United States Court of Appeals for the Federal Circuit

BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM, TISSUEGEN, INC.,
Plaintiffs-Cross-Appellants

v.

BOSTON SCIENTIFIC CORP.,
Defendant-Appellant

2024-2062, 2024-2063

Appeals from the United States District Court for the District of Delaware in No. 1:18-cv-00392-GBW, Judge Gregory Brian Williams.

Decided: July 27, 2026

JOHN PIERRE LAHAD, Susman Godfrey LLP, Houston, TX, argued for plaintiffs-cross-appellants. Also represented by COREY MARTIN LIPSCHUTZ, BRIAN MELTON; MICHAEL W. SHORE, The Shore Firm LLP, Dallas, TX.

PRATIK A. SHAH, Akin Gump Strauss Hauer & Feld LLP, Washington, DC, argued for defendant-appellant. Also represented by Z.W. JULIUS CHEN, RACHEL J. ELSBY, KRISTEN LOVELAND; MICHAEL P. KAHN, New York, NY.

Before TARANTO, BRYSON, and CUNNINGHAM, *Circuit Judges*.

TARANTO, *Circuit Judge*.

The Board of Regents of the University of Texas (UT) owns United States Patent No. 6,596,296. The patent describes and claims a composition (for use, *e.g.*, in an implant) containing a drug-releasing biodegradable polymer fiber—a fiber in which a therapeutic agent is dispersed. In 2017, UT sued Boston Scientific Corporation (BSC), accusing BSC of infringing certain claims of the '296 patent by making, using, selling, offering to sell, and importing BSC's drug-eluting coronary stent systems.

The district court construed several terms within the asserted claims of UT's patent. *See Board of Regents v. Boston Scientific Corp.*, No. 18-392-GBW, 2022 WL 17039729, at *1 (D. Del. Nov. 17, 2022) (*Claim Construction*). A jury trial was then held on the asserted claims. The jury found that BSC infringed the asserted claims and did so willfully; rejected BSC's contention that the claims were invalid for anticipation by a prior-art reference; and awarded damages. The district court subsequently set aside the willfulness finding as legally unsupported but otherwise upheld the verdict and entered judgment accordingly. *See Board of Regents v. Boston Scientific Corp.*, No. 18-392-GBW, 2024 WL 2848471 (D. Del. June 5, 2024) (*Decision*).

BSC appeals from the liability verdict and UT cross-appeals from the district court's rejection of the jury's willfulness verdict. We conclude that BSC was entitled to judgment as a matter of law of invalidity for anticipation. We also conclude that BSC was entitled to judgment as a matter of law of non-infringement. We therefore reverse the judgment for UT and do not reach UT's cross-appeal.

I

A

UT's '296 patent, whose title is "Drug Releasing Biodegradable Fiber Implant," describes and claims compositions containing at least one biodegradable polymer fiber that itself contains one or more therapeutic agents. '296 patent, title (capitalization removed); col. 27, lines 54–58 (claim 1). The polymer fibers are "capable of the controlled delivery of therapeutic agents." *Id.*, col. 2, lines 44–45. The patent contemplates various types of "therapeutic agents," including drugs promoting or inhibiting angiogenesis, anti-inflammatory compounds, and long-term cardiovascular drugs. *Id.*, col. 4, lines 1–27.

Delivery of a therapeutic agent from the implant to the patient depends on the internal makeup of the fibers. *See id.*, col. 2, lines 45–65. The patent describes the spatial orientation of agent-concentration gradients within a fiber and the use of "coaxial layers" as ways to control the therapeutic delivery of agent. *Id.* The patent further describes making a matrix (or scaffold), which "may be woven, non-woven, braided, knitted, or a combination of two or more such preparations," using the fibers. *Id.*, col. 3, lines 34–36; *see id.*, col. 2, lines 41–65.

