United States Court of Appeals for the Federal Circuit

BAYER CROPSCIENCE AG,
Plaintiff-Appellant,

v.

DOW AGROSCIENCES LLC,
Defendant-Appellee.

2013-1002

Appeal from the United States District Court for the District of Delaware in No. 10-CV-1045, Judge Renee Marie Bumb.

Decided: September 3, 2013

ROBERT J. KOCH, Milbank, Tweed, Hadley & McCloy, LLP, of Washington, DC, argued for plaintiff-appellant. With him on the brief were FREDRICK M. ZULLOW and CHRISTOPHER J. GASPAR, of New York, New York.

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

TARANTO, *Circuit Judge*.

When the inventors applied for the patent at issue, they had sequenced one gene coding for one enzyme, using a test purportedly capable of finding other, similar genes. In writing its claims, the owner—now Bayer CropScience AG—decided to claim a broad category based on the function of the particular enzyme, defining the category by using a term with an established scientific meaning. In doing so, Bayer got ahead of the science: experiments had not confirmed that the term even applied to the particular enzyme whose gene Bayer's inventors had sequenced. Soon science showed that it did not, and Bayer knew as much years before its patent issued—but did not change its claim language. When it ultimately sued Dow AgroSciences for infringement, Bayer recognized that the term used, in its established scientific meaning, did not cover the accused product (itself different from the particular enzyme whose gene Bayer's inventors had sequenced), so it argued for a broad functional claim construction.

Applying our decisions about the potentially unwelcome consequences of a patentee's chosen claim language, the district court rejected Bayer's argument, explaining particularly the great breadth of the asserted functional construction, and entered summary judgment of non-infringement. We too are unpersuaded by Bayer's proposed claim construction. Because Bayer has presented no argument for reversing the non-infringement judgment independent of our adopting that construction, we affirm.

BACKGROUND

A

The patent at issue concerns genetically modifying plants in order to confer resistance to a commonly used herbicide called 2,4-dichlorophenoxyacetic acid, or "2,4-D" for short. The process works by inserting a particular DNA segment—a segment containing the sequence of nucleotides identified as the gene coding for a particular

enzyme—into plant cells, which then reproduce to create new cells that contain that gene. The plant cells produce the enzyme that then catalyzes a biochemical reaction with the 2,4-D herbicide in which the herbicide is broken down into something harmless to the plant. A plant with the gene can thereby survive application of the herbicide while surrounding weeds do not.

Bayer owns U.S. Patent No. 6,153,401, entitled "Microorganisms and Plasmids for 2,4-Dichlorophenoxyacetic Acid (2,4-D) Monooxygenase Formation and Process for the Production of These Plasmids and Strains." The application that eventually led to this patent was filed in the late 1980s. By that time, scientists had discovered that certain bacteria found in soil could grow on 2,4-D. To do so, those bacteria first convert 2,4-D into a substance called 2,4-dichlorophenol, or "2,4-DCP," which the bacteria, far from finding toxic, use as a "source[] of carbon and energy." '401 patent, col. 3, lines 22-24; *see id.*, col. 30, lines 34-36. Scientists hoped that, if they identified genes in such bacteria that coded for enzymes that catalyze 2,4-D-to-2,4-DCP reactions, they could then transfer the "ability to inactivate 2,4-D" to plants. *Id.*, col. 2, lines 27-30.

The inventors of the '401 patent were the first "to isolate, to clone, and to characterize" a gene that had that property, a gene from the soil bacterium strain *Alcaligenes eutrophus* JMP134. *Id.*, col. 1, lines 41-61. The patent sets forth the nucleotide sequence in Figure 10. It is the only gene identified in the '401 patent.

The specification explains the "growth test" used to isolate the identified gene. First, the inventors created a mutant strain of the bacterium that lacked the ability to grow on 2,4-D or convert it into 2,4-DCP. *Id.*, col. 22, line 56, through col. 25, line 42. Next, they fragmented the DNA of a non-mutant strain, which could still break down 2,4-D. *Id.*, col. 24, line 18, through col. 25, line 42. They then inserted the fragments into cells of the mutant strain, with (roughly speaking) no two fragments in the

same cell, and placed the cells on 2,4-D. When they identified cells that grew, they concluded that the DNA fragment that had restored the ability to grow on 2,4-D contained a gene producing an enzyme that caused the conversion of 2,4-D into 2,4-DCP. *Id.*, col. 25, lines 38-42. They used known sequencing techniques to identify the nucleotide sequence of the successful fragment. *Id.*, col. 27, line 37, through col. 29, line 4.[1]

