brought

compulsory counterclaim “arises out of the transaction or occurrence that is the subject matter of the opposing party’s claim.” Fed. R. Civ. P. 13(a)(1)(A). We have held that a defendant’s counterclaim arises out of the same transaction or occurrence as a plaintiff’s claim if the two have a “logical relationship.” *M.R. v. Ridley Sch. Dist.*, 744 F.3d 112, 121 (3d Cir. 2014). We introduced this standard in *Great Lakes Rubber Corp. v. Herbert Cooper Co.*, stating that “a counterclaim is logically related to the opposing party’s claim where separate trials on each of their respective claims would involve a substantial duplication of effort and time by the parties and the courts.” 286 F.2d 631, 634 (3d Cir. 1961). This standard is satisfied “[w]here multiple claims involve many of the same factual issues, or the same factual and legal issues, or where they are offshoots of the same basic controversy between the parties.” *Id.*

A separate trial on Dyax’s counterclaim regarding the ’298 Patent would not have required a substantial duplication of effort and time because it raised different factual and legal issues than the enforceability of Ares’ obligation under *Brulotte*. As Ares noted in its letter brief, Dyax had a legal theory that connected the ’298 Patent to *Brulotte*. Dyax’s theory was that the ’298 Patent is “covered” by Section 5.1(e) of the CLA, which states that Ares “shall own all inventions, discoveries and results made by or on behalf of [Ares] in exercising its rights under this Agreement.” App. 4176. The “Product Inventions” covered by Section 5.1(e) include “any Dyax Antibodies,” a Dyax Antibody being “any Antibody or [frag-

against a third party that was not named in Ares’ complaint. *See* Fed R. Civ. P. 13(a)(1) (defining a compulsory counterclaim as one brought against an “opposing party”).

ment] that is delivered by Dyax to [Ares] . . . and any variant, modification or derivative of such Antibody or [fragment] that is identified or developed by [Ares].” App. 4176, 4153. Dyax argued that Section 5.1(e) covers the ’298 Patent because the patent “encompasses” Dyax Antibodies, including both “parent antibodies that Dyax provided Ares” and “the modified antibody that Ares purports to have derived from the parent antibodies.” App. 3916. Because the ’298 Patent will not expire before Ares’ royalty obligation terminates, Dyax concluded that the obligation was not unenforceable under *Brulotte*, which “permits royalties to ‘run until the latest-running patent covered in the parties’ agreement expires.’” *Id.* (emphasis added) (quoting *Kimble*, 576 U.S. at 454).

But Dyax’s theory did not depend on whether a Dyax scientist should have been credited as an inventor of the ’298 Patent. Section 5.1(e) covers “all inventions” made solely “by” Ares “in exercising its rights under” the CLA, not only inventions made “on behalf of” Ares by Dyax scientists. App. 4176 (emphasis added). So Section 5.1(e) “covers” the ’298 Patent in *Kimble*’s sense regardless of its inventorship. Indeed, the District Court found that “[t]he inventions claimed in [the ’298 Patent] are Product Inventions as defined in Section 5.1(e)” and that “Dyax granted to Ares Trading an irrevocable assignment of all of its right, title and interest in” the ’298 Patent thereby, *Ares*, 2023 U.S. Dist. LEXIS 40484, at *59, despite concluding that Dyax did not carry its burden of showing that its scientist should be named as an inventor. Thus, the question of whether Dyax’s scientist should be named as an inventor involved wholly different “factual and legal issues” than the enforceability of Ares’ royalty obligation under *Brulotte*. *Great Lakes Rubber*, 286 F.2d at 634. The former depended on the minute details of a Dyax scientist’s “choices or inventive

acts,” *Ares*, 2023 U.S. Dist. LEXIS 40484, at *87, and the significance of her “contributions . . . when ‘measured against the dimension of the full invention,’” *id.* at *88 (quoting *Fina Oil & Chem. Co. v. Ewen*, 123 F.3d 1466, 1473 (Fed. Cir. 1997)). The latter did not depend on these factual and legal issues because whether Section 5.1(e) “covered” the ’298 Patent in *Kimble*’s sense did not depend on Dyax’s contributions to Bavencio’s invention.

Altogether, there may be a “logical relationship” between the parties’ *Brulotte* arguments and the ’298 Patent generally. But there is no such relationship between their *Brulotte* arguments and Dyax’s correction-of-inventorship counterclaim. The factual and legal issues underlying the latter are unrelated to those underlying the former, such that separate trials would not have resulted in a “substantial duplication” of the parties’ efforts. *Great Lakes Rubber*, 286 F.2d at 634. So Dyax’s counterclaim was not “compulsory” and does not divest us of jurisdiction under § 1295(a)(1).

