United States Court of Appeals for the Federal Circuit

UNIVERSITY OF MASSACHUSETTS, CARMEL LABORATORIES, LLC,
Plaintiffs-Appellants

v.

L'ORÉAL S.A., L'ORÉAL USA, INC.,
Defendants-Appellees

2021-1969

Appeal from the United States District Court for the District of Delaware in No. 1:17-cv-00868-CFC-SRF, Judge Colm F. Connolly.

Decided: June 13, 2022

JEFFREY A. LAMKEN, MoloLamken LLP, Washington, DC, argued for plaintiffs-appellants. Also represented by CALEB HAYES-DEATS; LAUREN F. DAYTON, New York, NY; BEATRICE FRANKLIN, TAMAR LUSZTIG, Susman Godfrey LLP, New York, NY; JUSTIN ADATTO NELSON, Houston, TX.

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MODI, Washington, DC; KATHERINE FRENCK MURRAY, Ellis George Cipollone O'Brien Annaguey LLP, Los Angeles, CA.

Before PROST, MAYER, and TARANTO, *Circuit Judges*.

TARANTO, *Circuit Judge*.

This appeal is from a judgment in a patent-infringement action involving U.S. Patent Nos. 6,423,327 and 6,645,513, which are related as parent and child and which are owned by University of Massachusetts and exclusively licensed to Carmel Laboratories, LLC (hereinafter referred to together as UMass). UMass filed the action in the District of Delaware against L'Oréal S.A. and its American subsidiary, L'Oréal USA, Inc. (hereinafter referred to together as L'Oréal unless otherwise noted), alleging that they were infringing the two patents. When L'Oréal S.A., which is based in France, moved to dismiss the action against it on the ground that the Delaware forum lacked personal jurisdiction over it, the district court granted the motion without permitting UMass to conduct jurisdictional discovery. *See* Memorandum Order, *University of Massachusetts v. L'Oréal S.A.*, No. 1:17-cv-00868 (D. Del. May 17, 2019), ECF No. 36 (*Personal Jurisdiction Order*); Report and Recommendation, *University of Massachusetts v. L'Oréal S.A.*, No. 1:17-cv-00868 (D. Del. Nov. 13, 2018), ECF No. 31 (*Personal Jurisdiction Report and Recommendation*). With the case then proceeding only against L'Oréal USA, the district court ruled on a dispute about the proper construction of one limitation of the claim that is representative for present purposes. *See* J.A. 3719–21 (Hearing Tr. at 56:22–58:16); *see also* Claim Construction Order, *University of Massachusetts v. L'Oréal USA, Inc.*, No. 1:17-cv-00868 (D. Del. Apr. 9, 2020), ECF No. 114 (*Claim Construction Order*). Relying on that construction, the district court subsequently held another limitation of the claim indefinite. *University of Massachusetts v. L'Oréal USA, Inc.*, 534 F. Supp. 3d 349 (D. Del. 2021) (*Summary*

Judgment Opinion). On that basis, the court entered a final judgment of invalidity against UMass.

UMass challenges both the indefiniteness and personal-jurisdiction rulings. On UMass's first challenge, we address the claim construction on which the indefiniteness ruling depends, and we reject the district court's construction as understood by both parties on appeal. This conclusion justifies our vacating the indefiniteness ruling and remanding for further proceedings. On UMass's second challenge, we conclude that UMass was entitled to jurisdictional discovery, and we therefore vacate the dismissal of L'Oréal S.A.

