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Martek Biosciences Corp. v. Nutrinova, Inc.: Flipping the Lexicographer Rule on its Head

IN *MARTEK BIOSCIENCES CORP. V. NUTRINOVA, INC.*,¹ THE FEDERAL CIRCUIT considered whether the claim term “animal” included humans where the patent specification provides a single sentence definition for the claim term.² The *Martek* court held that the term “animal” included humans because the specification contained a sentence that gave the term the broader construction of any Animalia organism rather than that of its ordinary meaning and the rest of the specification did not reveal the patentee’s clear intent to renounce such broad scope.³ In so holding, the *Martek* court ruled that when a patentee explicitly assigns a special meaning to a claim term anywhere in the specification, the new meaning controls unless the specification reveals that the patentee unmistakably rejects that definition.⁴ As such, the majority created a new rule that effectively turns the established lexicographer rule—that the specification must reveal the patentee’s clear intent to override the term’s ordinary meaning—on its head.⁵ If the majority had followed precedent, it would have found that *Martek* did not satisfy the lexicographer rule, and thus, held that *Martek*’s purported definition did not override the plain meaning of the term “animal,” which did not include humans.⁶ By announcing its new rule, the court conceivably modified the legal scope of patents drafted in reliance on the established lexicographer rule—either inconsistently broadening or narrowing such scope.⁷

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* J.D. 2011, University of Maryland School of Law.

1. 579 F.3d 1363 (Fed. Cir. 2009).
2. *Martek*, 579 F.3d at 1379–80. “Claim term” may refer to words or phrases in the claims section of the patent specification. In patent law, a bedrock principle is “that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004).
3. *Martek*, 579 F.3d at 1380.
4. *Id.*
5. See *infra* Part IV.A.
6. See *infra* Part IV.B.
7. See *infra* Part IV.C.

I. THE CASE

Docosahexaenoic acid (“DHA”) is an essential omega-3 fatty acid necessary for the development of organs such as the heart, brain, and eyes.⁸ Because the human body produces DHA only in limited quantities, a diet with supplemental DHA is desirable.⁹

Martek Biosciences Corp. (“Martek”) and Nutrinova, Inc., Nutrinova Nutrition Specialties and Food Ingredients GmbH, and Lonza, Ltd. (collectively “Lonza”) make and sell DHA products.¹⁰ The DHA is obtained by extracting lipids from fermented microorganisms.¹¹ The patents at issue relate to specified microorganisms that are useful for the commercial production of DHA because they produce high levels of DHA.¹² One of the patents at issue was Martek’s U.S. Patent No. 5,698,244 (“244 patent”), which is directed to methods for increasing the concentration of omega-3 highly unsaturated fatty acids (HUFA) in animals by feeding them the specified microorganisms.¹³

Before the district court, Martek alleged that Lonza infringed several patents, including the ‘244 patent.¹⁴ In a *Markman* hearing,¹⁵ the district court held that the claim term “animal” meant “any member of the kingdom Animalia, except humans.”¹⁶ Based on the claim construction, Martek stipulated that Lonza did not infringe the ‘244 patent because Lonza only used the alleged infringed methods to provide omega HUFA to humans.¹⁷ However, Martek preserved its right to appeal the court’s construction of the term “animal.”¹⁸ At trial, the jury found for Martek on all the other alleged claims.¹⁹ Lonza appealed, and Martek cross-appealed.²⁰ With

8. *Martek*, 579 F.3d at 1367. Moreover, omega-3 fatty acids have been recognized to have many additional health benefits, which include preventing arteriosclerosis and coronary heart disease, alleviating inflammatory conditions, and retarding tumor growth. U.S. Patent No. 5,698,244 col.1 ll.27–32 (filed June 7, 1995) (“244 Patent”).

9. *Martek*, 579 F.3d at 1367.

10. *Id.*

11. *Id.*

12. *Id.*

13. *Id.*

14. *Id.* at 1367–68.

15. A *Markman* hearing is a pretrial hearing where a judge determines the appropriate meanings of relevant key terms in a patent claim. See *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996) (holding that claim construction is a matter of law “exclusively within the province of the court”).

16. Order Construing the Terms of U.S. Patent Nos. 5,340,594; 5,698,244; 6,410,281; 6,451,567; and 6,607,900 at 1, *Martek Biosciences Corp. v. Nutrinova, Inc.*, No. 03-896, 2005 WL 6220494 (D.Del. Dec. 12, 2005) (internal quotation marks omitted).

17. *Martek*, 579 F.3d at 1379.

18. *Id.* at 1368.

19. *Id.* Both parties filed post-trial motions. Lonza moved for JMOL on some of the patent claims, and Martek moved for a permanent injunction. The district court granted Lonza’s motion for JMOL on one of the patent claims and Martek’s motion for a permanent injunction. *Id.*

20. *Id.*

respect to the ‘244 patent, Martek appealed the district court’s claim construction in the United States Court of Appeals for the Federal Circuit, arguing that the construction was erroneous.²¹

II. LEGAL BACKGROUND

In determining the meaning of claim terms, a patentee has the right to be his own lexicographer—to define the language used in his patent.²² The language in the patent claims defines the invention to which the patentee has the right to exclude.²³ Thus, in interpreting a patentee’s invention, the focus “must begin and remain centered on the claim language itself, for that is the language the patentee has chosen to particularly point[] out and distinctly claim[] the subject matter which the patentee regards as his invention.”²⁴ But because claims are part of a fully integrated written instrument, consisting primarily of a specification that concludes with the claims, the claim language must be read in light of the specification in its entirety.²⁵ As the Federal Circuit has stated, the specification “is always highly relevant to the claim construction analysis . . . ; it is the single best guide to the meaning of a disputed term.”²⁶

A. Unless the Patentee Clearly Intended to Assign a Unique Definition to a Claim Term, the Term Takes on its Ordinary Meaning.