* * *

We therefore have appellate jurisdiction under 28 U.S.C. § 1291.⁶ We review the District Court’s “determin[ation] [of] the meaning of . . . contract language” for clear error. *In re Nat’l Collegiate Student Loan Trusts 2003-1, 2004-1, 2004-2, 2005-1, 2005-2, 2005-3*, 971 F.3d 433, 443 (3d Cir. 2020). But

⁶ The District Court, for its part, had jurisdiction over the parties’ state law claims and counterclaims under 28 U.S.C. § 1332(a)(2), and over Dyax’s patent law counterclaim under 28 U.S.C. §§ 1331 and 1338(a).

we review its “determin[ation] [of] the legal effect and consequences of [the] contractual provisions” de novo. *Id.*

Under Massachusetts law, which governs the CLA, Ares bears the burden of proving that its royalty obligation is unenforceable. See *TAL Fin. Corp. v. CSC Consulting, Inc.*, 844 N.E.2d 1085, 1092 (Mass. 2006) (“The burden of proof regarding the enforceability of a . . . clause . . . rest[s] squarely on the party seeking to set it aside.”). Ares must show that its obligation conflicts with the federal patent laws, such that “enforcement of [its] contract to pay royalties” is preempted. *Aronson v. Quick Point Pencil Co.*, 440 U.S. 257, 258–59, 262 (1979). But the Supreme Court has cautioned “that a court should not find pre-emption too readily in the absence of clear evidence of a conflict.” *Geier v. Am. Honda Motor Co.*, 529 U.S. 861, 885 (2000).

III. DISCUSSION

A. *Brulotte*’s “Simple” Rule Does Not Apply to Ares’ Royalty Obligation.

Brulotte was based on federal policy favoring limited durations for patent monopolies. Royalty obligations that conflict with this policy—by restricting a patent licensee’s use of inventions after their licensed patents expire—are unenforceable due to “obstacle” preemption. If a royalty obligation is calculated based on activity requiring such post-expiration use, it restricts such use on its face and *Brulotte* applies. Ares’ royalty obligation is not calculated based on activity requiring post-expiration use of inventions covered by the CAT Patents, so *Brulotte* does not apply.

1. Federal Policy, Obstacle Preemption, and *Scott Paper*

The Constitution empowers Congress to “secur[e] for limited Times to . . . Inventors the exclusive Right to their . . . Discoveries.” U.S. Const. art. I, § 8, cl. 8. Congress has exercised that power by enacting federal patent laws. Under 35 U.S.C. § 154(a)(1), “[e]very patent shall contain . . . a grant to the patentee . . . of the right to exclude others from making, using, offering for sale, or selling [his] invention.” This right to exclude is limited in important respects. As relevant here, the right lasts for a limited duration—20 years—after which the public is free to use the invention. *Id.* § 154(a)(2). This temporal limitation is critical to federal patent policy. “From their inception, the federal patent laws have embodied a careful balance between the need to promote innovation and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy.” *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989). By granting inventors a monopoly over the use of their inventions, Congress encourages inventors to innovate. By limiting the duration of that monopoly, Congress allows members of the public to compete with and improve upon the works of inventors, using formerly patented inventions “as the building blocks of further innovation.” *Id.* at 151. Thus, a central objective of the federal patent laws is “that after the expiration of a federal patent, the subject matter of the patent passes to the free use of the public.” *Id.* at 152.

The Supreme Court has declared that a state law is preempted if it “stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.” *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941). This doctrine of

“obstacle” preemption applies to the patent laws, just as it does “in other fields” of federal law. *Aronson*, 440 U.S. at 262. Consistent with this doctrine, the Supreme Court has repeatedly declared unenforceable state law restrictions on the free use of formerly patented and unpatentable inventions, insofar as they conflict with congressional objectives like temporally limiting patent monopolies. *See Kimble*, 576 U.S. at 451–52 (collecting cases).

For example, the Supreme Court “carefully guarded [the] cut-off date” of a patent monopoly, *id.* at 451, in *Scott Paper Co. v. Marcalus Mfg. Co.*, 326 U.S. 249 (1945). There, the assignee of a patent sued its assignor’s company for using a machine that allegedly infringed the patent. *Id.* at 250–51. The assignor’s company responded that its machine was an identical copy of an invention covered by a different, expired patent, such that it could not infringe the assigned patent. *Id.* at 251. The assignee argued that the assignor’s company was estopped from raising that defense based on the fact of the assignment. *Id.* at 251–52. The Court disagreed, holding that applying the common-law doctrine of estoppel would “penalize the [company’s] use of the invention of an expired patent.” *Id.* at 254. The Court emphasized that the patent laws are designed such “that members of the public shall be free to manufacture the product . . . disclosed by the expired patent” and “that the consuming public at large . . . receive[s] the benefits of the unrestricted exploitation” of the formerly patented invention. *Id.* at 255. Thus, the Court concluded that no one can lawfully “restrict himself, by express contract, or by any action which would give rise to an ‘estoppel,’ from using the invention of an expired patent.” *Id.* at 255–56. Allowing even one member of the public to restrict himself in this way would “deprive the public of the benefits of the free use of the invention,” thereby

conflicting with “the policy and purpose of the patent laws.” *Id.* at 256. Given the strength of the federal policy favoring limited patent duration, the Court clarified that “any attempted reservation or continuation in the patentee . . . of the patent monopoly[] after the patent expires, whatever the legal device employed,” conflicts with that policy and is unenforceable. *Id.*