To prepare certain embodiments of the patented invention, a biodegradable polymer is dissolved in a solvent and combined with an aqueous solution containing the drug of interest (the therapeutic agent). *See id.*, col. 17, lines 36–54. The resulting "emulsion" is then extruded into a coagulation bath containing a solvent that causes the polymer to "precipitate upon itself, forming the outer sheath of a fiber and trapping virtually all of the dispersed aqueous phase of the emulsion within the forming fiber." *Id.*, col. 18, lines 12–28. The drug of interest is thereby trapped in the forming fiber. *See id.*, col. 18, lines 26–30. In other embodiments, the drug of interest can coat the outside of an already-created polymer fiber. *See id.*, col. 9, lines 10–

14. The patented invention can be used "in conjunction with commercially available stents to deliver drugs at the placement site." *Id.*, col. 22, lines 48–49.

Claims 1, 11, 17, and 26 were the claims asserted at trial and are at issue here. Claim 1, on which the others directly or indirectly depend, reads as follows:

> A composition comprising at least one biodegradable **polymer fiber** wherein said fiber is composed of **a first phase and a second phase**, the first and second phases being **immiscible**, and wherein the second phase comprises one or more therapeutic agents.

Id., col. 27, lines 54–58 (emphases added to highlight disputed limitations).

B

In 2017, UT sued BSC in the Western District of Texas, but the case was transferred to the District of Delaware. *See Board of Regents of the University of Texas System v. Boston Scientific Corp.*, 936 F.3d 1365, 1369, 1374 (Fed. Cir. 2019). UT accused BSC of infringing its patent through BSC's making, using, selling, offering to sell, and importing of a drug-eluting stent. BSC's stent consists of a metal frame containing linked, serpentine (zigzag-shaped) rings. *See* J.A. 352; J.A. 2693; J.A. 17945–46. The frame is dipped and rolled in a liquid drug-containing biodegradable coating, which "dries like paint," J.A. 17687, and adheres to the outer surface of the frame, *i.e.*, on the "abluminal surface of the metal stent," J.A. 2693. *See* J.A. 2694; J.A. 2754–55; J.A. 3147; J.A. 3231; J.A. 9882; J.A. 17672–74; J.A. 17946; J.A. 18117; J.A. 18786; J.A. 18852; J.A. 18863; *see also* J.A. 18030 (UT's expert agreeing that the accused polymer is a liquid in which the metal frame is rolled). In the accused stent, the drug of interest is released over time as the stent's coating biodegrades. *See* J.A. 3231.

After preliminary claim constructions by one judge, *see* J.A. 1928–33, the case was reassigned to a different judge, who adopted the initial constructions with some modifications, *see Claim Construction*, at *1, *4. Relevantly, the court construed (1) "first phase" to mean "the polymer portion of the fiber"; (2) "second phase" to mean "the discrete drug-containing regions dispersed throughout the fiber"; (3) "immiscible" to mean "incapable of dissolving into one another"; and (4) "fiber" to have its "plain and ordinary meaning," which the court understood to mean "a thread-like structure of any length or shape." *Claim Construction*, at *1, *4. The court later denied BSC's motion for summary judgment of noninfringement, and the case proceeded to a two-phase trial, in which the jury first received evidence on and decided validity and infringement and immediately thereafter received evidence on and decided damages issues, J.A. 11323.

As now relevant, BSC presented evidence (including testimony of its expert, Dr. Mooney) that prior-art U.S. Patent No. 5,364,627 (Song) anticipated the asserted claims of the '296 patent. Song discloses a delivery system and process for enabling the gradual release of an active agent (*e.g.*, a drug or a chewing-gum flavorant) from a fiber. *See* J.A. 25635; J.A. 25644, col. 4, lines 32–36. Song discloses that the agent is dispersed throughout the fiber. *See* J.A. 25643, col. 1, lines 52–65. The agent is exposed to a solvent and released from the fiber. *See id.*

UT put on a case of infringement, which included testimony of its expert, Dr. Pitt, who created and used a demonstrative model of the accused BSC stents. *See* J.A. 17991. BSC challenged UT's infringement case on several grounds. One was that the coating of BSC's accused stent is not "thread-like," so is not a fiber under the district court's claim construction (which UT embraces). *See* J.A. 18104.

The jury found that BSC infringed asserted claims 1, 11, 17, and 26 of the '296 patent and that BSC had not proven invalidity of any of those claims. *See* J.A. 13888–90. After the second phase of the trial, the jury found that BSC's infringement was willful and awarded reasonable-royalty damages to UT. *See* J.A. 13895–97.