A claim term takes on the meaning commonly attributed to it by those in the relevant fields unless it is clear in light of the entire specification that the patentee intended to deviate from the term’s ordinary meaning.²⁷ In *Phillips v. AWH Corp.*, the Federal Circuit reiterated the rule that a patentee is free to act as his own lexicographer, but only if he clearly defines the terms in the overall specification of

21. *Id.* at 1379–80.

22. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc); *Vitronics Corp. v. Conceptor, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

23. *Phillips*, 415 F.3d at 1312.

24. *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004) (quoting *Interactive Gift Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001)) (internal quotation marks omitted).

25. *Phillips*, 415 F.3d at 1315 (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995)).

26. *Vitronics*, 90 F.3d at 1582.

27. *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1383–84 (Fed. Cir. 2008) (holding that the phrase “partially hidden from view” meant hidden from view to some extent, but not totally hidden from view because the specification did not express a clear modification to the ordinary meaning of the term “partially”); *Free Motion Fitness, Inc. v. Cybex Int’l, Inc.*, 423 F.3d 1343, 1350 (Fed. Cir. 2005) (holding that “a” or “an” carried the ordinary meaning of “one or more” in open-ended claims containing the transitional phrase “comprising” and that such “convention is overcome only . . . when the patentee evinces a clear intent to . . . limit the article”) (internal quotation marks omitted); *see also infra* notes 28–38 and accompanying text.

the patent.²⁸ In doing so, the court held that the ordinary and accustomed meaning of the claim term “baffles”—load-bearing objects that check, impede, or obstruct flow—governed.²⁹ The court explained that the generic, dictionary definition of the term “baffles” in claim 1 of the patent referred to objects that served to check, impede, or obstruct the flow of something.³⁰ The court then stated that the specification did not clearly indicate that the patentee intended to depart from the accustomed meaning of the term.³¹

In support of its assertion, the court noted that claim 2, a claim that was dependent³² on claim 1, included a limitation that the “baffles” are “oriented with the panel sections disposed at angles . . . ,” which suggested that the patentee did not contemplate that the term “baffles” already contained that limitation in claim 1.³³ Moreover, the court pointed to other claims that provided additional requirements for the “baffles” such as dependent claim 6, which stated that “the internal baffles of both outer panel sections overlap and interlock at angles providing deflector panels extending from one end of the module to the other.”³⁴ The court explained that if the “baffles” mentioned in claim 1 “were inherently placed at specific angles, or interlocked to form an intermediate barrier, claim 6 would be redundant.”³⁵

In addition, the *Phillips* court stated that the fact that the specification provided descriptions of embodiments that were disposed at such angles to deflect projectiles was not enough to narrow the scope of the claims.³⁶ It explained that while the embodiments made clear that the invention envisioned baffles that served the projectile-deflecting function, the examples did not imply that the “baffles” must serve the deflecting function in all the embodiments covered by the claims.³⁷ Thus, the court concluded that the term “baffles” took on its ordinary and customary meaning, and was not restricted to non-perpendicular, projectile-deflecting structures.³⁸

Accordingly, the United States Patent and Trademark Office (“PTO”) requires that claim terms “conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support

28. *Phillips*, 415 F.3d at 1316.

29. *Id.* at 1327.

30. *Id.* at 1324.

31. *Id.*

32. A dependent claim is a claim that adopts the language and limitations of a single or multiple claims.

33. *Phillips*, 415 F.3d at 1324 (internal quotation marks omitted).

34. *Id.* at 1325 (internal quotation marks omitted).

35. *Id.*

36. *Id.*

37. *Id.*

38. *Id.* at 1327.

or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description”³⁹ Thus, to overcome an ordinary meaning presumption for terms in the claims, the specification, when viewed in its entirety, must make clear the patentee’s intent to replace the customary meaning with his own classification of the claim terms.⁴⁰

B. Claim Construction Cases in the Federal Circuit Have Demonstrated Factors that May Be Used to Assist Courts in Construing Claims.

Although there is no magic formula for claim construction, there are some factors that can be used to assist a person of ordinary skill in the art in determining what the patentee had in mind when he used a claim term.⁴¹ Often, a patentee will provide preferred embodiments—examples of how to practice the invention in a particular case—to teach a person of ordinary skill in the art how to make and use the invention.⁴² Upon reading the specification in that context, it may become clear “whether the patentee is setting out specific examples of the invention to accomplish those goals, or whether the patentee instead intends for the claims and the embodiments in the specification to be strictly coextensive.”⁴³ In addition, the location of particular limiting statements or the way the patentee uses a term within the specification and claims may also make the scope of the claim apparent.⁴⁴ Furthermore, a court may employ other factors to assist itself in construing a claim term.⁴⁵

C. Similarities Between the Disputed Claims and the Embodiments May Indicate that the Patentee Intended the Two to be Strictly Coextensive.

39. *Id.* at 1316–17 (internal quotation marks omitted).

40. *Helmsderfer*, 527 F.3d at 1381 (citing *Phillips*, 415 F.3d at 1316); *see also* *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 389 (stating that “a term can be defined only in a way that comports with the instrument as a whole”).

41. *Phillips*, 415 F.3d at 1323–24.

42. *Id.* at 1323.

43. *Id.*

44. *Id.* (“The manner in which the patentee uses a term within the specification and claims usually will make the distinction apparent.”).

45. *See id.* at 1324 (noting that there is no magic formula for claim construction).