2. *Brulotte*

The Supreme Court’s decision in *Brulotte* “was brewed in the same barrel” as decisions like *Scott Paper. Kimble*, 576 U.S. at 452. The *Brulotte* Court declared a royalty obligation unenforceable because it conflicted with the federal policy favoring limited patent duration. 379 U.S. at 29–34. Respondent Thys owned twelve patents, seven of which covered inventions that were incorporated into a machine for picking hops. *Id.* at 29–30. It licensed the twelve patents and the right to use the machine to farmers. *Id.* at 29. In exchange, the farmers agreed to pay an annual royalty, calculated based on the amount of hops harvested with the machine but subject to a mandatory minimum. *Id.* (“Under [the] license there is payable a minimum royalty of \$500 for each hop-picking season or \$3.33 1/3 per 200 pounds of dried hops harvested by the machine, whichever is greater.”). Before the license and its royalty obligation terminated, the patents covering the seven inventions incorporated into the machine expired. *Id.* at 30. But one of the five licensed “patent[s] whose mechanism was not incorporated in the[] machines” had not expired. *Id.* at 30 n.2.

The Supreme Court held that the royalty obligation was unenforceable “after expiration of the last of the patents incorporated in the machines” because it restricted the farmers’ free use of those formerly patented inventions. *Id.* at 33–34. The Court justified its holding by observing that the Constitution

empowers Congress “to secure ‘for limited times’ to inventors ‘the exclusive right’ to their discoveries” and that Congress had exercised its power by granting patents to inventors for limited durations. *Id.* at 30 (quoting U.S. Const. art. I, § 8, cl. 8). After a patent expires, members of the public are free to use the formerly patented invention without restriction. *Id.* at 31. The farmers’ royalty obligation conflicted with that policy because it was calculated based on the “use of a machine . . . after expiration of the last of the patents incorporated” therein. *Id.* at 33–34. On its face, the obligation hindered the farmers from using the incorporated inventions after their patents expired. *Id.* at 31 (“The royalty payments due for the post-expiration period are *by their terms* for use during that period.” (emphasis added)).

The Court cited *Scott Paper* in describing the strength of the federal policy that inventions “become public property once” their patents expire. *Id.* at 31. It described this policy as so weighty that it conflicts with “attempt[s]” to prolong patent monopolies, not only royalties that hinder post-expiration use in practice. *Id.* (quoting *Scott Paper*, 326 U.S. at 256). Thereafter, the Court twice described the farmers’ royalty obligation as an “attempt” to extract payments for the post-expiration use of the inventions incorporated into the hop-picking machine. *Id.* at 32, 34.

3. *Kimble*

Brulotte was “severely . . . criticized” by lower courts. *Scheiber v. Dolby Lab ’ys, Inc.*, 293 F.3d 1014, 1017 (7th Cir. 2002). In *Kimble*, the Supreme Court granted certiorari solely to determine whether to overrule *Brulotte*. 576 U.S. at 449. The Court upheld *Brulotte* on stare decisis grounds. *Id.* In doing so, it clarified the scope of *Brulotte*’s rule.

Kimble received a patent on a toy that allowed users to shoot foam string from their hands. *Id.* He sued Marvel for patent infringement after it marketed a “Web Blaster” that allowed users to shoot “webs” from their hands like Spider-Man. *Id.* at 450. Kimble and Marvel settled their dispute, with Kimble selling his patent to Marvel in exchange for a 3% royalty on Marvel’s sales of the Web Blaster and any other products that would infringe the patent. *Id.* The Ninth Circuit held that this royalty was unenforceable under *Brulotte* after the expiration of Kimble’s patent. *Id.* at 450–51.

The *Kimble* Court characterized *Brulotte* as involving a conflict between federal patent policy and agreements that restrict the use of inventions after their patents expire. Under the patent laws, “[w]hile a patent lasts, the patentee possesses exclusive rights to the patented article—rights he may sell or license for royalty payments if he so chooses.” *Id.* at 451. But after “the patent expires, the patentee’s prerogatives expire too, and the right to make or use the article, free from all restriction, passes to the public.” *Id.* A corollary of that principle is that a member of the public cannot agree to limit his use of an invention after its patent expires. *See id.* at 453 (noting that “[a]ny attempt to limit a licensee’s post-expiration use of the invention” is unenforceable); *see also id.* (“[E]very person can make free use of a formerly patented product.”); *id.* at 458 (“[T]his Court has continued to draw from [35 U.S.C. § 154] a broad policy favoring unrestricted use of an invention after its patent’s expiration.”). According to the *Kimble* Court, *Brulotte* “is simplicity itself to apply.” *Id.* at 459. “A court need only ask whether a licensing agreement provides royalties for post-expiration use of a patent. If not, no problem; if so, no dice.” *Id.*

4. Three Observations About *Brulotte*'s Simple Rule

We understand *Kimble*'s definition of *Brulotte*'s rule as follows: (i) “post-expiration use” refers to practicing inventions after their patents expire—acts that would have infringed the patents pre-expiration; (ii) to determine whether a royalty is “provided for” post-expiration use, courts must determine whether the royalty is calculated based on activity requiring post-expiration use; and (iii) a royalty may be calculated based on activity requiring post-expiration use even if the royalty’s value does not vary with that use. These three observations are well-supported in *Scott Paper*, *Brulotte*, and *Kimble*.