Both parties filed post-trial motions. BSC sought judgment as a matter of law (JMOL) of invalidity for anticipation, of noninfringement, and of no willfulness, and it also sought a new trial on the ground that UT engaged in prejudicial conduct during trial. *See* J.A. 14047; J.A. 14051. UT moved to enhance the damages award. *See* J.A. 13941. In a June 2024 memorandum opinion on the post-trial motions, the district court (1) denied BSC's motion for JMOL on invalidity and noninfringement; (2) granted BSC's motion for JMOL of no willfulness; and (3) denied UT's motion for enhanced damages. *See Decision*, at *1.

The district court entered an amended final judgment on June 28, 2024. J.A. 3–4. The parties timely appealed. *See* J.A. 17313–16. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

II

Following Third Circuit law, we review the district court's denial of JMOL on an issue de novo, asking whether "a reasonable jury would not have had a legally sufficient evidentiary basis to find for [the verdict winner] on that issue." *Bayer Healthcare LLC v. Baxalta Inc.*, 989 F.3d 964, 979 (Fed. Cir. 2021) (internal quotation marks and citation omitted). BSC argues that it was entitled to JMOL of anticipation and of noninfringement.

A

BSC contends that there was an insufficient evidentiary basis for a reasonable jury to find that Song does not anticipate asserted claims 1, 11, 17, and 26 of the '296 patent. Whether a prior-art reference anticipates a patent

claim is a question of fact. *See TVIIM, LLC v. McAfee, Inc.*, 851 F.3d 1356, 1362 (Fed. Cir. 2017). "A patent claim is anticipated if a single prior art reference expressly or inherently discloses every limitation of the claim." *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1252 (Fed. Cir. 2014). Anticipation turns on what the prior-art reference substantively discloses to a relevant artisan. *See Sage Products, LLC v. Stewart*, 133 F.4th 1376, 1384 n.5, 1385 (Fed. Cir. 2025); *Acoustic Technology, Inc. v. Itron Networked Solutions, Inc.*, 949 F.3d 1366, 1373 (Fed. Cir. 2020). BSC had to prove anticipation by clear and convincing evidence. *See ATEN International Co. v. Uniclass Technology Co.*, 932 F.3d 1364, 1368 (Fed. Cir. 2015).

We address independent claim 1 first. Then we address dependent claims 11 and 17 together. Finally, we address dependent claim 26. We conclude that a reasonable jury, on the evidence, had to find that Song anticipated the claims at issue.

1

Three limitations of claim 1 are key to the anticipation analysis: (a) a "biodegradable polymer fiber"; (b) composed of two "phases," of which (under constructions UT accepts) one is "the polymer portion of the fiber" and the other is "the discrete drug-containing regions dispersed throughout the fiber"; with (c) those phases "being immiscible." *See Claim Construction*, at *1.

a

Multiple disclosures in Song compel a finding that the reference teaches a "biodegradable polymer fiber." Song teaches a "fiber having a support matrix." *See* J.A. 25643, col. 2, lines 36–37. That "support matrix" includes a "wall material," J.A. 25643, col. 2, lines 37–38, and "the wall material can be [made of] any . . . natural polymer," J.A. 25645, col. 5, lines 1–3. Song then lists several examples of "biodegradable polymers useful" as the foundation for

the wall material in the invention. J.A. 25645, col. 5, lines 10–18. Those disclosures clearly teach a "biodegradable polymer fiber."

In reaching the conclusion that a reasonable jury was not required to find that Song anticipates claim 1, the district court credited testimony by UT's expert, Dr. Pitt, that the manner of biodegradation in Song is relevantly different from the manner of biodegradation in the '296 patent. *See Decision*, at *5–6 (citing J.A. 18292). Dr. Pitt, referring to Song as the "chewing gum" patent (though its teachings are plainly broader), testified that the polymer fibers in Song release the agent upon being deformed by a user chewing on them, whereas the '296 patent addresses usefulness in applications involving tissue engineering or stents. *See* J.A. 18289–94. For multiple reasons, this testimony cannot reasonably support a finding that Song does not teach the biodegradable polymer fiber element of the claims at issue here.