Typically, particular embodiments appearing in the specification “will not be used to limit claim language that has broader effect.”⁴⁶ In *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, the parties disputed over the coverage of the claim language, “said tube operatively connected to said cap”⁴⁷ One of the arguments made by the alleged infringer was that the embodiment illustrated in the figures and written description showed “not merely adjoining or abutting, but affixing the tube to the cap by some tenacious means of physical engagement that results in a unitary structure.”⁴⁸ The Federal Circuit first determined that the ordinary and customary meaning of “operatively connected” in the disputed claim required the “linking together of the tube and the cap to produce the intended or proper effect.”⁴⁹ After making that determination, the court concluded that the embodiment in the specification was merely one example of the invention, and thus, did not limit the ordinary meaning of the claim term “operatively connected.”⁵⁰ It stated that even “where an applicant describes only a single embodiment,” the law does not require a court “to construe the claims as limited to that one embodiment.”⁵¹ The court then explained that unless there was a clear disavowal of the claim scope, the term “operatively connected” took on the full breadth of its plain meaning.⁵²

However, even though a claim term is not limited merely because the embodiments in the specification all contain a specific feature, a patentee’s choice of embodiments can help clarify the intended scope of the claim.⁵³ For example, in *C.R. Bard, Inc. v. U.S. Surgical Corp.*, the Federal Circuit recognized that similarities between the disputed claim language and the preferred embodiments can imply that they were intended to be conterminous.⁵⁴ The court noted that the claim language at issue was essentially equivalent to many of the preferred embodiments.⁵⁵ The only significant difference between the disputed claim and the preferred embodiments was an explicit description of the pleating.⁵⁶ Thus, the court

46. *Innova/Purewater, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1117 (Fed. Cir. 2004).

47. *Id.* at 1122 (internal quotation marks omitted).

48. *Id.* at 1121 (internal quotation marks omitted).

49. *Id.* at 1118 (internal quotation marks omitted).

50. *Id.* at 1122.

51. *Id.*

52. *Id.* at 1117, 1122.

53. *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 865 (Fed. Cir. 2004); *see also* *Snow v. Lake Shore & M.S. Ry. Co.*, 121 U.S. 617, 630 (1887) (noting that there was “nothing in the context to indicate that the patentee contemplated any alternative” embodiment to the one presented).

54. *C.R. Bard*, 388 F.3d at 866.

55. *Id.*

56. *Id.*

concluded that the preferred embodiments at least indicated that the claimed “implant” or “plug” required a pleated surface.⁵⁷

D. References to Claim Limitations as the Invention May Be Construed to Restrict the Scope of the Claims.

In *Honeywell International, Inc. v. ITT Industries, Inc.*,⁵⁸ the Federal Circuit utilized references to the invention to determine that the scope of the claim term “fuel injection system component” was limited to a fuel filter.⁵⁹ The court stated that a fuel filter was not simply discussed as a preferred embodiment of the claimed invention, but rather as the claimed invention.⁶⁰ The court then explained that on at least four occasions, the specification referred “to the fuel filter as ‘this invention’ or ‘the present invention’”⁶¹ The numerous references to the fuel filter as the invention allowed the court to conclude that the patentee intended the “fuel injection system component” to encompass a fuel filter.⁶² Similarly, in *Edwards Lifesciences LLC v. Cook Inc.*,⁶³ the court noted that “when the preferred embodiment is described in the specification as the invention itself, the claims are not necessarily entitled to a scope broader than that embodiment.”⁶⁴ As such, the *Edwards Lifesciences* court concluded that the specification at issue indicated intent to limit the invention to intraluminal devices (the preferred embodiment) by frequently describing an “intraluminal graft” as “the present invention” or “this invention.”⁶⁵

Moreover, the Federal Circuit has stated that the location of a statement referenced as the invention may further the probability that the statement will support the limitation of a claim term.⁶⁶ For example, the *C.R. Bard* court pointed out that statements describing the invention as a whole, rather than statements describing only preferred embodiments, “are more likely to support a limiting definition of a claim term.”⁶⁷ The court then explained that statements describing the invention as a whole are more likely to be found in particular sections of the

57. *Id.*

58. 452 F.3d 1312 (Fed. Cir. 2006).

59. *Id.*

60. *Id.*

61. *Id.*

62. *Id.*

63. 582 F.3d 1322 (Fed. Cir. 2009).

64. *Id.* at 1330 (quoting *Chimie v. PPG Indus. Inc.*, 402 F.3d 1371, 1379 (Fed. Cir. 2005)) (internal quotation marks omitted).

65. *Id.* at 1330.

66. *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 864 (Fed. Cir. 2004).

67. *Id.*

specification, such as the Summary of the Invention.⁶⁸ In *C.R. Bard*, the patent at issue contained a Summary of the Invention stating that “[t]he present invention is an implantable prosthesis and that [t]he implant includes a pleated surface . . .” [and an Abstract describing] “[a]n implantable prosthesis including a conical mesh plug having a pleated surface . . .”⁶⁹ Because the statements were in the Summary of the Invention and the Abstract, the Federal Circuit concluded that the claimed plug was defined globally as requiring a pleated surface.⁷⁰

E. Other Factors May Also Be Considered Because There is No Magic Formula for Claim Construction.

As the *Phillips* court understood, there is no rigid algorithm for claim construction.⁷¹ Because a claim term must be read in light of the specification in its entirety, a court may use other additional factors to determine what the patentee had in mind at the time of filing.⁷² Other factors that courts have used include whether the patentee distinguished the scope of the claim language by using different terms or phrases;⁷³ whether claim terms are interchangeably used in the specification;⁷⁴ whether a particular interpretation would exclude the preferred embodiment;⁷⁵ or whether a particular interpretation would deprive the claim of all clarity.⁷⁶

III. THE COURT’S REASONING

68. *Id.*

69. *Id.* at 860–61 (quoting U.S. Patent No. 5,356,432 col. 1, ll. 51–55 (filed Feb. 5, 1993)) (internal quotation marks omitted) (emphasis in original).