i. “Post-expiration use” denotes the practice of formerly patented inventions. As the Brulotte Court noted, “[t]he right to make, the right to sell, and the right to use” an invention pass to the public when the invention’s patent expires. 379 U.S. at 31. Collectively, these rights constitute the broader right to practice an invention—to use it in ways that would have infringed its patent pre-expiration. See 35 U.S.C. §§ 154(a)(1), 271(a). According to the Kimble Court, Brulotte applies to royalty obligations that restrict this right because such royalties extend a patent holder’s monopoly beyond the life of the patent. 576 U.S. at 458 (“Scott Paper—the decision on which Brulotte primarily relied—remains good law. So too do this Court’s other decisions refusing to enforce either state laws or private contracts constraining individuals’ free use of formerly patented . . . discoveries.”). So when the Court speaks of federal policy favoring unrestricted “post-expiration use,” it refers to the practice of inventions after their patents expire.

ii. Royalties are “provided for” post-expiration use when they are calculated based on activity requiring that use. A “royalty” is “[a] payment . . . made to an author or inventor for

each copy of a work or article sold under a copyright or patent.” *Royalty*, Black’s Law Dictionary (9th ed. 2009) (emphasis added). That is, a royalty is commonly understood as a payment for the right to engage in the activity on which the payment is calculated (“often” for the right to “ma[ke], use[], or s[ell]” an “item”). *Id.* So to determine whether royalties are “provided for” post-expiration use, courts must determine whether payments are calculated based on activity requiring post-expiration use. This understanding of what royalties are “provided for” fits the facts in *Brulotte*, where royalties were calculated based on the amount of hops harvested with “the machine,” not based on hops harvested by other means. 379 U.S. at 29. The royalties were therefore calculated based on activity requiring post-expiration use of the seven inventions incorporated into the machine. They were calculated based on the harvesting of hops, which required using the machine, which in turn required practicing the formerly patented inventions incorporated into the machine.

This understanding of what royalties are “provided for” also coheres with federal patent policy. *Brulotte* applies to royalty obligations that “restrict free access to formerly patented . . . inventions” and conflict with federal policy thereby. *Kimble*, 576 U.S. at 451. If a royalty obligation is calculated based on activity requiring post-expiration use, it restricts post-expiration use on its face by requiring payment for that use, conflicting with federal policy favoring unrestricted post-expiration use and thus implicating *Brulotte*. Insofar as the royalties in *Brulotte* were calculated based on hops harvested with the machine, they restricted use of the seven inventions incorporated into the machine “for the post-expiration period.” 379 U.S. at 31. But if royalties are not calculated based on activity requiring post-expiration use, they do not hinder post-

expiration use “on their face” and *Brulotte* is not implicated. *Id.* at 32.⁷

iii. A payment may be calculated based on post-expiration use on its face, even if its value does not vary with that use in practice. Royalties that are calculated based on activity requiring post-expiration use will typically vary with the extent of that use in practice. In part, that was the case in *Brulotte*. If a farmer used his hop-picking machine more often and picked more hops, thereby using the inventions incorporated into the machine more often, his royalty obligation increased. *Id.* at 29.

⁷ Dyax would not use the word “calculated” to define *Brulotte*’s rule. That is because the farmers’ royalty obligation was not calculated *directly* based on their use of the hop-picking machine. It was calculated *indirectly* based on that use, insofar as it was calculated based on the amount of hops they harvested with their machines. Our description of *Brulotte*’s rule captures this distinction, despite using the word “calculated,” because it turns on whether royalties are calculated based on activity requiring post-expiration use, regardless of whether they are calculated *directly* based on that use. Consider an example that Ares uses in its brief: “a patent owner . . . say[s] that in exchange for a license to a patent covering tires, a company has to pay it one dollar for every car sold with windshield wipers for the next 30 years.” Opening Br. 23. Assuming that the cars sold with windshield wipers require use of an invention covered by the tire patent, this royalty would fall under our definition of *Brulotte*’s rule, even if it would not be calculated directly based on tire sales. It would be calculated based on activity requiring patent usage, insofar as the cars sold with windshield wipers are necessarily sold with the patented tires.

But a payment may also be calculated based on activity requiring post-expiration use even if its value does not vary with the extent of that use. That was also the case in *Brulotte*. A farmer’s annual payment varied with post-expiration use only if it exceeded a \$500 minimum. *Id.* For one farmer, Charvet, the payment obligation for the post-expiration period consisted entirely of \$500 minimums. *Id.* at 37 n.2 (Harlan, J., dissenting) (“Petitioner Charvet was indebted to Thys only to the extent of the minimums.”). Thus, his obligation did not vary with his post-expiration use of the inventions incorporated into the machine.