Song expressly discloses a biodegradable polymer fiber, as set forth above. Moreover, Song itself is undisputedly not limited to chewing gum (which it mentions in one sentence and several embodiments), J.A. 25644, col. 3, lines 26–30; J.A. 25646–47, col. 8, line 56, through col. 9, line 68 (embodiments describing "a gradual release of the active agent when chewed"), or to saliva (a word not used in Song) as a solvent. Its teachings broadly cover fibers and drugs (not just flavorants). *See* J.A. 25644, col. 4, lines 32–34 ("The active agent can be any material such as artificial sweeteners, powdered flavor oil, or drugs, which the gradual release of may be desired."). And Song clearly teaches degradation from exposure to a solvent, such as at the open ends or sides of a fiber, even apart from fiber deformation (which can help expose more agent to the solvent). J.A. 25643–44, col. 1, lines 61–65; col. 2, lines 42–45, 62–64; col. 3, line 1, through col. 4, line 19. The "biodegradable polymer fiber" requirement of claim 1 of the '296 patent contains no restriction not clearly met by Song. Reading both

the '296 patent and Song for what they actually say, "no reasonable fact-finder could reach a conclusion other than" that Song teaches the biodegradable polymer fiber required by claim 1 of the '296 patent. *See Orion IP, LLC v. Hyundai Motor America*, 605 F.3d 967, 977–78 (Fed. Cir. 2010) (concluding that a claim for selling equipment that did not specify the *type* of price information conveyed to a customer was not limited to teaching one type of price information and accordingly determining that the claim was anticipated). On the record of this case, there was no legally sufficient evidentiary basis to find that Song does not teach the claimed biodegradable polymer fiber.

b

We turn to the other disputed limitations of claim 1 and ask if a reasonable jury was required to find that they, too, were disclosed in Song. As to the two "phases" limitations of claim 1, the parties agreed on constructions of the "phases," one being the polymer portion of the fiber and the other being the active-agent (drug) regions dispersed throughout the fiber. *See Claim Construction*, at *1. On the record here, we conclude that no reasonable jury could have found that Song does not disclose both "phases."

Song teaches a "polymer portion of the fiber" (the "first phase"). *See*, *e.g.*, J.A. 25643, col. 2, lines 37–38; J.A. 25645, col. 5, lines 1–3, 10–18 (Song disclosing fibrous wall material made of polymers). Song describes the polymer wall material and therapeutic agent as two separate, "immiscible" components of the invention. *See* J.A. 25645, col. 5, lines 5–7. Song also teaches various "active agents," including "drugs," that can be released from the fiber. *See* J.A. 25644, col. 4, lines 32–66. The agent can be "in contact with itself forming a contiguous phase"—*i.e.*, the active-agent regions can touch each other—but Song also expressly states that "the active agent . . . does not necessarily have to be in a contiguous phase." J.A. 25643, col. 2, lines 38–42.

On appeal, the parties do not appear to dispute that Song teaches the "first phase" limitation of claim 1 ("the polymer portion of the fiber"). But the parties dispute whether Song teaches the "second phase" limitation. The district court's construction of the "second phase" limitation requires "*discrete* drug-containing regions dispersed throughout the fiber." *See Claim Construction*, at *1 (emphasis added). Citing that construction, UT has argued that the jury could properly find that Song does not teach the "second phase" limitation, based on certain testimony by its expert that the '296 patent's "discrete" drug-containing regions are relevantly different from what Song discloses, which the expert indicated was limited to "contiguous" phases of the active agent. *See* J.A. 18293–94. We conclude that this argument and evidence are insufficient to sustain a finding of no anticipation.