70. *Id.*

71. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1324 (Fed. Cir. 2005) (en banc).

72. *See id.* (explaining that there is no rigid algorithm for claim construction).

73. *See supra* notes 33–35 and accompanying text.

74. *See Edwards Lifesciences*, 582 F.3d at 1329 (concluding that the interchangeable use of the words “graft” and “intraluminal graft” was akin to equating the two terms).

75. *See Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1341 (Fed. Cir. 1999) (finding that the district court’s claim interpretation could not be sustained because the interpretation would have excluded the preferred embodiment described in the specification); *Vitronics Corp. v. Conceptiontronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996) (noting that an interpretation that excluded the preferred embodiment from the scope of a patent claim “is rarely, if ever, correct and would require highly persuasive evidentiary support”).

76. *See CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1367 (Fed. Cir. 2002) (noting that a claim term will not be given its ordinary meaning if such meaning deprives the claim of all clarity).

In *Martek Biosciences Corp. v. Nutrinova, Inc.*, the Federal Circuit, in a 3-2 decision, reversed the district court's construction of the claim term "animal" in the '244 patent.⁷⁷ The court held that when a patentee expressly defines a claim term anywhere in the patent specification, the patentee's definition controls unless there is a clear disavowal of the defined term.⁷⁸ Judge Garjarsa, writing for the majority, stated that a patentee is free to be his own lexicographer: a patentee's definition of a claim term controls, regardless of the term's ordinary meaning.⁷⁹ The court explained that, in this case, Martek expressly defined the claim term "animal" in the '244 patent: "The term 'animal' means any organism belonging to the kingdom Animalia."⁸⁰ Therefore, because there was no dispute that humans belong to the kingdom Animalia, the court found that Martek's definition for the term "animal" controlled.⁸¹

The court then stated that the '244 patent did not contain any language that could be reasonably interpreted as a clear intention to disclaim the coverage of humans from the broadly defined term "animal."⁸² First, the court asserted that the enumeration of preferred non-human animals did not clearly restrict the generally defined term.⁸³ The court explained that limitations in particular embodiments listed in the specification will not narrow claim language that has a broader effect unless the patentee has demonstrated a clear intention to restrict the claim's scope.⁸⁴ The court then explained that although the patent considered certain animals to be preferred animals from which food product is produced, it did "not state that all animals covered by the claims must produce a food product."⁸⁵ Second, the court stated that other sections of the patent did not establish an apparent intent to disclaim humans from the scope of the claims.⁸⁶ The court explained that the use of generic terms such as "'raising' and 'feeding' animals" or the fact that some dependent claims were directed to certain types of animals did not clearly limit the scope of the term "animal" to non-human animals.⁸⁷ Third, the court declared that the patent did contemplate that the invention could be applicable to humans.⁸⁸ In

77. *Martek Biosciences Corp. v. Nutrinova, Inc.*, 579 F.3d 1363, 1382 (Fed. Cir. 2009).

78. *Id.* at 1380.

79. *Id.*

80. *Id.* (quoting '244 Patent col.5 ll.11–12) (internal quotation marks omitted).

81. *Id.*

82. *Id.* at 1381.

83. *Id.* at 1380.

84. *Id.* at 1381 (citing *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1117 (Fed. Cir. 2004))

85. *Id.* at 1380–81.

86. *Id.* at 1381.

87. *Id.*

88. *Id.*

support of its assertion, the court pointed to the following statements in the specification:

The purified omega-3 highly unsaturated fatty acids can then be used as a nutritional supplement for humans, as a food additive, or for pharmaceutical applications. . . . [T]he whole-cell biomass can be used directly as a food additive to enhance the omega-3 highly unsaturated fatty acid content and nutritional value of processed foods for human intake or for animal feed. . . . A further aspect of the present invention includes introducing omega-3 HUFAs from the forgoing sources into humans for the treatment of various diseases.⁸⁹

Finally, the court concluded that Lonza's assertion that the customary meaning of "animal" is a non-human animal was irrelevant because the patent explicitly included a definition for "animal" in the specification.⁹⁰ Thus, the majority concluded that the appropriate construction for the claim term "animal" was "the one explicitly provided by the patentee: 'any organism belonging to the kingdom Animalia,' which include[d] humans."⁹¹

Judge Lourie dissented, concluding that the district court properly determined that the term "animal" only encompassed non-human animals.⁹² In reintroducing the principle that a patentee is free to be his own lexicographer, Judge Lourie did not disagree that Martek made an attempt at lexicography.⁹³ However, Judge Lourie explained that a claim term must be read in light of the overall written specification and not merely with a single sentence when that sentence is inconsistent with the rest of the written description.⁹⁴

Judge Lourie explained that the only independent claim⁹⁵ in the '244 patent is a "method of raising an animal, comprising feeding said animal material' that contains omega-3 highly unsaturated fatty acids 'in an amount effective to increase the content of omega-3 highly unsaturated fatty acids in said animal.'"⁹⁶ He then explained that the specification revealed an invention that was directed at a method for raising non-human animals.⁹⁷ Judge Lourie first pointed out that the Field of the Invention section of the patent stated that the "present invention concern[ed] a method for raising an animal having high concentrations of omega-3 highly unsaturated fatty acids (HUFA) and *food products derived from such animals*."⁹⁸ He

89. *Id.* at 1381–82 (citing '244 Patent col.7 ll.8–11, 42–45, 51–54).