I

According to the specification of the '327 patent (and the materially identical specification of the '513 patent), human skin includes a surface layer called the epidermis and a deeper layer called the dermis. '327 patent, col. 1, lines 20–21. The dermis includes a variety of dermal cell types, as well as proteins such as collagen and elastin. *Id.*, col. 1, lines 24–34; J.A. 2871–72. The '327 patent and the related '513 patent, both titled "Treatment of Skin with Adenosine or Adenosine Analog," describe methods for enhancing the condition of non-diseased skin by topical application of compositions containing a naturally occurring nucleoside called adenosine. '327 patent, col. 1, lines 37–47; J.A. 2877. Independent claim 1 of the '327 patent is representative for our purposes and recites:

> 1. A method for enhancing the condition of unbroken skin of a mammal by reducing one or more of wrinkling, roughness, dryness, or laxity of the skin, without increasing dermal cell proliferation, the method comprising *topically applying to the skin a composition comprising a concentration of adenosine* in an amount effective to enhance the condition of the skin without increasing dermal cell

> proliferation, *wherein the adenosine concentration applied to the dermal cells is 10^{-4} M to 10^{-7} M.*

Id., col. 10, lines 18–26 (emphases added). "M" refers to the common measure of concentration, molar concentration, *i.e.*, moles per liter. L'Oréal Response Br. 22; *see also* J.A. 2882 n.2. Claim 1 of the '513 patent is identical except that its wherein clause recites a range of 10^{-3} M to 10^{-7} M—in other words, it allows a higher adenosine concentration. '513 patent, col. 10, lines 18–26.

On June 30, 2017, UMass filed a complaint in the United States District Court for the District of Delaware against L'Oréal S.A. and L'Oréal USA for infringement of the '327 and '513 patents. J.A. 49–62; *see also* J.A. 228–40 (First Amended Complaint). A few months later, L'Oréal S.A. filed a motion under Federal Rule of Civil Procedure 12(b)(2) asking that it be dismissed from the case on the ground that the forum lacked personal jurisdiction over it, attaching a declaration from an employee of L'Oréal USA. J.A. 521; J.A. 551–54. UMass opposed the motion, arguing, among other things, that it should be granted discovery related to personal jurisdiction. J.A. 557–78.

In March 2018, before the magistrate judge to whom the matter was assigned ruled on the Rule 12(b)(2) motion, L'Oréal USA filed petitions for inter partes reviews of the '327 and '513 patents under 35 U.S.C. §§ 311–19 with the Patent and Trademark Office's Patent Trial and Appeal Board. In September 2018, however, the Board denied institution. *See* J.A. 2798–817 ('327 patent); J.A. 2819–37 ('513 patent); *see also* J.A. 2839–46 (decision denying rehearing for '327 patent). In denying review, the Board construed the wherein clause of the above-quoted claim, which requires that "the adenosine concentration applied to the dermal cells" have a molar concentration within a specified range. Applying the district-court claim-construction standard, J.A. 2803; J.A. 2824, the Board rejected L'Oréal USA's argument that the recited concentration range is the

adenosine concentration in the composition that is topically applied to the skin surface (epidermis), and instead adopted UMass's construction that the recited concentration range is the adenosine concentration applied to the dermal cells in the dermis below the epidermis. *See* J.A. 2805–12; J.A. 2825–32. The Board did not further specify the meaning of the concentration "applied to the dermal cells"; in particular, the Board did not specify what is measured for the liter volume that defines the denominator of the moles/liter ratio, M. The Board did not require further definition for its non-institution ruling because it concluded that L'Oréal USA had not pointed to any measurement of concentrations beneath the skin surface in the prior art invoked against the patents. *See* J.A. 2812–16; J.A. 2833–36. Because the Board denied institution, those preliminary determinations were "final and nonappealable" under 35 U.S.C. § 314(d).

Back in the district court, on November 13, 2018, the magistrate judge recommended granting L'Oréal S.A.'s Rule 12(b)(2) motion without allowing discovery. *Personal Jurisdiction Report and Recommendation* at 17–26. Over UMass's objection, J.A. 1251–56, the district court adopted the magistrate judge's recommendations, dismissing L'Oréal S.A. from the suit, *Personal Jurisdiction Order* at 1–4. Thereafter, L'Oréal USA asked the district court to construe the wherein clause. The district court reached the same conclusion as the Board: The recited concentration range refers to "the concentration as it is applied to the dermal cells," not the concentration of adenosine in the composition that is applied to the epidermis. J.A. 3719–21 (Hearing Tr. at 56:1–58:16). Like the Board, the district court did not further specify the meaning of "the adenosine concentration applied to the dermal cells." Indeed, the district court entered an order stating that the wherein clause "has its plain and ordinary meaning without the need for further construction." *Claim Construction Order* at 1.