First, Song's express disclosure of an active agent in a noncontiguous phase clearly teaches the claimed "discrete drug-containing regions." Song states: "The active agent, however, does not necessarily have to be in a contiguous phase." J.A. 25643, col. 2, lines 38–42; *see* J.A. 18299 (UT's expert acknowledging that the active agent in Song does not necessarily have to be in a contiguous phase). A "noncontiguous" region *is* "discrete" from other such regions under plain English—"discrete" as ordinarily used means "individually distinct," and "[non]contiguous" means not "touching along a boundary or at a point." *See* BSC Reply Br. at 12 (citing Merriam-Webster's Collegiate Dictionary 270, 357 (11th ed. 2020)). We see no basis on which it could reasonably be found that Song's teaching of non-touching regions is not a teaching of discrete regions. BSC's expert testified to this plain-language point, *see* J.A. 18171 (BSC's expert testifying "if [the phases] are noncontiguous, then they are separated or can be discrete"), and UT has offered nothing of substance to the contrary. To the extent that UT has suggested that "discrete" may cover *more* than "noncontiguous," we need not disagree, because the point

is immaterial. As long as "discrete" *includes* "noncontiguous," as it plainly does, that is enough for anticipation of the '296 patent's "discrete" requirement by Song's "[non]contiguous" teaching, because Song thereby teaches something covered by the "discrete" claim requirement. *See*, *e.g.*, *Bristol-Myers Squibb Co. v. Ben Venue Laboratories, Inc.*, 246 F.3d 1368, 1374–77 (Fed. Cir. 2001). No reasonable jury could find that the noncontiguous phases of the drug disclosed in Song do not disclose the claimed "discrete drug-containing" regions.

Second, UT's expert testimony regarding the "second phase," rather than addressing the claimed location of the drug within the fiber, addresses a particular aspect of how the drug is released from the fiber—an aspect *not* claimed. UT's expert testified that in Song, upon a user's chewing of the fiber, the fiber is "chopped," exposing "channels" from which the drug dissolves. *See* J.A. 18293–94. The expert distinguished Song's manner of release of the drug from the manner of release in the '296 patent, testifying that, for the '296 patent, the drug elutes "out [of] the radial direction instead of going out [of] the ends" of channels. J.A. 18294. But, as indicated above, Song is not limited to chewing-produced release or release from the sides of fibers; and in any event, and decisively, the district court's construction of "second phase" does not require radial elution. Instead, what is required for Song to teach the claimed second phase is that the drug-containing regions of Song are "discrete." Because UT's expert testimony about the mechanism of release of the drug does not address a claim requirement, it does not provide sufficient evidence for a reasonable jury to find that Song's noncontiguous phases of active agent do not anticipate the '296 patent's "discrete drug-containing regions."

c

The foregoing discussion rejects all of the arguments UT makes on appeal to support the verdict of no anticipation. UT does not separately argue that the jury could reasonably find that Song fails to disclose claim 1's limitation requiring "immiscible" phases. That is not surprising. No reasonable jury could find that Song does not teach that limitation. Song expressly discloses that the "active agent" and fibrous "wall material . . . *must be immiscible with each other*." J.A. 25645, col. 5, lines 5–7 (emphasis added).

We therefore conclude that BSC was entitled to judgment as a matter of law that claim 1 is invalid for anticipation by Song.

2

Claims 11 and 17 of the '296 patent depend on claim 1. Each claim differs from claim 1 only in the addition of an element written in Markush form—stating that a claim 1 element is one or more of the items on a written-out list. Such an element "is disclosed by the prior art if one alternative in the Markush group is in the prior art." *Fresenius USA, Inc. v. Baxter International, Inc.*, 582 F.3d 1288, 1298 (Fed. Cir. 2009). We conclude that the evidence of record required a finding that Song discloses at least one element of the Markush group in each claim and, therefore, that claims 11 and 17 are also anticipated by Song.

Claim 11 requires that the composition of claim 1 include "one or more therapeutic agents" from a list set forth in claim 11. '296 patent, col. 28, lines 21–29. One of claim 11's listed "therapeutic agents" is "drugs." *Id.*, col. 28, line 23. Song expressly discloses "drugs" as one type of "agent" that can be used in an embodiment of the invention. J.A. 25644, col. 4, line 33.