Although this work led the inventors to the Figure 10 gene sequence, they did not fully understand the enzymatic reaction that they were studying. In particular, the reaction requires the presence of the oxygen molecule, O_2, but the inventors did not know where one of the two oxygen atoms wound up. There was no doubt about the first: it combines with 2,4-D to create an unstable, hydroxylated 2,4-D, which then spontaneously splits apart into 2,4-DCP and a compound called glyoxylate. The patent describes this process as "bringing about the cleavage of the side chain of 2,4-D." *Id.*, col. 2, lines 25-27. As for the second oxygen atom, however, the inventors at

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[1] Because the conversion of 2,4-D into 2,4-DCP was the first step (step A) of a known multi-step process for breaking down 2,4-D, an enzyme that catalyzes that first-step reaction has been called a TfdA enzyme—"Tfd" representing the initials of "two," "four," and "Dichlorophenoxyacetic Acid," and "A" referring to step A. Similarly, a gene that encodes for such an enzyme has been called a "*tfdA*" gene (no initial capital, sometimes but not always in italics). Bayer has recognized that both terms cover categories of differing structures. *See* Opening Br. at 19 ("'TfdAs'" (plural) are "enzymes" (plural) catalyzing the step A reaction); *id.* at 3 n.2 ("a '*tfdA*' gene encodes a 'TfdA' side-chain-cleaving enzyme"). Sometimes, however, the patent and other publications appear to have used the terms to refer to the particular Figure 10 gene and its particular enzyme product.

best simply shared the scientific community's unverified belief that this atom was incorporated into water. As was established beyond dispute in the district court in this case, enzymes catalyzing a reaction in which one oxygen atom ends up in water and the second is incorporated into a product other than water are called monooxygenases, and the '401 patent uses the term "monooxygenase" throughout the specification to characterize the enzyme whose gene it sequenced. And Bayer used the term "monooxygenase" in its claims—both alone and as part of "2,4-D-monooxygenase"—in the 1989 continuation-in-part application that eventually issued as the '401 patent. U.S. Patent Application No. 07/322,604, pp. 66-70 (filed Mar. 10, 1989).

Bayer's reliance on an unverified belief about its enzyme soon proved wrong. In 1993, when Bayer's application was still pending, scientists determined that it was incorrect to refer to Bayer's enzyme as a monooxygenase because the second oxygen atom does not actually end up in water. It was, instead, a dioxygenase, because both oxygen atoms are incorporated into products other than water. *See* Fumiyasu Fukumori & Robert P. Hausinger, Alcaligenes eutrophus *JMP134 "2,4-Dichlorophenoxyacetate Monooxygenase" Is an* α-*Ketoglutarate-Dependent Dioxygenase*, 175 J. Bacteriology 2083 (1993). Yet, despite the announcement of this discovery in the very title of the article, and Bayer's knowledge of the article, Bayer did not alter the claims of its application—which did not mature into a patent until seven years after the 1993 discovery. Accordingly, the '401 patent issued in 2000 with independent claim 1 reciting an artificially constructed gene as follows:

> A recombinant gene, comprising
>
> a DNA sequence encoding a polypeptide having the biological activity of 2,4-D monooxygenase which is capable of being expressed in a plant, operably linked to

> a heterologous promoter capable of promoting the expression in a plant of a structural gene operably linked thereto.

'401 patent, col. 32, lines 12-19. Dependent claim 4 claims the recombinant gene of claim 1 "wherein the DNA sequence is the structural gene sequence of FIG. **10**, except that the initiation codon is ATG," or certain specified variants. *Id.*, col. 32, lines 27-34.

B

Dow AgroSciences produces a line of genetically modified seeds that are resistant to 2,4-D as well as other herbicides. Dow's products use two genes—called *aad-1* and *aad-12*—that code for two AAD (AryloxyAlkanoate Dioxygenase) enzymes. Like the enzyme of Bayer's patent specification, those AAD enzymes are dioxygenases that catalyze a reaction in which 2,4-D converts to 2,4-DCP.