In September 2020, L'Oréal USA moved for summary judgment on multiple grounds. In one motion, L'Oréal USA focused on the claim language preceding the wherein clause (the so-called skin-enhancement clause)—requiring "topically applying to the skin a composition comprising a concentration of adenosine in an amount effective to enhance the condition of the skin, without increasing dermal cell proliferation." L'Oréal USA argued that the language would be indefinite if the court (1) maintained its earlier ruling on the wherein clause and (2) further concluded that the recited concentration range in the wherein clause does not establish the adenosine concentration in the composition topically applied to the skin in the skin-enhancement clause. *See* J.A. 11794–812; J.A. 18823–34.

In April 2021, the district court granted L'Oréal USA's summary-judgment motion on that ground, relying on the earlier claim-construction ruling that the concentration recited in the wherein clause concerns application to the subsurface dermal cells and emphasizing the distinctness of that concentration and the concentration recited in the skin-enhancement clause. *Summary Judgment Opinion*, 534 F. Supp. 3d at 353–57. The district court then entered its final judgment of invalidity of the asserted claims. UMass timely appealed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

II

On appeal, UMass first challenges the district court's indefiniteness determination. UMass's argument and the district court's ruling on indefiniteness rely on resolution of a dispute about claim construction, specifically, about the proper understanding of the wherein clause and how it relates to the skin-enhancement clause. Notably, UMass insists that the "concentration" in the wherein clause is the concentration of adenosine *in* the dermis after it has entered the dermis, *i.e.*, it measures the molar concentration M as the number of moles of adenosine divided by the

volume (liters) of the dermis itself. *See* Oral Arg. at 12:54–13:16; J.A. 12437. We turn initially to this dispute, and we reject UMass's view and conclude that the district court erred. Our conclusion eliminates an important premise of the indefiniteness determination, warranting vacatur of that determination and remand for further proceedings.

We decide claim construction here de novo, as the district court's claim-construction ruling rests only on intrinsic evidence, *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 801, 808 (Fed. Cir. 2021), and the intrinsic evidence likewise determines our construction. "We generally give words of a claim their ordinary meaning in the context of the claim and the whole patent document; the specification particularly, but also the prosecution history, informs the determination of claim meaning in context, including by resolving ambiguities; and even if the meaning is plain on the face of the claim language, the patentee can, by acting with sufficient clarity, disclaim such a plain meaning or prescribe a special definition." *World Class Technology Corp. v. Ormco Corp.*, 769 F.3d 1120, 1123 (Fed. Cir. 2014) (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–17 (Fed. Cir. 2005) (en banc); and then *Thorner v. Sony Computer Entertainment America LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)).

"The prosecution history, in particular, 'may be critical in interpreting disputed claim terms,'" and "even where 'prosecution history statements do not rise to the level of unmistakable disavowal, they do inform the claim construction.'" *Personalized Media Communications, LLC v. Apple Inc.*, 952 F.3d 1336, 1340 (Fed. Cir. 2020) (quoting *Sunovion Pharmaceuticals, Inc. v. Teva Pharmaceuticals USA, Inc.*, 731 F.3d 1271, 1276 (Fed. Cir. 2013); and then *Shire Development, LLC v. Watson Pharmaceuticals, Inc.*, 787 F.3d 1359, 1366 (Fed. Cir. 2015)). "'We cannot look at the ordinary meaning of the term . . . in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history.'" *Medrad,*

Inc. v. MRI Devices Corp., 401 F.3d 1313, 1319 (Fed. Cir. 2005) (quoting *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 1324 (Fed. Cir. 2001)). We conclude that the claim language is not plain in the respect at issue and that the proper interpretation is determined by the specification and, most pointedly, by the prosecution history.