Claim 17, which depends on claim 16, is similar. Claim 16 requires that the biodegradable polymer of claim 1 be a polymer, co-polymer, or a mixture of polymers selected

from a group defined in claim 16, which includes "aliphatic polyesters." '296 patent, col. 28, lines 49–54. Claim 17 further enumerates examples of aliphatic polyesters, including "poly(glycolic acid)." *Id.*, col. 28, lines 50–51. Song expressly discloses "polyglycolic acid" as an "example of [a] biodegradable polymer[ ]." J.A. 25645, col. 5, lines 12–18.

Given Song's express disclosures, we conclude that a reasonable jury, on the record here, must find that claims 11 and 17 are anticipated by Song.

3

The final asserted claim is claim 26, which recites:

> 26. The composition of claim 1, wherein said one or more therapeutic agents are **released at varying rates** over time from said fiber.

'296 patent, col. 29, lines 12–14 (emphasis added). The parties dispute whether Song would be understood by a relevant artisan to disclose release of the Song-taught agent (which includes a therapeutic agent) from the fiber at "varying rates." *See* BSC Opening Br. at 23; UT Principal Br. and Br. in Response at 42. There was no claim construction of the phrase "varying rates," which has a plain meaning of rates that change, with no minimum degree of change implicit in the broad term.

Taking full account of BSC's burden of persuasion on this issue, we conclude that a reasonable jury had to find that Song taught this "varying rates" release requirement. BSC's uncontradicted expert testimony was that a relevant artisan would understand Song to disclose a composition that has varying rates of drug release. UT undisputedly offered no evidence to the contrary and has, even by lawyer's argument, provided no reason to doubt the testimony of BSC's expert. And Song itself, far from undermining that testimony, depicts openings of various sizes for release

of the drug from the fiber in Song Figures 1 and 1A, affirmatively bolstering the testimony. On this record, no reasonable jury could find that Song does not anticipate claim 26.

a

We begin with the expert testimony presented to the jury about what Song discloses regarding claim 26. *See Sage Products*, 133 F.4th at 1385 (affirming relevance of such testimony for deciding anticipation); *Acoustic Technology*, 949 F.3d at 1373 (same). This testimony was entirely one-sided (UT presented none), and it was very brief (unlike with the elements of claim 1), indicating the simplicity of the sole remaining point for claim 26. BSC's expert testified that "all drug delivery systems will have a varying release rate with time," J.A. 18176, explaining that it would be "very, very difficult" to manufacture a drug delivery system "where the release rate doesn't change with time," J.A. 18177. On that basis, he concluded that a relevant artisan "would just know," reading Song's disclosure of release of an agent, that the agent is released "at varying rates over time." *Id.* And given the reason for that relevant-artisan understanding, it was irrelevant that Song does not use the word "variable." J.A. 18246–47.

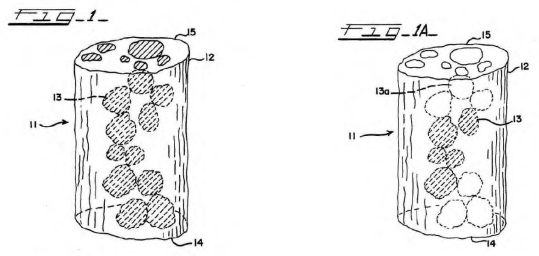
UT presented no expert testimony to the contrary. On appeal, UT's counsel agreed that it presented no affirmative evidence to support a contrary determination. *See* Oral Arg. at 41:12–51, cafc.uscourts.gov/oral-arguments/24-2062_06092026.mp3. Nor has UT proffered, even through argument by counsel, a persuasive reason to doubt the testimony of BSC's expert that changing rates of release are so unavoidable that a relevant artisan would understand Song's release rate to change over time (given the absence of something in Song indicating otherwise).