Nevertheless, Charvet’s payment obligation was calculated based on post-expiration use. The \$500 minimum was expressly designed to approximate the minimum value of using the hop-picking machine for one year, regardless of the amount of hops harvested. *See Thys Co. v. Brulotte*, 382 P.2d 271, 272 (Wash. 1963) (“[A] minimum royalty of \$500 per year was to be paid *for the use of each machine.*” (emphasis added)), *rev’d*, 379 U.S. 29; *Brulotte*, 379 U.S. at 31 (“The royalty payments due for the post-expiration period are *by their terms* for use during that period, and are not deferred payments for use during the pre-expiration period.” (emphasis added)). This understanding of the \$500 minimums—that they were calculated *ex ante* based on the value of using the machine, including in the post-expiration period—is confirmed by the text of the contract. *See* Appendix to Petition for Writ of Certiorari at 44a, *Brulotte*, 379 U.S. 29 (No. 20). The contract permitted “equitable adjustment[s]” to the \$500 minimums “if it shall be impossible . . . to use any such machine during any part of a particular picking season because of a serious breakdown.” *Id.* This provision confirms that the \$500 minimums were calculated based on the value of using the “machines for [each] pick-

ing season,” including post-expiration seasons, because the minimums could be reduced if the machines were unusable.⁸ *Id.*

Thus, the farmers’ contracts were unenforceable “insofar as [they] allow[ed] royalties to be collected which accrued after the last of the patents incorporated into the machines ha[d] expired.” *Brulotte*, 379 U.S. at 30. Regardless of whether a farmer’s payment obligation *varied* based on his post-expiration use of his machine, it was *calculated* based on activity requiring that use. Such obligations are unenforceable obstacles to federal patent policy because Congress intended for members of the public to use inventions free of all payment obligations after their patents expire. *Id.* at 31 (recognizing that restrictions on post-expiration use are unenforceable, “whatever the legal device employed,” including “attempted” restrictions (quoting *Scott Paper*, 326 U.S. at 256)).

⁸ Ares misunderstands the significance of the \$500 minimums in *Brulotte*. At oral argument, Ares compared itself to Charvet because just as he “could have been using [the hop-picking machine] and paying . . . royalties,” so “tomorrow, could [Ares] use the CAT patents for something.” Oral Arg. Tr. 62:13–15. The \$500 minimums were not unenforceable merely because post-expiration use of the machine was possible. They were unenforceable because their value was expressly calculated based on contemplated post-expiration use. Ares’ royalty obligation is comparable to Charvet’s only if it is calculated based on activity requiring post-expiration use of inventions covered by the CAT Patents.

* * *

Combining these observations, *Brulotte* requires courts to determine whether patent licensing agreements provide royalties that are calculated based on activity requiring post-expiration use of inventions covered by the licensed patents. Here, the CLA is the licensing agreement, Section 4.6 is the royalty obligation, and (according to Ares) the CAT Patents are the relevant licensed patents. If Ares' payments to Dyax are calculated based on activity requiring post-expiration use of inventions covered by the CAT Patents—regardless of whether the payments vary with that use in practice—then *Brulotte* may apply. “If not, no problem[.]” *Kimble*, 576 U.S. at 459.

5. Ares' Royalty Obligation

Brulotte does not apply here because Ares' royalty obligation is not calculated based on activity requiring post-expiration use of inventions covered by the CAT Patents. Ares' royalty obligation is calculated based on sales of “Therapeutic Antibody Products.” App. 4172. That phrase covers “any preparation which is intended . . . for the treatment or prevention of disease, infection or other condition in humans, which contains, comprises, or the process of development or manufacture of which utilizes a Dyax Antibody.” App. 4158. “Dyax Antibody” is defined as “any Antibody or [fragment] that is delivered by Dyax to [Ares] in connection with the Research Program.” App. 4153. Combining these definitions, Ares' royalty obligation is calculated based on sales of drugs that Ares develops from antibodies that Dyax discovers using phage display.

Sales of Therapeutic Antibody Products do not require post-expiration use of the inventions covered by the CAT

Patents. The CLA’s definition of “Therapeutic Antibody Product” does not refer to the CAT Patents, nor do “any of the definitions that flow from it.” *Ares*, 2023 U.S. Dist. LEXIS 40484, at *28. Ares’ witness, Jens Eckhardt, conceded as much at trial. Counsel for Dyax asked Eckhardt to confirm that “the definition of what products the royalty is owed on . . . does not depend in any way on using the CAT patents.” App. 2532. Eckhardt responded “[r]ight,” without qualification. App. 2533. This testimony was consistent with Eckhardt’s deposition, along with the testimony of other witnesses at trial. *See* App. 7083 (responding that it is “correct” that Ares’ “royalties . . . don’t depend on using the CAT patents”); App. 3224; App. 3619. Eckhardt’s testimony is further corroborated by Ares’ admission that “it never practiced the expired CAT Patents to develop Bavencio” and the fact that Dyax’s “use [of] the CAT Patents” under the CLA occurred “entirely before expiration,” which together confirm that sales of Therapeutic Antibody Products do not require post-expiration use of inventions covered by the CAT Patents.⁹ *Ares*, 2023 U.S. Dist. LEXIS 40484,

⁹ Ares concedes that the manufacture and sale of Bavencio do not practice the inventions covered by the CAT Patents, so we need not consider whether Bavencio practices those inventions merely because it was discovered using phage display. In any event, we doubt that it does. The Federal Circuit has held that a “drug product” like Bavencio infringes patents covering “research processes” like phage display only if the relevant process is “used directly in the manufacture of the product, and not merely as a predicate process to identify the product to be manufactured.” *Bayer AG v. Housey Pharms., Inc.*, 340 F.3d 1367, 1377–78 (Fed. Cir. 2003); *see* 35 U.S.C. § 271(g). Ares has not alleged that it uses phage display directly in Bavencio’s

at *69. As a result, Ares' royalty obligation is not calculated based on activity requiring such post-expiration use and *Brulotte* is not implicated.¹⁰

B. Ares' Counterarguments Fail.

Ares raises several counterarguments to our understanding of *Brulotte*, but none is successful.

manufacture, so it is unlikely that Bavencio's manufacture uses the inventions covered by the CAT Patents. *See* Part III.A.4, *supra* (defining "use" as "acts that would have infringed the patents pre-expiration").