A

We first conclude that the relevant claim language, especially when viewed in the context of the whole claim, is not plain on its face, much less plain in supporting UMass's interpretation of it. *See IGT v. Bally Gaming Int'l, Inc.*, 659 F.3d 1109, 1117 (Fed. Cir. 2011) ("Extracting a single word from a claim divorced from the surrounding limitations can lead construction astray."). The language contains evident uncertainties and indicators pointing against UMass's view.

A starting point is the fact relied on by the Board and district court: The wherein clause refers to "the adenosine concentration applied *to the dermal cells,*" whereas the preceding skin-enhancement clause refers to "topically applying *to the skin* a composition comprising a concentration of adenosine." The contrast in the object of the variants of the same verb is suggestive of a difference. *See* J.A. 2806–07 (Board resting primarily on this rationale); J.A. 3720 (Hearing Tr. at 57:1–24) (similar for district court); *see*, *e.g.*, *Hamilton Beach Brands, Inc. v. f'real Foods, LLC*, 908 F.3d 1328, 1340 (Fed. Cir. 2018). But this difference in one phrase is only a starting point. The specifics of the overall language immediately complicate the picture and push against UMass's argument.

One reason is the particular verb with the different objects. The word "applied" is capable of covering both direct application (to the skin surface) and indirect application (to the sub-surface layer). *See* J.A. 2845 (Board noting broad dictionary definition of "apply"). UMass itself, before the Board, confirmed the availability of the indirect meaning

when it asserted that the specification's phrase, "preferably applied by topical routes," '327 patent, col. 5, line 12, meant "'preferably *applied [to the dermal cells] by topical routes*,'" J.A. 2864 (emphasis and alteration added by UMass). As a result, the fact that one phrase using a form of "apply" refers to the "skin" and the other to the "dermal cells" does not mean that different things are being applied: The same thing can be applied directly to one object and indirectly to the other.

Language of the wherein clause affirmatively suggests such a connection between the two clauses at issue. The wherein clause refers to "*the* adenosine concentration applied to the dermal cells." That is the language for invoking an antecedent—for repeating, not departing from, the claim's prior reference to "a concentration of adenosine" included in the topically applied composition. J.A. 3720 (Hearing Tr. at 57:10–20); *see*, *e.g.*, *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1306 (Fed. Cir. 2005), *abrogated on other grounds by Zoltek Corp. v. United States*, 672 F.3d 1309, 1323 (Fed. Cir. 2012) (en banc); *Griffin v. Bertina*, 285 F.3d 1029, 1033–34 (Fed. Cir. 2002). So viewing claim 1 as involving one concentration, rather than two, also fits the dependent claims, some of which likewise refer to "*the* adenosine concentration," '327 patent, col. 10, lines 29–32 (emphasis added) (claims 3 and 4), suggesting a presupposition that there is only one such concentration called for by independent claim 1.

Finally, the use of the phrase "concentration applied to the dermal cells" in the wherein clause undermines UMass's suggestion of a plain meaning and, more particularly, its proposal of what that meaning is. As indicated by the undisputed definition of M (molar concentration), a concentration is a number of particles (in moles) per unit of volume (liter). The skin-enhancement clause speaks of applying a "composition" to the skin where the composition "compris[es] a concentration of adenosine." The claims refer to the composition being applied, not the

"concentration," and the reference is evidently to a number of particles per unit of volume of the composition that includes the adenosine *before putting it in contact with the skin*. *See* Oral Arg. at 12:54–13:27. The wherein clause then speaks of a "*concentration applied to* the dermal cells." This phrase naturally refers to a number of particles per unit of volume of the mixture of which the adenosine is a part *before putting the mixture in contact with the dermal cells*. But that apparent meaning, referring to a pre-application property, is contrary to UMass's view of the meaning.