90. *Id.* at 1382.

91. *Id.*

92. *Id.* at 1382 (Lourie, J., dissenting).

93. *Id.* at 1383.

94. *Id.*

95. An independent claim is a claim that does not adopt the language and limitations of other claims; it does not depend on other claims to define its scope.

96. *Martek*, 579 F.3d at 1383 (quoting '244 Patent col.9 ll.45–51).

97. *Id.*

98. *Id.* (quoting '244 Patent col.1 ll.21–24) (internal quotation marks omitted) (emphasis in original).

then explained that food products are not derived from humans.⁹⁹ Thus, he maintained that the invention was directed to only those animals from which food products can be derived.¹⁰⁰ In addition, he pointed out that the Brief Summary of the Invention stated that animals “raised by the method of the present invention include[d] poultry, cattle, swine and seafood, which include[d] fish, shrimp, and shellfish.”¹⁰¹ Finally, he stated that although preferred embodiments in a specification are usually not to be read into the claims, the listing of the preferred “food animal[s]” . . . strongly support[ed] a conclusion that the term ‘animal’ encompass[ed] only those animals raised for production of food and milk products, thereby not including humans.”¹⁰²

IV. ANALYSIS

In *Martek Biosciences Corp. v. Nutrinova, Inc.*, the Federal Circuit held that the single sentence definition for the term “animal” overrode any ordinary meaning of the term because the patent specification did not supply a clear and unmistakable renunciation of the special meaning.¹⁰³ In so holding, the *Martek* court created a new rule requiring the specification to demonstrate the patentee’s clear intent to override a single sentence definition for a claim term rather than mandating that the specification demonstrate the patentee’s clear intent to override that term’s ordinary meaning.¹⁰⁴ If the majority had followed precedent, it would find *Martek*’s one sentence description of the term “animal” inconsistent with the rest of the specification, and correctly conclude that the term “animal” only encompassed its ordinary and customary meaning because *Martek* did not demonstrate the requisite intent to override such meaning.¹⁰⁵ Instead, by formulating its new rule, the majority came to the wrong result and potentially altered the legal scope of patents filed prior to the *Martek* decision in such a way that is inconsistent with the previously established lexicographer rule.¹⁰⁶

99. *Id.* at 1383.

100. *Id.*

101. *Id.* at 1384 (quoting ‘244 Patent col.2 ll.19–23) (internal quotation marks omitted).

102. *Id.* at 1384 (quoting ‘244 Patent col.5 ll.12–29). The section of the patent reads:

Preferred animals from which to produce a food product include any *economic food animal*. More preferred animals include animals from which eggs, milk products, poultry meat, seafood, beef, pork or lamb is derived. Milk products include, for example, milk, cheese and butter. . . . Preferred animals for milk product production include milk-producing animal, in particular cows, sheep, goats, bison, buffalo, antelope, deer and camels. More preferred animals for milk production include cows, sheep and goats.

‘244 Patent col.5 ll.12–29 (emphasis added).

103. *Martek*, 579 F.3d at 1380 (majority opinion).

104. *See infra* Parts IV.A, C.

105. *See infra* Parts IV.A–B.

106. *See infra* Part IV.C.

A. *The Martek Court Should Have First Determined the Ordinary Meaning of the Claim Term “Animal” and Then Applied the Lexicographer Rule Reiterated in Phillips.*

The *Martek* court mistakenly rejected extrinsic evidence in the record that demonstrated the ordinary and customary meaning of the claim term “animal” as extraneous.¹⁰⁷ In construing a patentee’s invention, the court should first begin with the language of the claims themselves because there is initially a presumption that the ordinary meanings apply to the claim terms.¹⁰⁸ As the *Phillips* court stated, a patentee is free to assign a unique meaning to a claim term, but only if it is clear, in view of the specification as a whole, that he intended to diverge from the customary meaning of the word.¹⁰⁹ Hence, the court should have initially determined the ordinary meaning of “animal.”¹¹⁰ After assessing the ordinary meaning, the court would have been able to determine whether it was necessary to decide if Martek, the patentee in this case, demonstrated a clear intent in the overall specification to assign a special meaning to the term “animal,” i.e., if the ordinary meaning of “animal” included humans, then the burden would have gone to Lonza, the alleged infringer, to show that Martek unmistakably narrowed the scope of the term to non-human animals.¹¹¹

However, in this case, neither Martek nor the majority contested the fact that the ordinary meaning of the term “animal” excluded humans.¹¹² Instead, Martek and the majority relied on the single sentence in the specification: “The term ‘animal’ means any organism belonging to the kingdom Animalia.”¹¹³ Although it is true that humans belong to the kingdom Animalia, as Judge Lourie agreed in his dissent, the lexicographer rule is that in order for a patentee to assign a unique definition to a claim term, the patentee must demonstrate clearly in the specification as a whole that he intended to stray away from the ordinary meaning.¹¹⁴ If the majority would

107. *Martek*, 579 F.3d at 1382; see *infra* notes 108–115 and accompanying text.

108. See *supra* Part II.A.

109. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005).

110. See *supra* Part II.A.

111. See *supra* Part II.A. After the *Phillips* court determined that the ordinary meaning of “baffles” did not include non-perpendicular, projectile-deflecting structures, the burden shifted to the alleged infringer to demonstrate that the patentee clearly deviated from the ordinary meaning. See *supra* notes 28–38 and accompanying text.