In December 2010, Bayer brought suit accusing Dow's seeds of infringing the '401 patent. Although Dow's products do not use the Figure 10 gene, Bayer argued that they fall within the broader claim 1, which encompasses enzymes that "hav[e] the biological activity of 2,4-D monooxygenase." Bayer's position from the outset has been that the quoted phrase covers any enzyme that triggers cleaving of the side chain of 2,4-D to produce 2,4-DCP, even if it is a dioxygenase and even if it does not share other biological activities of the particular enzyme whose gene Bayer sequenced. Because Dow's seeds contain genes coding for enzymes that allegedly cause the cleaving of 2,4-D's side chain, Bayer contended that they infringe.

After holding a *Markman* hearing with witness testimony and receiving cross-motions for summary judgment, the district court entered judgment in Dow's favor. *See Bayer CropScience AG v. Dow AgroSciences LLC*, Civ. No. 10-1045 RMB/JS, 2012 WL 4498527 (D. Del. Sept. 27, 2012). Limiting its analysis to the "biological activity of

2,4-D monooxygenase" phrase, the court rejected Bayer's view of its claims. Instead, the court concluded that the "plain and ordinary meaning" requires that "2,4-D monooxygenase" be read to embody the established scientific meaning of "monooxygenase," which involves one oxygen atom going to water, and that the whole phrase therefore means "the enzymatic activity of an enzyme, in a biological system, that causes a reaction with 2,4-D, and two molecules of oxygen, where one molecule of oxygen is added to 2,4-D and the other ultimately forms water." *Id.* at *4; *see id.* at *3-8. Under that construction, there was no dispute that Dow's products do not infringe because they are dioxygenases, even though they "create 2,4-D resistant plants" through an enzymatic activity that produces cleaving of the side chain of 2,4-D to yield 2,4-DCP. *Id.* at *2.

Having rejected Bayer's "broad functional-based" construction, *id.* at *8, the court went on to explain that, if it had concluded otherwise, it still would have granted summary judgment for Dow, just for a different reason. *Id.* at *8-10. Specifically, the court ruled that the claim so construed would "fail[] to satisfy the written description requirement of 35 U.S.C. § 112" because disclosing one gene and the test used to find it was not enough to capture the large genus that Bayer purported to have claimed. *Id.* Bayer appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

This case turns on claim construction, a matter that we review de novo. Specifically, it turns on whether Bayer's proposed construction of the term "the biological activity of 2,4-D monooxygenase" in the only independent claim (claim 1) is correct. Bayer rests its appeal entirely on the contention that the district court erred in failing to construe the term broadly to mean "bringing about the cleavage of the side chain of 2,4-D," without further qualification. Like the district court, we see two problems with this position: (A) familiar aspects of textual analysis

point strongly the other way; and (B) it would read independent claim 1 so broadly as to raise serious doubts about validity. Together, those problems lead us to conclude that Bayer's proposed claim construction is wrong, which leaves us with no basis for disturbing the district court's judgment of non-infringement of claim 1 (and hence all dependent claims).

A

To get to its construction of "the biological activity of 2,4-D monooxygenase" as "bringing about the cleavage of the side chain of 2,4-D," Bayer takes two steps. First, it treats the phrase "2,4-D monooxygenase" as not carrying the ordinary meaning of sending one of the two oxygen atoms to water—treating it instead either as if it said merely "oxygenase" or as if it were a proper name of a particular enzyme (or class) without any descriptive meaning. Second, Bayer broadens the claim coverage by defining the term "the biological activity of" as referring to any enzyme that alters 2,4-D by cleaving its side chain—neither encompassing other biological activities nor limited to those cleaving reactions that make the enzyme a *mono*oxygenase. Both steps encounter serious textual difficulties.

To begin with, these efforts fight a facially straightforward textual analysis. As the district court recognized, all agree that the word "monooxygenase" has long had a clear meaning—*i.e.*, an enzyme catalyzing a reaction in which one oxygen atom is incorporated into water and the second is incorporated into something other than water. *See Bayer*, 2012 WL 4498527, at *3-4. Putting "2,4-D" in front of "monooxygenase," then, appears to be simply the standard way of conveying what the monooxygenase acts on, namely, 2,4-D. And "the biological activity of," in turn, is naturally understood to refer to the activity that makes the identified enzyme a *mono*oxygenase that acts on 2,4-D: the attachment of one oxygen atom to the 2,4-D molecule to trigger cleaving with the other atom of O_2 going to water. Under this reading, the full phrase works

as an integrated unit in a way that fits its structure and the ordinary meaning of its words.