UMass's view is that the wherein clause refers to something that has no existence before application—that it refers, instead, to a number of particles per unit of volume *of the dermal layer*, *after the adenosine particles have suffused into the dermis and thus already come into contact with the dermal cells*. Applying the district court's construction, UMass's infringement expert conducted cell-diffusion testing on L'Oréal's accused products to trace adenosine as it seeps through the epidermis and dermis after it is topically applied to a skin sample. To determine the adenosine concentration "applied to the dermal cells" (again, one part of the dermis), UMass's expert calculated the concentration as moles of applied adenosine in the dermis over liters of dermis. *See* J.A. 12437. This methodology reveals UMass's reliance on an interpretation that would call for a rewrite of the wherein clause (of claim 1 of the '327 patent) to say something like "wherein the adenosine permeating to the dermal layer results in a concentration of adenosine in the dermal layer of 10^{-4} M to 10^{-7} M." The need for a departure from the natural meaning confirms that UMass's asserted meaning is not plain.

For these reasons, we conclude that the claim language is not plain in the respect at issue.

B

We next conclude that the specification and the prosecution history show that the wherein clause should be read to refer to the concentration of adenosine in the composition applied to the skin's surface.

1

The patents describe multiple embodiments that are within the claim scope as the "invention." *See* '327 patent, col. 1, line 35, through col. 2, line 34. More specifically, the specification states that "[t]he therapeutically effective amount of adenosine used in the above-described methods is preferably 10^{-3} M to 10^{-7} M, more preferably 10^{-3} M to 10^{-6} M, and most preferably about 10^{-4} M," *id.*, col. 2, lines 14–17, where the "above-described methods" include, for example, "topically administering a therapeutically effective amount of adenosine . . . to a region of non-diseased skin of the mammal containing dermal cell," *id.*, col. 1, lines 56–59; *see also id.*, col. 1, lines 44–47; *id.*, col. 1, lines 64–66; *id.*, col. 2, lines 3–6. The patent further states that "[t]he invention also provides a composition including about 10^{-3} M to about 10^{-7} M adenosine and a therapeutically effective amount of an angiogenesis factor." *Id.*, col. 2, lines 30–34. None of these in-scope "invention" embodiments, or other references to specific numerical molar concentration figures of 10^{-3} M to 10^{-7} M or the like, specify a measurement of concentration after seepage through the skin into the dermis—much less a measurement of concentration as an amount of adenosine per unit of volume of dermal cells. This is significant evidence that the wherein clause is best read to refer to the concentration of adenosine in the composition applied to the surface of the skin. *See Phillips*, 415 F.3d at 1316; *VirnetX, Inc. v. Cisco Systems, Inc.*, 767 F.3d 1308, 1318 (Fed. Cir. 2014); *Netcraft Corp. v. eBay, Inc.*, 549 F.3d 1394, 1397–98 (Fed. Cir. 2008).

UMass points to other portions of the specification to support its contrary construction, but they do not show that the specification contemplates the concentration measurement UMass urges for the wherein clause. The specification does recognize that the epidermis is different from the dermis, which contains the dermal cells, *see* '327 patent, col. 1, lines 19–25, and that when an adenosine-containing composition is applied topically to the surface of the epidermis, not all the adenosine in the composition will penetrate to the dermis and dermal cells, *see id.*, col. 5, lines 10–24; *see also* J.A. 2877. But the passages so recognizing do not imply that the invention includes measuring concentrations beneath the skin surface after topical application. UMass also cites the specification's discussion of experiments in which particular dermal cells (fibroblasts) in laboratory dishes were directly exposed to solutions having a concentration of adenosine in the recited concentration range. '327 patent, col. 6, line 15, through col. 9, line 51. But UMass has not shown that, even in this context, the specification makes clear that the inventors contemplated measuring the adenosine concentration after exposure to the cells, rather than in a solution before application to the cells. *See* L'Oréal Response Br. 49–51 (characterizing the experiments as using pre-application measurements); UMass Reply Br. 25–27 (not contesting that characterization). And, in any event, the passages on the experiments certainly do not make clear any such contemplation in the context of a topical skin application covered by the claims at issue.

2

Even more strongly than the specification, the prosecution histories of the patents in question resolve the ambiguity surrounding the meaning of "the adenosine concentration applied to the dermal cells" in the wherein clause. The starting point is that the predecessor claim of independent claim 1 of the '327 patent was identical to current claim 1, except that it lacked the current wherein

clause. J.A. 2684. A separate dependent claim, however, claimed the method of the independent claim with the added requirement, "wherein the adenosine concentration is 10^{-4} M to 10^{-6} M." J.A. 2684. Those claims made no mention of application to "dermal cells" and thus seemingly referred only to adenosine concentrations applied to the skin.