¹⁰ Eckhardt's testimony did not foreclose the possibility that Ares' development of a Therapeutic Antibody Product other than Bavencio could have resulted from post-expiration use of inventions covered by the CAT Patents. Thus, it seems possible that Ares' royalty obligation could have arisen from post-expiration use of those inventions, even though its obligation on sales of Bavencio did not result from such use. But even so, Ares' royalty obligation does not run afoul of *Brulotte* because it does not *necessarily* result from such use. The royalties in *Brulotte* were calculated based on activity that necessitated post-expiration use of the inventions incorporated into the hop-picking machines. We are bound to faithfully apply *Brulotte*, but we need not expand its sweep, nor do the parties ask us to do so. And under *Brulotte*, we do not view a remote possibility of restricted post-expiration use as constituting "clear evidence" that a royalty obligation conflicts with federal policy favoring limited patent duration, such that enforcement is preempted. *Geier*, 529 U.S. at 885.

1. Post-Expiration Use

First, Ares proffers a different interpretation of “use” in *Brulotte* and *Kimble*. It interprets *Brulotte* as applying when a royalty obligation that is exchanged for a patent license survives undiminished into the post-expiration period:

[A] royalty provision that draws no distinction between the royalty owed before the expiration of the licensed patents and the royalty payable after the expiration of the licensed patents is unlawful regardless of whether the post-expiration royalty is calculated directly based on activity within the scope of the patent or indirectly.

Opening Br. 23.

This covers Ares’ royalty obligation because, according to Ares, the “licensed patents” relevant to its obligation are the CAT Patents. First, Ares notes that to commercialize a Therapeutic Antibody Product, it must (through Dyax) complete CAT Gatekeeping, after which it receives a target-related commercial license to the CAT Patents. Thus, Ares’ royalty obligation is conditioned on its licensing of the CAT Patents. Second, the duration of Ares’ royalty obligation is expressly tied to the lifespan of the CAT Patents. For these reasons, Ares asserts that its obligation was exchanged for licenses to the CAT Patents. And because Ares’ obligation is identical before and after the CAT Patents’ expiration, Ares concludes that it is unenforceable under *Brulotte*, regardless of whether it is calculated based on Ares’ use of inventions covered by the CAT Patents. *See Brulotte*, 379 U.S. at 32 (focusing on whether contracts “exact the same terms and conditions for the period after

the patents have expired as they do for the monopoly period”). Thus, Ares contends that *Kimble* uses the phrase “post-expiration use” “in the sense of the royalty being paid [post-expiration] in exchange for a license to the patent.” Opening Br. 24 (emphasis omitted).

We disagree with Ares’ expansive interpretation of *Brulotte*, which is inconsistent with *Brulotte*’s facts and the federal policy that animated it.¹¹ Ares’ interpretation is inconsistent with *Brulotte*’s facts because there, the farmers’ royalty obligations were exchanged for licenses to “various patents for hop-picking,” including some patents that were not “incorporated into the [hop-picking] machines.” 379 U.S. at 29–30. One of the licensed patents had not expired before the royalty obligation terminated. *Id.* at 30 n.2. Under Ares’ interpretation, this unexpired patent would qualify as one of the “licensed patents” relevant to the farmers’ royalty obligation because the latter was exchanged, in part, for a license to the former. But as we have previously mentioned, the Supreme Court has clarified that a royalty obligation “may run until the latest-running patent covered in the parties’ agreement expires.” *Kimble*, 576 U.S. at 454. Ares’ interpretation implies that *Brulotte* was wrongly decided because the farmers’ royalties were paid “*in exchange for* a license to” an unexpired patent. Opening Br. 24. To make sense of *Brulotte*, it is instead necessary to con-

¹¹ Because we conclude that *Brulotte* does not apply to Ares’ royalty obligation, we need not address the District Court’s alternative finding that even under Ares’ interpretation of *Brulotte*, its royalty obligation is not unenforceable. We also need not address whether the District Court correctly described Ares’ obligation as deferred compensation for Dyax’s pre-expiration performance of phage display.

sider how the farmers' royalties were calculated: The royalties were unenforceable because they were calculated based on activity requiring use of the hop-picking machine, which incorporated only inventions whose patents expired before the royalties terminated.

In addition, Ares' interpretation is a poor fit for the federal policy on which *Brulotte* was based—the policy favoring temporarily limited patent monopolies. Even if Ares' royalty obligation was exchanged for licenses to the CAT Patents, it does not conflict with this policy. It does not prolong the duration of the CAT Patents because sales of Therapeutic Antibody Products do not require using inventions covered by the CAT Patents. “Indeed, any use of the CAT Patents by Ares Trading, before or after their expiration, would not have incurred any royalty obligation to Dyax under the CLA.” *Ares*, 2023 U.S. Dist. LEXIS 40484, at *70.