Arguing against this textual analysis, Bayer proposes a construction that first requires stripping the phrase "2,4-D monooxygenase" of the scientifically accepted descriptive content of the term "monooxygenase." Adopting Bayer's position, we think, would require that the '401 patent, or its history, make reasonably clear that Bayer was not using the term in its established descriptive sense. *See, e.g.*, *Abbott Labs. v. Syntron Bioresearch, Inc.*, 334 F.3d 1343, 1355 (Fed. Cir. 2003). Familiar claim-construction policies regarding public notice and patentee drafting duties make it appropriate to demand such clarity here: Bayer chose the language based on an unverified belief that it accurately described its enzyme, learned that the belief was false while its application was pending, had seven years before its patent issued to alter the language, but never did.

The patent and its history, however, do not clearly indicate that the patent uses the language at issue without its accepted scientific descriptive meaning. On the contrary, Bayer's usage in the intrinsic record is at the very best inconsistent. Much of it actually reinforces the straightforward descriptive meaning of the claim terms.

Nothing in the intrinsic record affirmatively indicates that, if the phrase "2,4-D monooxygenase" is descriptive, the "mono" part is to be ignored. Perhaps Bayer should have recognized that its background assumption that "mono" was accurate was unverified, and initially used a different phrase. But given its reliance on that assumption, one would hardly expect the 1989 written description to contain a redefinition to override the "mono" meaning.

As for any understanding of the claim phrase as a proper name whose "monooxygenase" portion lacks any descriptive significance, the intrinsic record provides Bayer nothing like clear support. The patent uses the phrase or its variants in different ways, sometimes with

an indefinite article implying a descriptive class-defining use, sometimes with other indicators that it is describing a genus (naturally defined by the ordinary meaning), and only sometimes as what might seem to be just a proper name (but even then without excluding an implication that the name conveys the underlying mechanism of action). *E.g.*, '401 patent, col. 1, lines 21-23 ("2,4-D-Monooxygenase is an enzyme catalyzing in many 2,4-D-degrading organisms the first step in the metabolizing of [2,4-D]."); *id.*, col. 2, lines 66-67 (referring to the enzyme's "2,4-D-monooxygenase activity"); *id.*, col. 1, line 63 (referring to "the tfdA-encoded 2,4-D-monooxygenase," the adjective suggesting a narrowing of the broader class identified by the noun).[2] The prosecution history is similar. Notably, claims filed in the 1989 application claimed "*a 2,4-D monooxygenase gene* . . . encoding a polypeptide having the biological activity of *such a monooxygenase*," U.S. Patent Application No. 07/322,604, pp. 66-67 (filed Mar. 10, 1989) (emphasis added)—language that reinforces rather than undermines the ordinary descriptive meaning.

The conclusion we draw is that there is no clear message that the patent gives Bayer's broad meaning to "2,4-D monooxygenase" in place of the term's accepted scientific meaning, which describes a particular mechanism of action. Bayer's usage in this court reinforces the conclusion. Much of Bayer's language continues to suggest a

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[2] *See also, e.g.*, '401 patent, col. 25, lines 13-14 ("a functional 2,4-D-monooxygenase"); *id.*, col. 2, line 25 ("[t]he tfdA gene codes for 2,4-D [monooxygenase]"); *id.*, col. 3, lines 5-6 ("the 2,4-D monooxygenase gene"); *id.*, col. 7, lines 15-16 ("the tfdA-coded 2,4-D-monooxygenase"); *id.*, col. 8, lines 7-8 ("the 2,4-D-monooxygenase activity"); *id.*, col. 25, lines 53-56 ("[p]lasmids . . . containing an intact tfda gene . . . can produce 2,4-D-monooxygenase in large amounts").

class-defining descriptive meaning. *See* note 1, *supra*; Opening Br. at 14 (claim 4 "recites the DNA sequence of one exemplary 2,4-D monooxygenase"); Reply Br. at 4 ("specification also unambiguously refers to a genus of genes encoding a genus of '2,4-D monooxygenases'"); Opening Br. at 15 ("One claim phrase is at issue here: 'biological activity of a 2,4-D monooxygenase.'").

Bayer's argument regarding the "biological activity" language of claim 1 is likewise unpersuasive. As the district court recognized, the ordinary meaning of that phrase alone places no particular limit on what kinds of activities in living cells are covered. *See Bayer*, 2012 WL 4498527, at *3-4. As indicated above, a natural narrowing is provided by giving "monooxygenase" its "mono" meaning: the "biological activity" would be that activity which makes the enzyme a *mono*oxygenase. But Bayer rejects both the all-biological-activities meaning and the premise of the narrowing integrated interpretation. Instead, it argues that the specification "defines" the "biological activity" claimed to be "bringing about the cleavage of the side chain of 2,4-D," no more and no less. We disagree.