Then, to overcome a prior-art rejection, applicants imported the dependent claim's wherein clause into the independent claim, but altered its wording so that it now read "wherein the adenosine concentration applied to the dermal cells is 10^{-4} M to 10^{-6} M." J.A. 2701. Importantly, in describing the amendment to the examiner in the office-action response, applicants implied that this new wording changed nothing about where the concentration was to be measured. Applicants remarked: "This amendment would add no new matter, as it *merely includes a range of concentrations of adenosine recited in dependent claims*." J.A. 2702 (emphasis added) (also stating "all [claims] are based on the application of certain concentrations of adenosine to the skin to achieve certain results"); *see also* J.A. 2762 (similar description in '513 prosecution history). In fact, in the same filing, applicants went on to distinguish two prior-art references in which concentrations are measured before application to the skin, and they did so at least in part by directly comparing the prior-art adenosine composition concentrations to the claims' adenosine concentration recited in the wherein clause, with no suggestion of a difference in location of concentration measurement. J.A. 2703–07; J.A. 2722–24. Based on those representations, the examiner eventually allowed the claims, commenting that the "[i]nstant claims are directed to a method of enhancing the condition of unbroken skin . . . where the method comprises administering adenosine at a concentration of 10^{-4} M to 10^{-7} M, *to the skin*." J.A. 2727 (emphasis added). And the next year, the examiner made the same statement in allowing the application that issued as the '513 patent. J.A. 2769.

We hold that this prosecution history requires that the wherein clause's reference to the recited concentrations being "applied to the dermal cells" be read as referring to concentrations of the composition applied to the skin's surface. The amendments and comments clearly convey that UMass was continuing the pre-amendment reliance on the concentration in the composition before application to the skin, rather than introducing a materially different, unexplained notion of concentration, no longer assessed before contact with the object of application. UMass's proposed construction now cannot fairly be squared with the understanding that both it and the examiner expressed during prosecution, and on which skilled artisans are entitled to rely.

UMass makes various counterarguments concerning the prosecution history, but all are unavailing. As an initial, legal matter, we reiterate that this is not a case where the prosecution history must meet the standard of clear and unmistakable disclaimer for overcoming an otherwise-plain meaning, contrary to UMass, the Board, and the district court's framings. *See* UMass Reply Br. 27; J.A. 2808–10; J.A. 3721 (Hearing Tr. at 58:4–7). We need not decide whether that standard is met here. Because the meaning of the relevant claim language is not plain, but rather ambiguous for the reasons described in Section II.A, we can look to the prosecution history to "inform[] the meaning of the disputed claim phrase and address[] an ambiguity otherwise left unresolved." *Personalized Media Communications*, 952 F.3d at 1345; *see also SoundView Innovations, LLC v. Hulu, LLC*, 33 F.4th 1326, 1332–35 (Fed. Cir. 2022).

Additionally, UMass's two factual arguments concerning the prosecution history are unpersuasive. First, UMass contends that applicants' distinguishing of the prior-art references should not be given weight because applicants did not do so "solely" on the basis of adenosine concentration. UMass Reply Br. 29. This is unsupported by the record. Concerning one cited reference, German patent

application DE 19545107, *see* J.A. 2709–20, applicants compared DE '107's adenosine composition concentration to the claims' recited concentration range and argued that, although DE '107 disclosed a concentration of adenosine within the recited range, it incorrectly taught that this level of adenosine would increase cell proliferation, J.A. 2704; J.A. 2722–24.[1] Similarly, concerning another cited reference, Hartzshtark, *see* J.A. 2917–18, applicants again compared Hartzshtark's adenosine composition concentration to the claims' recited concentration range, this time distinguishing Hartzshtark on the basis of this limitation, J.A. 2705–06; *see also* J.A. 2723. That applicants at least twice compared the claims' adenosine concentration in the wherein clause to prior-art adenosine *composition* concentrations—whether to distinguish the claims' concentration range for Hartzhtark or some other aspect of the claims for DE '107—strongly signals that the wherein clause requires that the recited concentrations are measured as amounts per volume of the composition applied to the skin's surface. *Cf. Amgen Inc. v. Coherus BioSciences, Inc.*, 931 F.3d 1154, 1159–60 (Fed. Cir. 2019); *Saffran v. Johnson & Johnson*, 712 F.3d 549, 559 (Fed. Cir. 2013).