Instead, Ares' real gripe is that its royalty obligation conflicts with a different policy embodied in the federal patent laws—favoring limitations on the substantive “scope” of the patent monopoly, not only on its duration. At several points in its briefing, Ares suggests that Dyax leveraged the CAT Patents “not only beyond [their] expiration date but also beyond [their] scope.” Opening Br. 17. Ares' concern is that Dyax has enlarged the scope of the CAT Patents' subject matter by using its leverage to extract royalties on sales of Bavencio, which do not practice the inventions covered by the CAT Patents. But *Brulotte* does not apply to patent misuse involving the enlargement of a patent's scope. It deals only with attempts to prolong a patent's duration—its “cut-off date”—not attempts to defy “the patent laws' subject-matter limits.” *Kimble*, 576 U.S. at 451. Other patent misuse doctrines cover the improper enlargement of a patent's scope, such as the

doctrine of “patent tying agreements.” *Id.* at 458 n.4; *see, e.g., Zenith Radio Corp. v. Hazeltine Rsch., Inc.*, 395 U.S. 100, 134–38 (1969).¹² As Ares conceded at oral argument, it did not include any such patent misuse theories in its complaint. *See* Oral Arg. Tr. 11:17–23 (responding that it is “[c]orrect” that “[n]owhere in the complaint does it allege patent misuse on a physical expansion or expansion of scope of the patent”). So we must consider only the duration of the CAT Patents under *Brulotte*. Because Ares’ royalty obligation is not calculated based on activity requiring post-expiration use of inventions covered by the CAT Patents, we conclude that it does not improperly prolong the CAT Patents’ duration.

2. *Kimble*’s Facts

Next, Ares contends that our understanding of *Brulotte* conflicts with the facts in *Kimble*. It argues that the royalties in *Kimble* were triggered by sales of Marvel’s Web Blaster,

¹² True, *Brulotte* discusses in general terms the negotiating leverage held by a patent owner. *See, e.g.*, 379 U.S. at 32 (“We are . . . unable to conjecture what the bargaining position of the parties might have been and what resultant arrangement might have emerged had the provision for post-expiration royalties been divorced from the patent and nowise subject to its leverage.”). But we view general concerns about bargaining power as ancillary to *Brulotte*’s main policy focus—the unrestricted post-expiration use of patented inventions. A patent owner no doubt has the power to “exact [conditions] . . . with the leverage of [his] monopoly.” *Id.* at 33. But *Brulotte* deals with abuse of that power only through the extension of patent duration. Other forms of abuse, including tying, are separate issues. *See Kimble*, 576 U.S. at 458 n.4 (“[I]t is far from clear that the old rule of tying was among *Brulotte*’s legal underpinnings.”).

which did not practice the invention covered by Kimble’s patent. This implies, according to Ares, that *Brulotte* accomplished more than declaring unenforceable royalties that are calculated based on activity requiring post-expiration use of formerly patented inventions.

Ares’ interpretation of *Kimble* is wrong for two independent reasons. First, the Supreme Court granted certiorari in *Kimble* solely to determine whether *Brulotte* should be overruled. 576 U.S. at 449. It did not consider whether the Ninth Circuit correctly applied *Brulotte* below. *Id.* Accordingly, we are not bound by the Ninth Circuit’s interpretation of *Brulotte*. *Cf. Nkomo v. Att’y Gen.*, 930 F.3d 129, 134 (3d Cir. 2019) (presuming that “the Supreme Court [does not] ma[ke] . . . dramatic . . . change[s] *sub silentio*”).

Second, the Ninth Circuit’s decision in *Kimble* is consistent with our interpretation of *Brulotte*. *See generally Kimble v. Marvel Enters. Inc.*, 727 F.3d 856 (9th Cir. 2013), *aff’d sub nom. Kimble*, 576 U.S. 446. In that litigation, Kimble originally argued that the Web Blaster infringed his patent. *Id.* at 858. The District Court ruled in Marvel’s favor on infringement. *Id.* Then the parties settled after Kimble appealed the adverse infringement judgment, with Marvel purchasing Kimble’s patent in exchange for undertaking a royalty obligation. *Id.* Marvel’s obligation was calculated based on “product sales that would infringe the Patent but for the purchase and sale thereof . . . as well as sales of the Web Blaster product.” *Id.* at 859 (quoting the agreement). Thus, unlike this case, the royalty in *Kimble* was expressly calculated based on sales of infringing products. *Id.* Before the Ninth Circuit, Kimble argued “that both parties now agree that the Web Blaster did not infringe” his patent. *Id.* at 864. But because the royalty was expressly calculated based on sales of infringing products, the Ninth

Circuit “presume[d] that the post-expiration royalty payments [were] for the *then-current* patent use, which is an improper extension of the patent monopoly under *Brulotte*.” *Id.* at 863–64 (emphasis added). That is, it presumed that Marvel’s royalty obligation was calculated based on Marvel’s post-expiration use of Kimble’s invention. If the Ninth Circuit’s presumption is credited, then its conclusion is consistent with our interpretation of *Brulotte*.

3. Policy Considerations

Finally, Ares advances several policy disagreements with our understanding of *Brulotte*. But we are required to apply Supreme Court precedent faithfully. Even if Ares’ policy arguments have merit, they are better addressed to Congress or the Supreme Court. *Cf. Kimble*, 576 U.S. at 456 (“Congress can correct any mistake it sees.”).