The specification uses the phrase "biological activity" just twice. Bayer focuses heavily on the first appearance, which says: "The tfdA gene codes for 2,4-D monooxygenase, a polypeptide having the biological activity of bringing about the cleavage of the side chain of 2,4-D." '401 patent, col. 2, lines 25-27 (as corrected by certificate of correction). That language does not have the form of, or otherwise convey that it is, a definition of "the biological activity." It describes something that a "2,4-D monooxygenase" does, but it does not say that every enzyme with that function is a "2,4-D monooxygenase." *See Bayer*, 2012 WL 4498527, at *5. More is needed for a term with an established scientific meaning to be redefined in the specification.

The specification's second reference to "biological activity" actually works against Bayer's argument. In the

same column, the patent refers to "coding for a protein which has the biological activity of the protein encoded by tfda, e.g., its 2,4-D-monooxygenase activity." '401 patent, col. 2, lines 65-67. The use of "e.g.," rather than "i.e.," strongly suggests that there is more than one "biological activity." And "its 2,4-D monooxygenase activity" suggests the activity that makes it a *mono*oxygenase.

In short, as the district court explained, the claim language has a strong accepted scientific meaning. Bayer's alternative construction strips the monooxygenase half of the claim phrase of its accepted descriptive meaning and then asserts a specification "definition" of the biological-activity half. We do not find enough in the specification or prosecution history to justify those steps.

B

Bayer's construction has not only textual problems. It goes far beyond the Figure 10 enzyme, beyond *mono*oxygenases, beyond enzymes produced by bacteria found mainly in soil, to capture the broad functionally defined genus of enzymes that cause cleaving of the 2,4-D side chain. This broad reading would call into serious doubt the claim's validity under 35 U.S.C. § 112(a). *See Bayer*, 2012 WL 4498527, at *8-10.

In this case, which is not one in which a patentee invokes invalidity considerations to support a narrowing construction, Bayer seeks a broad construction of its own patent, and the alleged infringer Dow has raised invalidity problems with that construction. A record regarding those problems was extensively developed at the same time as the record for claim construction. In these circumstances, it is both possible and sensible to find that such grave doubts reinforce the textual objections to Bayer's proposed construction. This court's decision in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005), while observing that "validity analysis is [not] a regular component of claim construction," leaves room for reliance on this bolstering consideration where, as here, the record

on invalidity is sufficiently developed to establish grave validity doubts under the court's standards. *Id.* at 1327-28.[3]

Bayer's proposed construction broadly covers a class of enzymes defined by their function of causing cleaving of the side chain of 2,4-D, while its written description structurally identifies just one gene sequence and the enzyme it encodes. We have not articulated a comprehensive and precise formulation for identifying when such a combination runs afoul of Section 112(a)'s written-description requirement; indeed, we have counseled against "bright-line rules" in this area. *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). But we have indicated the primacy of structural identification for inventions in certain areas like the one at issue here, and when we have adverted to the possibility of other means of identification, we have focused on whether such alternative means sufficiently correlate with structure. *See, e.g.*, *Novozymes A/S v. DuPont Nutrition Biosciences APS*, No. 2012-1433, 2013 WL 3779376, at *14 (Fed. Cir. July 22, 2013); *Ariad*, 598 F.3d at 1350; *Carnegie Mellon Univ. v. Hoffman-La Roche Inc.*, 541 F.3d 1115, 1121, 1124 (Fed. Cir. 2008); *Univ. of Rochester v. G.D. Searle & Co., Inc.*, 358 F.3d 916, 925 (Fed. Cir. 2004) ("functional descriptions of genetic material can, in some cases, meet the written description requirement if those functional characteristics are 'coupled with a known or disclosed correlation between function and structure, or some combination of such characteristics'") (quoting *Enzo Biochem, Inc. v. Gen-Probe Inc.*, 323 F.3d 956, 964 (Fed. Cir. 2002)); *Regents of*

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[3] We identify the circumstances here simply to define what we are deciding, which leaves open to argument in a different case whether the same conclusion, or a different conclusion, would be warranted in circumstances different from those presented here.

Univ. of Cal. v. Eli Lilly & Co., 119 F.3d 1559, 1566, 1569 (Fed. Cir. 1997) (discussing situation where patent describes a "representative number" of species).