Second, UMass seeks to dilute applicants' prior statements and arguments during prosecution by pointing to the voluntary comments applicants made in response to the examiner's reasons for allowance in the '327 prosecution history. *See Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1345 (Fed. Cir. 2005). Specifically, after noting that they were not conceding that the examiner's reason for allowance was the only reason the claims were allowable,

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[1] In arguing that the amount of adenosine recited in DE '107 does not increase dermal-cell proliferation, applicants submitted results from tests in which adenosine was applied directly to fibroblasts at concentrations of 10^{-4} M and 10^{-5} M. J.A. 2704; J.A. 2723.

applicants further "note[d] that the claimed concentration of adenosine is applied to the dermal cells." J.A. 2729. But that statement merely recited the ambiguous claim language; it did not communicate a disagreement with the examiner's clear statement of what that language meant. UMass did not clarify the sense in which it was using the term "apply" (which, again, can mean apply directly or apply indirectly), let alone explain the measurement methodology UMass now says is required (using the dermal layer as the volume). Tellingly, when the examiner made the same statement in allowing the application that issued as the '513 patent, UMass, while submitting a one-sentence comment on the statement of reasons for allowance, made no reference to the "applied to the dermal cells" language. J.A. 2771. For these reasons, UMass's bare statement made after allowance in the '327 prosecution history does not provide a sufficient reason to adopt a different construction from the one clearly indicated by the rest of the prosecution history (and specification). *See Biogen, Inc. v. Berlex Laboratories, Inc.*, 318 F.3d 1132, 1138–39 (Fed. Cir. 2003).

C

As a result of our new construction, the district court's subsequent indefiniteness ruling must be vacated, and we remand for the district court to conduct any further proceedings that are necessary. Although L'Oréal proposes that, if we reverse the claim construction of the wherein clause, we could directly enter a judgment of non-infringement, we leave it to the district court to determine how to proceed under the new construction. *See* L'Oréal Response Br. 45–46 & n.24 (contending that UMass conceded non-infringement); UMass Reply Br. 21 (disputing concession); Oral Arg. at 18:45–19:10, 48:13–49:16 (also discussing existence of invalidity counterclaims).

III

UMass also challenges the district court's personal-jurisdiction determinations. *See Personal Jurisdiction Report and Recommendation* at 17–26; *Personal Jurisdiction Order* at 1–4. Because we find that at the very least jurisdictional discovery was appropriate, we vacate and remand to the district court, without reaching the question of whether UMass made a sufficient prima facie showing that L'Oréal S.A. was subject to personal jurisdiction based on the complaint and evidence submitted at the time of the Rule 12(b)(2) motion. *See Autogenomics, Inc. v. Oxford Gene Technology Ltd.*, 566 F.3d 1012, 1016–17 (Fed. Cir. 2009).