Regardless, Ares’ policy arguments are unpersuasive. For example, it argues that our interpretation of *Brulotte* will be difficult to apply in practice. Courts will be required to determine whether a royalty is calculated based on activity requiring post-expiration use, which may necessitate a “trial-within-a-trial” on infringement. Opening Br. 28. Ares may be correct that *Brulotte* will be difficult to apply in some cases (although it remains simple in cases like this one). If so, that difficulty will be what *Brulotte* requires. The Supreme Court created a *per se* rule that must be rigidly applied even if its application is difficult. *See Kimble*, 576 U.S. at 468 (Alito, J., dissenting) (describing *Brulotte* as creating a “*per se* rule[] with . . . disruptive effects”).

Ares also complains that Dyax’s arguments regarding *Brulotte* in this case are inconsistent with its [REDACTED]

[REDACTED]

Even if that is true, it is irrelevant to our disposition of this appeal. We lack the authority to determine the enforceability of Dyax's royalty obligations to CAT under *Brulotte*. If Dyax returns to court in the future and seeks a declaratory judgment that its obligations to CAT are unenforceable, the issue may be litigated then.

C. Dyax Did Not Violate the Implied Covenant.

Separately, Ares challenges the District Court's judgment that Dyax did not violate the implied covenant of good faith and fair dealing. As Ares presents it on appeal, this claim does not depend on the alleged unenforceability of Ares' royalty obligation to Dyax under *Brulotte*. It depends on the alleged unenforceability of Dyax's royalty obligation to CAT under *Brulotte*.

Ares' argument proceeds as follows. Because Dyax's royalty obligation to CAT was invalid, Dyax's PD-L1 Product License terminated when the CAT Patents expired. When Dyax's PD-L1 Product License terminated, Ares' PD-L1 Product Sublicense also terminated. But under the CLA, Dyax was obligated to grant a PD-L1 Product Sublicense to Ares. So when the Sublicense terminated, Dyax breached its obligation under the CLA and had a duty under the implied covenant to relieve Ares of its royalty obligation.

Even accepting that Dyax's royalty obligation to CAT is unenforceable, Ares' argument fails for two independent reasons. First, Dyax did not breach its obligation to grant a Product Sublicense to Ares for PD-L1. It granted a PD-L1 Product Sublicense to Ares. This Sublicense may have terminated earlier than expected: when the CAT Patents expired, not

ten years after Bavencio was first sold. But the CLA does not impose an obligation on Dyax to obtain a Product Sublicense of the latter duration. Moreover, the duration of Ares' royalty obligation is not linked to the duration of the PD-L1 Product Sublicense. Because the CLA does not require a specific duration for the Product Sublicense, Dyax satisfied its obligations regardless of whether the Sublicense terminated early, and Ares cannot identify any other obligation that Dyax violated under the CLA.¹³ The implied covenant “may not . . . be invoked to create rights and duties not otherwise provided for in the existing contractual relationship.” *Uno Rests., Inc. v. Bos. Kenmore Realty Corp.*, 805 N.E.2d 957, 964 (Mass. 2004).

Second, even if Dyax violated a duty under the CLA, the implied covenant was triggered only if Dyax prevented Ares from “reap[ing] the benefits prescribed by the terms of the contract.” *Id.* That did not happen. Ares reaped every possible benefit from the CLA and the PD-L1 Product Sublicense, regardless of whether the Sublicense terminated early. Ares was able

¹³ *See Ares*, 2023 U.S. Dist. LEXIS 40484, at *80 (“Ares Trading has not pointed to any existing obligation in the CLA that Dyax has performed unfairly or without good faith by not (a) seeking a reduction from CAT of Dyax’s royalty on sales of Bavencio, (b) sharing such a reduction with Ares Trading, or (c) simply giving Ares Trading a reduction regardless of whether Dyax obtains a reduction from CAT.”). We agree with the District Court that Dyax “treated Ares Trading fairly and with good faith at every stage of their negotiations,” *id.* at *81 (capitalization altered), and to the extent Dyax negotiated royalties with CAT regarding differently-situated drugs, Dyax also offered that opportunity to Ares, and Ares refused.

to develop and commercialize Bavencio, a drug that is now worth hundreds of millions of dollars. And Ares was able to freely use the inventions covered by the CAT Patents before and after their expirations. Ares cannot point to any “benefit” that it lost due to the Product Sublicense’s alleged early termination. Instead, Ares’ real gripe is with the royalty that it agreed to pay in exchange for those benefits. Unfortunately for Ares, the implied covenant does not redress that grievance.

IV. CONCLUSION

Ares’ royalty obligation is not unenforceable under *Brulotte* because it is not calculated based on activity requiring post-expiration use of inventions covered by the CAT Patents. Ares’ arguments to the contrary fail because they do not cohere with *Brulotte*’s facts and the federal policy favoring limited durations for patent monopolies. Finally, Ares reaped every promised benefit under the CLA and the PD-L1 Product Sublicense, so Dyax did not violate the implied covenant of good faith and fair dealing. For these reasons, we will affirm the District Court’s judgment in full.