Moreover, UT's own submission at trial itself indicates that Song discloses varying release rates. To distinguish Song from the '296 patent generally, UT's expert testified that the patents are not useful in the same field of art. *See*

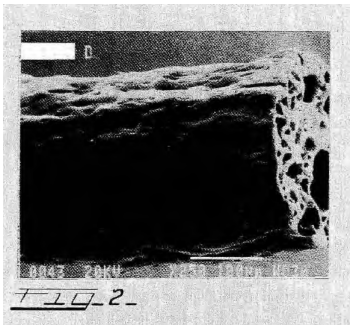
J.A. 18289–90. He focused on one aspect of Song's teaching, namely, "polymer fibers that release agents in . . . chewing gum" through the user's "chewing and deforming [of] the fiber." J.A. 18289. UT's counsel, during closing argument, expressly drew out the natural import of that testimony—the varying nature of chewing that causes varying deformations of the fiber to create varying openings where solvent touches the active agent for release: "You chew it . . . you can chew slow; you can chew fast . . . it's open here . . . [and] here . . . [but] [t]hese are not open." J.A. 18346. That submission supported BSC's evidence that the therapeutic agent would be released through Song's channels at different rates, a function of differing sizes and locations of the pores. *See* J.A. 18291; J.A. 25644, col. 3, lines 1–12, 35–39.

b

That Song anticipates claim 26's "varying rates" of drug release is further shown by Song's Figures 1 and 1A, offered as evidence by BSC's expert to demonstrate release of a drug even from a contiguous-phase active agent. *See* J.A. 15806–07; J.A. 18171–77; J.A. 25637.



Figures 1 and 1A illustrate an embodiment of Song's "gradual release structure," with labeled "ends 14 and 15" having "openings, exposing the active agent." J.A. 25644, col. 3, lines 44–53. The active agent may also be exposed to the dissolving solvent through openings along the side of the fiber as depicted in Figure 2.



J.A. 25638; *see* J.A. 25644, col. 3, lines 53–55; J.A. 18298. Although those figures describe a "gradual" release embodiment, Song's disclosure provides little guidance as to what "gradual" means, merely describing "gradual release" as the result of "the fiber [being] brought in contact with a solvent, or dispersing media, for the active agent." J.A. 25644, col. 3, lines 57–59. But the figures clearly depict openings and pockets of drugs with varying shapes and sizes. We have been offered no basis on which a reasonable jury interpreting Figures 1, 1A, and 2 could find that differently-sized pockets of drug would degrade from differently-sized openings in the fiber at a uniform rate.

At oral argument, UT directed the court to two portions of Song's disclosure and argued that the disclosures teach a mechanism of biodegradability in which the release of the agent is controlled and "limited" by the fiber. *See* Oral Arg. at 37:17–40:45 (citing J.A. 25644, col. 3, lines 15–20; *id.*, col. 4, lines 6–14); *see also* J.A. 15806 n.5 (UT preserving this argument in post-trial briefing). In those disclosures, Song describes how "the support matrix serves to limit the rate of dissolution [of the agent] by restricting the area of active agent in direct contact with the solvent." J.A. 25644, col. 3, lines 15–20. At argument, UT urged the court to interpret Song's disclosure of "limit[ing]" the dissolution of the agent as synonymous with "fixing" the rate of dissolution. *See* Oral Arg. at 38:25–40:45.

That contention is simply incorrect. Even if Song's statement that the matrix "limits" the rate of dissolution meant that it sets a cap on the rate—itself not really what Song says—a cap sets a maximum but in no way implies or suggests uniformity under the maximum. The fiber may limit the *amount* of agent to be released but still release that limited amount of agent at varying rates. Or it may place an upper (or lower) bound on the rate (or both), but still release the agent at varying rates within the set limit(s). In pointing to Song's "limit" language, UT thus has not offered any basis for a finding that Song discloses only uniform (non-variable) rates of release. For this reason, and the others given, we therefore conclude that, on the wholly one-sided record on the issue in this case, a reasonable jury had to find that Song teaches varying rates of release of the agent.

In light of our conclusions as to all four asserted claims of the '296 patent, we reverse the district court's denial of JMOL of no anticipation.

B

While our conclusion as to invalidity for anticipation suffices to resolve this appeal and the case in BSC's favor, we think it worthwhile to address another contention made by BSC on appeal—namely, that BSC is also entitled to JMOL of non-infringement. In particular, the district court construed "fiber" to mean "a thread-like structure of any length or shape," and, on that construction, the jury found that BSC's accused stent infringed the patent. *Claim Construction*, at *4; J.A. 13888. BSC later unsuccessfully moved for JMOL of no infringement, arguing that the accused stent does not contain a fiber. *See Decision*, at *9. We conclude that no reasonable jury could find that the portion of BSC's stent accused of being the claimed "fiber" meets the district court's construction.