Personal-jurisdiction analysis for patent-infringement claims is governed by Federal Circuit law. *See Synthes (U.S.A.) v. G.M. Do Reis Jr. Ind. Com. de Equip. Medico*, 563 F.3d 1285, 1293 (Fed. Cir. 2009); *Electronics for Imaging, Inc. v. Coyle*, 340 F.3d 1344, 1348 (Fed. Cir. 2003). A denial of jurisdictional discovery, however, is reviewed for abuse of discretion, applying the law of the regional circuit. *Autogenomics*, 566 F.3d at 1021–22. In the Third Circuit, "[i]f the plaintiff presents factual allegations that suggest with reasonable particularity the *possible* existence of the requisite contacts . . . , the plaintiff's right to conduct jurisdictional discovery should be sustained." *Eurofins Pharma US Holdings v. BioAlliance Pharma SA*, 623 F.3d 147, 157 (3d Cir. 2010) (cleaned up and emphasis added); *see also Compagnie Des Bauxites de Guinee v. L'Union Atlantique S.A. d'Assurances*, 723 F.2d 357, 362 (3d Cir. 1983) ("A plaintiff who is a total stranger to a corporation should not be required, unless he has been undiligent, to try such an issue on affidavits without the benefit of full discovery." (citation omitted)). In other words, jurisdictional discovery should be allowed unless plaintiff is attempting to "undertake a fishing expedition based only upon bare allegations" or a claim is "clearly frivolous." *Eurofins*, 623 F.3d at 157;

Toys "R" Us, Inc. v. Step Two, S.A., 318 F.3d 446, 456 (3d Cir. 2003) (citation omitted).

Here, the district court abused its discretion in not allowing jurisdictional discovery on the record before it. In front of the magistrate judge, UMass made more than clearly frivolous, bare allegations that L'Oréal S.A. was subject to personal jurisdiction, either because L'Oréal S.A. introduced the accused products into the stream of commerce or because L'Oréal USA operated as L'Oréal S.A.'s agent in certain potentially relevant respects. *See* Plaintiffs' Memorandum of Law in Opposition to Defendant L'Oréal S.A.'s Motion to Dismiss at 1–17, *University of Massachusetts v. L'Oreal S.A.*, No. 1:17-cv-00868 (D. Del. Dec. 8, 2017), ECF No. 27. For example, as potentially relevant to both theories, UMass put forward evidence buttressing the possibility that L'Oréal S.A. researched and developed the addition of adenosine to skin-care products, J.A. 263–69; J.A. 1070; J.A. 1073–77, and L'Oréal S.A.'s own submitted declaration indicated that L'Oréal S.A. may have licensed that technology to L'Oréal USA, J.A. 553–54 (Rabinowitz Decl. ¶ 6) ("From time to time, L'Oréal S.A. and L'Oréal USA engage in the sale of goods or services between the two companies."). For its part, L'Oréal S.A. did not specifically deny allegations that it developed and licensed the relevant technology to L'Oréal USA, stating only that "L'Oréal S.A. does not directly develop, sell, market, or advertise to consumers in Delaware any of the products at issue in this action," without making it clear what it meant by "directly develop." J.A. 553–54 (Rabinowitz Decl. ¶ 6).[2]

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[2] UMass may not have objected to the magistrate judge's finding that UMass did not, based on the evidence in front of the district court at the time of the Rule 12(b)(2) motion, sufficiently show personal jurisdiction based on a stream-of-commerce theory. *See* J.A. 1251–55. But, on the

Because this evidence raises the *possibility* that discovery might have uncovered the requisite contacts under our precedent, *see*, *e.g.*, *Nuance Communications, Inc. v. Abbyy Software House*, 626 F.3d 1222, 1233–34 (Fed. Cir. 2010); *Celgard, LLC v. SK Innovation Co.*, 792 F.3d 1373, 1379–82 (Fed. Cir. 2015), we vacate the jurisdictional determinations. UMass is entitled to jurisdictional discovery before any jurisdictional determination, if one remains necessary, is made.

IV

For the foregoing reasons, we reverse the district court's claim construction of the wherein clause and vacate the court's subsequent summary-judgment determination. We also vacate the district court's personal-jurisdiction determinations. And on both issues, we remand for further proceedings consistent with this opinion.

The parties shall bear their own costs.

REVERSED IN PART, VACATED IN PART, AND REMANDED

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issue of discovery, UMass did more generally object. J.A. 1255 ("At the very least, Plaintiff's' argument that L'Oréal S.A. designs and develops the Accused Adenosine Products is not 'clearly frivolous,' given the extensive supporting public evidence, and Plaintiffs should be permitted to take jurisdictional discovery." (quoting *Toys "R" Us*, 318 F.3d at 456)).