112. See generally Principal and Response Brief for Plaintiff-Cross Appellant, *Martek Biosciences Corp. v. Nutrinova, Inc.*, Nos. 2008-1459, 2008-1476 (Fed. Cir. Nov. 21, 2008); Reply Brief For Plaintiff-Cross Appellant, *Martek Biosciences Corp. v. Nutrinova, Inc.*, Nos. 2008-1459, 2008-1476 (Fed. Cir. Jan. 22, 2009).

113. *Martek*, 579 F.3d at 1383 (Lourie, J., dissenting) (quoting ‘244 Patent col.5 ll.11–12) (internal quotation marks omitted).

114. *Id.* at 1384; see *supra* Part II.A.

have followed the lexicographer rule, it would have determined that Martek did not satisfy its burden in light of the overall specification.¹¹⁵

B. Claim Construction Factors Indicate that the Claim Term “Animal” Did Not Include Humans.

As Judge Lourie pointed out in his dissenting opinion, there is only one sentence in the entire specification that actually supported the argument that the term “animal” should have been broadened to include humans.¹¹⁶ Because Martek’s purported definition located in a single sentence in the ‘244 Patent was inconsistent with the rest of the specification, Martek could not have shown that it clearly intended to assigned a special meaning to the term “animal.”¹¹⁷ In light of the specification, the factors used by the Federal Circuit in claim construction cases demonstrated that the claim term “animal” would have been construed by one of ordinary skill in the art as “any member of the kingdom Animalia, except humans.”¹¹⁸

C. The Striking Similarities between the Language in the Only Independent Claim in the ‘244 Patent and One of the Embodiments Indicate that The Two Are Intended to be Strictly Coextensive.

In making its determination that the embodiments could not be used to bound the claim term “animal” to its ordinary meaning, the *Martek* court applied the incorrect rule to the facts in the instant case.¹¹⁹ In *Innova*, the court stated that the claim language took on the full breadth of its ordinary meaning unless there was a clear and unmistakable disavowal of the claim scope.¹²⁰ The *Martek* court, on the other hand, asserted that the claimed language took on the full breadth of Martek’s purported definition of the term “animal” unless Martek clearly indicated otherwise.¹²¹ The rule in *Innova* did not apply because Martek’s purported definition, which included humans, was much broader than the ordinary meaning of “animal,” and the dispute was not whether the ordinary meaning of the claim

115. See *infra* Part IV.B.

116. *Martek*, 579 F.3d at 1383.

117. See *infra* Parts IV.B.1–3.

118. *Martek*, 579 F.3d at 1382 (Lourie, J., dissenting) (quoting *Martek Biosciences Corp. v. Nutrinova, Inc.*, No. 03-896, 2005 WL 6220494 (D.Del. Dec. 12, 2005)) (internal quotation marks omitted); see *infra* Parts IV.B.1–3.

119. See *infra* notes 120–22 and accompanying text.

120. See *supra* notes 47–52 and accompanying text.

121. See *supra* note 78 and accompanying text.

language should be narrowed, but instead, whether the claim language should be broadened to include humans.¹²²

Instead, the *Martek* court should have looked to *C.R. Bard, Inc. v. U.S. Surgical Corp.* in deciding whether the embodiments prevented the claim language, “a method for raising animals . . . ,” from being broadened to include humans.¹²³ In *C.R. Bard*, the Federal Circuit found that similarities between the claim language—the invention being claimed by the patentee—and the embodiments could indicate that they were intended to be strictly coextensive.¹²⁴ In applying the analysis used in *C.R. Bard*, the *Martek* court would have found that the language of claim 1—the only independent claim in the ‘244 Patent—was strikingly similar to one of the embodiments listed in the “Brief Summary of the Invention.”¹²⁵ In the ‘244 Patent, claim 1 illustrated “[a] method of raising an animal comprising feeding said animal . . . *Thraustochytriales, omega-3 highly unsaturated fatty acids extracted from Thraustochytriales . . .*”¹²⁶ Similarly, the embodiment provided the following:

[A] method of raising an animal comprising feeding the animal *Thraustochytriales* or omega-3 HUFAs extracted therefrom. *Animals raised by the method of the present invention include poultry, cattle, swine and seafood, which includes fish, shrimp and shellfish. The omega-3 HUFAs are incorporated into the flesh, eggs, and milk products. A further embodiment of the invention includes such products.*¹²⁷

One ordinarily skilled in the art would read the embodiment itself as restricted to economic food animals, or animals from which food is produced from, because it only listed those types of animals.¹²⁸ The equivalent language used to describe both the sole independent claim and the embodiment listed in the Brief Summary of the Invention indicated that their interpretable boundaries were intended to be similar, if not the same.¹²⁹ Because economic food animals are not nearly as broad as all the members of the kingdom Animalia, the majority should not have extended the meaning of the term “animal” in the claims beyond the scope of its ordinary meaning.¹³⁰

122. See *supra* notes 47–52, 78 and accompanying text.

123. See *infra* notes 124–30 and accompanying text.

124. See *supra* notes 53–57 and accompanying text.

125. See *infra* notes 126–30 and accompanying text.

126. ‘244 Patent col.9 ll.45–51 (emphasis added).

127. ‘244 Patent col.2 ll.16–23 (emphasis added).

128. See *Martek Biosciences Corp. v. Nutrinova, Inc.*, 579 F.3d 1363, 1380–81 (Fed. Cir. 2009) (finding that the economic food animal limitation on the preferred embodiment did not narrow the scope of Martek’s term “animal”).

129. See *supra* notes 53–57 and accompanying text.

130. See *supra* notes 53–57 and accompanying text.

D. Statements Referenced As the Present Invention or the Invention Indicate that the Claimed Invention Should be No Broader than the Ordinary Meaning of the Claim Language.