UT's theory of infringement is that a part of the stent's coating, and not the stent itself, meets the "fiber" limitation. *See* J.A. 17944; *Decision*, at *9. The district court concluded that "nothing in the Court's claim construction prevented the jury from finding that the coating—'the polymer around the outside surface of [BSC's accused stent]'—was a fiber." *Decision*, at *9. UT's evidence thus limited its "fiber" assertion to what the accused stent's coating might look like if it were removed from the metal frame of the stent. *See id.*; Oral Arg. at 58:13–58:43 (UT stating that the court should "look at the overall . . . structure" of the coating to determine if it is a fiber).

UT's evidence was narrowed, in fact, to a mere part of the stent's coating removed from the metal frame. UT's expert, Dr. Pitt, after his full direct testimony, testified that he had not "at any point in this case . . . opined that the polymer coating on Boston Scientific's accused . . . stents is thread-like." J.A. 18008. That statement appears to refer to the coating as a whole. In his direct testimony, Dr. Pitt, including by using a demonstrative to help the jury visualize the "dimensions and aspect ratios" of the coating portion he was relying on, identified as the claim-covered "'thread-like' fiber" the portion of the coating one would get by "cut[ting] across a connector to access the fiber covering one serpentine [zigzag] loop around the stent." *Decision*, at *9; *see* J.A. 17944–50; J.A. 17990–91.

We conclude, on the record before us, that no reasonable jury could find that cut-out section of coating removed from the frame to be "thread-like." Notably, UT has positively insisted, as it emphasized at argument, that it is the (or a) macroscopic structure of the accused stent's coating that constitutes the claimed "fiber." *See* Oral Arg. at 58:14–49. UT had successfully opposed a construction of "fiber" that is tied to the molecular orientation of the polymer at a microscopic level. *See id.* at 58:46–59:09; *Claim Construction*, at *6–9. Identifying what macroscopic structures constituted a "thread-like" fiber in the accused stent,

UT relied entirely on the portions of coating on the outside of zigzag struts making up a single ring around the stent—a zigzag-shaped section of coating stripped from the frame. *See Decision*, at *9; UT Principal Br. and Br. in Response at 54; J.A. 17944–50; J.A. 17990–91; Oral Arg. at 1:01:24–46.

It is not reasonable to characterize that artificially separated section of the stent coating as a "thread-like" structure. It is not a structure that ever had or would have independent existence. It is just the result of adhering a liquid (which UT does not assert to be a fiber in that form) to the frame, and then letting it dry. The resulting coating "needs a substrate," J.A. 18261; it is not meant to be stripped from its frame or to retain its form on its own. The portion relied on by UT is tubular in overall shape—the outer coating of a ring—and has walls consisting of a zigzagging shape to match its metal frame. And UT has not shown that the detached coating would be essentially one-dimensional, like a thread, rather than visibly two-dimensional like a ribbon. In at least these respects, UT's accused "fiber" is not reasonably characterized as like a thread, at least not in a way that would fit its role as a construction of the term "fiber" in the '296 patent, which contemplates a fiber having a "diameter." '296 patent, col. 3, lines 12–21. And those problems would not be solved even if UT had sought to go beyond its expert's testimony and proposed a further cutting out of the theoretically detached coating section a truly thread-like shape: One cannot reasonably say that a uniform sheet of paper contains a narrow strip simply because one can cut such a strip from it.

We conclude that no reasonable jury on this record could find that UT's proof established the presence in the accused stents of the "thread-like" structure required by the claim construction not challenged by UT on appeal. For this reason, BSC is entitled to JMOL of no infringement as well as of invalidity.

III

We reverse the district court's denial of JMOL to BSC on both anticipation and noninfringement. Having so held, we need not address BSC's other challenges, which include serious challenges to the way UT was permitted to try its case, and we need not address UT's cross-appeal on willful infringement.

Costs awarded to appellant.

REVERSED