The coverage of claim 1 that Bayer proposes would leave the '401 patent far from providing even an indirect structural identification of all that would be within the claim's scope. The enzymatic function—under Bayer's construction, causing the cleaving of the side chain of 2,4-D—would be broad, yet the patent provides the DNA sequence (and hence amino-acid sequence) of just one embodiment. As the district court explained, *Bayer*, 2012 WL 4498527, at *9-10, neither the patent nor the knowledge in the art showed that what Bayer offered in place of a description of the shared structure—the growth test—correlated closely with an enzyme's structure. The patent provided what was "[a]t best . . . a roadmap [that would] 'leav[e] it to the . . . industry to complete [the] unfinished invention.'" *Novozymes*, 2013 WL 3779376, at *14. Moreover, the "roadmap" told a person of ordinary skill how to find some, perhaps even many, but not all members of the genus claimed under Bayer's broad construction, because enzymes not found in soil bacteria may catalyze 2,4-D-degrading reactions but could not be discovered (reliably or perhaps at all) using the growth test.

At oral argument in this court, Bayer has sought to mitigate this concern by expressly arguing that any genes not derived from soil bacteria would fall outside of the claimed genus. But Bayer did not present a claim construction based on that trimming effort to the district court, or even in its opening brief in this court. Rather than undertake to show how a "soil" limitation could be justified, Bayer argued for its broad construction, which contains no such limitation. *Bayer*, 2012 WL 4498527, at *3; Opening Br. at 6. Only Bayer's proposed construction, not a belated narrowing construction, is at issue. And the significant invalidity troubles that accompany Bayer's construction substantiate our rejection of it.

C

Neither party has presented us with a reason to go beyond rejecting Bayer's proposed claim construction. Our rejection of Bayer's construction settles the question of non-infringement and thus provides us with sufficient grounds for affirming summary judgment in Dow's favor. In other cases, this court has limited its claim-construction analysis to go no further than was required to affirm or otherwise rule on the judgment appealed. *See, e.g.*, *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1305 (Fed. Cir. 2007); *Rheox, Inc. v. Entact, Inc.*, 276 F.3d 1319, 1324-25 (Fed. Cir. 2002); *see also Leo Pharm. Prods., Ltd. v. Rea*, No. 2012-1520, 2013 WL 4054937, at *5 (Fed. Cir. Aug. 12, 2013). We take the same approach here. Bayer has not timely argued that it can prevail without the adoption of its broad construction, and we need not affirmatively construe the claims in order to affirm the district court's judgment.

Dow has offered two alternative constructions. Dow primarily defends the district court's construction, which reads claim 1 on its own terms and limits it to genes coding for "monooxygenases." *See Bayer*, 2012 WL 4498527, at *3-8. Dow also suggests a second, much narrower construction that would limit the claims by reference to the specific Figure 10 gene sequence.

The first of those alternatives is strongly supported by the most natural reading of the claim language, as we have explained. On the other hand, it excludes the specific gene based on Figure 10 that was Bayer's core invention. While that result is generally disfavored, there is no absolute rule against it, *Lucent Technologies, Inc. v. Gateway, Inc.*, 525 F.3d 1200, 1215-16 (Fed. Cir. 2008), and skilled artisans would readily understand the explanation here, namely, Bayer's initial mistaken belief about its enzyme's properties and then its insistence on retaining claim language reflecting that belief even after it was known to be false. The second of Dow's interpretations offers the advantage of protecting Bayer's specific se-

quencing invention. But the claim most tailored to that important advance, claim 4, is not a free-standing one; it is written as a dependent claim, thus requiring satisfaction of claim 1, whose language therefore must be properly construed. Moreover, it is hardly unknown for a patentee with an invention that could be protected to fail in securing such protection by bad choices in claim drafting. *See, e.g.*, *Chef Am., Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1374 (Fed. Cir. 2004); *Elekta Instrument S.A. v. O.U.R. Scientific Int'l, Inc.*, 214 F.3d 1302, 1308-09 (Fed. Cir. 2000).

We do not have to address the issues raised by the alternatives proffered by Dow. Nor do we have before us any other construction that Bayer might propose in another case. We need not say whether some narrower construction, if timely offered and defended by Bayer, would have enough to recommend it to overcome the difficulties we have found decisive against its broad construction. All we need and do say is that, because we do not accept the only claim construction under which Bayer has alleged infringement, we affirm the summary judgment of non-infringement.

AFFIRMED