The *Martek* court failed to incorporate, in its analysis, statements indicated as the present invention or the invention, which would have supported the notion that Martek did not unmistakably intend to assign a meaning, other than the ordinary meaning, to the claim term “animal.”¹³¹ In *Honeywell International, Inc. v. ITT Industries, Inc.* and in *Edwards Lifesciences LLC v. Cook Inc.*, the Federal Circuit found that statements designated as the invention limited the claim’s coverage to those statements.¹³² The *C.R. Bard* court further stated that those statements are especially relevant when they are located in sections that typically describe the invention as a whole.¹³³

In this case, the ‘244 Patent’s Field of Invention section, which usually describes the invention rather than embodiments, plainly stated that “[t]he present invention concerns a method for raising an animal having . . . high concentrations of omega-3 highly unsaturated fatty acids (HUFA) and *food products derived from such animals.*”¹³⁴ As Judge Lourie explained, “[f]ood products are not derived from humans.”¹³⁵ However, “food products” are derived from economic food animals such as “poultry, cattle, swine and seafood” as indicated in the “Brief Summary of the Invention,” which is another section that typically describes the invention in its entirety.¹³⁶ Again, because economic food animals are not nearly as broad as to include humans, the Field of Invention statement demonstrated that the “present invention” did not stretch beyond the scope of the original meaning of the term “animal.”¹³⁷

E. Other Factors Such as Distinctions between Humans and Animals Made in the Specification Indicate that Humans Were Not Included in the Claim Term “Animal.”

The *Martek* court should have used, rather than ignored, the distinctions that the specification made between humans and animals to find that Martek did not clearly

131. See generally *Martek*, 579 F.3d at 1379–83.
 132. See *supra* notes 59–65 and accompanying text.
 133. See *supra* notes 67–70 and accompanying text.
 134. ‘244 Patent col.1 ll.21–24 (emphasis added).
 135. *Martek*, 579 F.3d at 1383 (Lourie, J., dissenting).
 136. ‘244 Patent col.2 ll.19–23.
 137. See *supra* notes 53–57 and accompanying text.

intend to depart from the customary meaning of the term “animal.”¹³⁸ In *Phillips*, the court stated that limitations added to other claims made it likely that the patentee did not contemplate that the first claim, the text of which the other claims adopted, contained those limitations.¹³⁹ Similarly, there would be no need to differentiate humans from animals unless the patentee did not consider humans to be included in the category of “animal.”¹⁴⁰

In this case, Martek distinguished humans from animals several times in the specification of the ‘244 Patent.¹⁴¹ For example, in one section, Martek described how to integrate materials containing omega-3 HUFAs into animal feed.¹⁴² Thereafter, the patent discussed the details in purifying the omega-3 HUFAs to be “used as a nutritional supplement for humans, as a food additive, or for pharmaceutical applications.”¹⁴³ Moreover, humans and animals are explicitly distinguished later in the specification: “As discussed in detail above, the whole-cell biomass can be used directly as a food additive to enhance the omega-3 highly unsaturated fatty acid content and nutritional value of processed foods *for human intake or for animal feed.*”¹⁴⁴ As the dissent pointed out, if Martek had intended to for the term “animal” to include humans, there would be no need to distinguish humans from animals throughout the specification.¹⁴⁵ Furthermore, the patent discussed, in the same paragraph, the treatment of human diseases.¹⁴⁶ Again, because non-human animals suffer from the same diseases, there would be no reason to specify the treatment of humans.¹⁴⁷

Although the majority asserted that the discussion that distinguished humans and animals made it clear that Martek intended to include humans in the claim term “animal” by acknowledging the applicability of the invention to humans, it was an overstatement.¹⁴⁸ Typically, applicants do not claim everything in their specification because claims that are too broad are rejected by the PTO.¹⁴⁹ Consequently, the specification of a patent may identify that their invention is

138. See *infra* notes 139–47 and accompanying text.

139. See *supra* notes 33–35 and accompanying text.

140. See *infra* notes 33–35 and accompanying text.

141. See *infra* notes 142–47 and accompanying text.

142. ‘244 Patent cols.5–7 ll.30–7.

143. *Id.* at col.7 ll.8–11.

144. *Id.* at col.7 ll.42–45 (emphasis added).

145. *Martek*, 579 F.3d at 1384 (Lourie, J., dissenting).

146. ‘244 Patent col.7 ll.51–60.

147. *Martek*, 579 F.3d at 1384.

148. *Id.* at 1381–82 (majority opinion).

149. See *In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984) (stating that the Patent and Trademark Office broadly interprets claims during examination of a patent application so the applicant may amend his claims to obtain protection consistent with his actual contribution to the public.)

applicable in other ways or to other things; however, in patent law, the patentee only has rights to the invention written in the claim section of the specification.¹⁵⁰

F. The Majority's New Rule Potentially Alters the Legal Scope of Patents Drafted in Reliance on the Established Lexicographer Rule.

During patent examination, the PTO requires that pending claims be given their “broadest reasonable interpretation” consistent with the specification.¹⁵¹ Although it is understood that the PTO does not interpret patent claims during the examination process in the same manner as a court would interpret claims during an infringement action, patent applicants have in the past been able to rely on the fact that both the PTO and the courts interpret claims in light of the specification as a whole.¹⁵²

However, the majority's new rule eliminates this consistency in interpreting claims by the PTO in the course of prosecution and by the courts in infringement suits where the patent specification includes at least one sentence providing the term's special meaning somewhere in the specification.¹⁵³ Under the new rule, the sentence would govern the term's definition unless the specification revealed that the patentee unmistakably renounced the special meaning.¹⁵⁴ On the other hand, the established lexicographer rule required the patentee to demonstrate clear intent in light of the overall specification in assigning a special meaning to a term before the ordinary meaning of the term could be overridden.¹⁵⁵ As such, the new rule flips the previously established lexicographer rule on its head—requiring instead that the

150. See *supra* note 2; see also *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) (“The written description part of the specification itself does not delimit the right to exclude. That is the function and purpose of claims.”).

151. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (“The [PTO] determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction ‘in light of the specification as it would be interpreted by one of ordinary skill in the art.’”); see also 2111 Claim Interpretation; Broadest Reasonable Interpretation, http://www.uspto.gov/web/offices/pac/mpep/documents/2100_2111.htm (last visited Dec. 16, 2010).

152. See *In re Morris*, 127 F.3d 1048, 1048, 1054 (Fed. Cir. 1997) (holding that the PTO is not required during the patent examination process to interpret claims in applications in the same manner as a court would interpret claims in an infringement suit; and explaining that the “PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in applicant's specification”); see also 2111 Claim Interpretation; Broadest Reasonable Interpretation, http://www.uspto.gov/web/offices/pac/mpep/documents/2100_2111.htm (last visited Dec. 16, 2010).

153. See *infra* notes 154–55 and accompanying text.

154. *Martek Biosciences Corp. v. Nutrinova, Inc.*, 579 F.3d 1363, 1380 (Fed. Cir. 2009).

155. See *supra* Part.II.A.

specification must show clear intent to override the special meaning in favor of a term's ordinary meaning.¹⁵⁶

Patents with specifications providing a single sentence broadly describing a claim term will most likely be minimally, if at all, affected by the new additional inconsistency between claim interpretation in the course of prosecution and claim construction in infringement suits.¹⁵⁷ However, patents with specifications that seemingly supply an example or an embodiment while illustrating the claim term may have had their legal scope narrowed.¹⁵⁸ To demonstrate the effect that the majority's new rule may have on such patents drafted in reliance of the traditional lexicographer rule, the following sentence is provided:

A "controlled amount" of protic material is an amount up to that which inhibits the reaction of aniline with nitrobenzene, e.g., up to about 4% H₂O based on the volume of the reaction mixture when aniline is utilized as the solvent.¹⁵⁹

Without more, the sentence may illustrate that the definition assigned to a "controlled amount" of protic material based on volume when aniline is utilized as the solvent is about 4% H₂O.¹⁶⁰ According to the Federal Circuit in *Sinorgchem Co., Shandong v. ITC*, the sentence demonstrated the patentee's intent to define "controlled amount" as utilized in the patentee's claim language.¹⁶¹

Assuming that the specification at issue included the above sentence in an early section as well as a detailed chart in a later section, listing the various amounts of H₂O (e.g., 5, 6, 7, or 8 percent) which could potentially inhibit the reaction of aniline with nitrobenzene when aniline is utilized as the solvent, the traditional lexicographer rule would not limit the term "controlled amount" to about 4% H₂O when aniline is utilized as the solvent.¹⁶² Rather, the established lexicographer rule would allow a "controlled amount" of protic material to encompass any amount up to that which inhibits the reaction of aniline with nitrobenzene.¹⁶³

However, under the majority's new rule, the above sentence would govern the meaning of the term "controlled amount" unless the rest of the specification demonstrated that the patentee unmistakably intended to renounce the limited definition provided.¹⁶⁴ Because the detailed chart does not expressly state that any of the various amounts of H₂O listed is a "controlled amount," the heavy burden of the

156. See *supra* notes 154–55 and accompanying text.

157. The PTO will utilize broad descriptions of a claim term to determine the term's broadest reasonable interpretation. See *supra* note 151 and accompanying text.

158. See *infra* notes 159–65 and accompanying text.

159. *Sinorgchem Co., Shandong v. ITC*, 511 F.3d 1132, 1136 (Fed. Cir. 2007).

160. See *id.*

161. *Id.*

162. See *supra* Part II.A.

163. See *supra* Part II.A.

164. See *supra* note 78 and accompanying text.

majority's new rule to override the meaning supplied by the sentence would most likely not be satisfied.¹⁶⁵ As such, the broader scope of the claim language—and potentially other patents drafted prior to *Martek*—that would have been granted by the time-honored lexicographer rule has been greatly limited by the majority's new rule.¹⁶⁶

V. CONCLUSION

In *Martek Biosciences Corp. v. Nutrinova, Inc.*, the Federal Circuit held that the term “animal” included humans because the patent specification provided a single sentence definition that was not unquestionably renounced by the rest of the specification.¹⁶⁷ In so holding, the *Martek* court flipped the established lexicographer rule on its head, demanding the patentee to provide clear intent in the specification override a single sentence definition for a claim term as opposed to requiring the patentee to illustrate unambiguous intent to override that term's plain meaning.¹⁶⁸ If the majority had applied the established lexicographer rule, the court would have found that Martek's purported definition was not supported by the rest of the specification, and thereafter, correctly conclude that Martek did not satisfy its burden to overcome the customary meaning of the term “animal,” which did not include humans.¹⁶⁹ By developing its new rule, the court potentially modified the legal scope of patents drafted in reliance on the established lexicographer rule—either inconsistently broadening or narrowing such scope.¹⁷⁰

165. See *supra* notes 78 and accompanying text.

166. See *supra* notes 159–65 and accompanying text.

167. *Martek*, 579 F.3d at 1380 (majority opinion).

168. See *supra* Parts IV.A, C.

169. See *supra* Parts IV.A–B.

170. See *supra* Part IV.C.