IN THE UNITED STATES DISTRICT COURT
FOR DISTRICT OF DELAWARE

IMPOSSIBLE FOODS INC.,	)	CASE NO.: 1:22-cv-00311-CFC
	)	
Plaintiff,	)	**SECOND AMENDED**
	)	**COMPLAINT FOR DAMAGES**
v.	)	**AND INJUNCTIVE RELIEF**
	)	
MOTIF FOODWORKS, INC.,	)	
	)	**JURY TRIAL DEMANDED**
Defendant.	)	
	)	

Plaintiff Impossible Foods Inc. ("Impossible Foods") brings this Second Amended Complaint against defendant Motif FoodWorks, Inc. ("Motif" or "Defendant") and alleges, on personal knowledge as to its own actions and on information and belief as to the actions of others, as follows:

THE PARTIES

1. Plaintiff Impossible Foods is a Delaware corporation with its principal place of business at 400 Saginaw Drive, Redwood City, California. Impossible Foods develops and distributes plant-based meat products, including the well-known IMPOSSIBLE BURGER, IMPOSSIBLE SAUSAGE and IMPOSSIBLE MEATBALLS ("IMPOSSIBLE Products").

2. Defendant Motif is a Delaware corporation with its principal place of business at 27 Drydock Avenue, Boston, Massachusetts. Defendant advertises

itself as a provider of plant-based food ingredients, ingredient systems, and finished formulations of plant-based food.

3. Founded in 2011, Impossible Foods seeks to restore biodiversity and reduce the impact of climate change by transforming the global food system. To do this, it makes delicious, nutritious, affordable, and sustainable meat from plants. Impossible Foods' innovative approach to food science, powered by proprietary research and patent-protected technology, has allowed it to develop plant-based foods, including the award-winning IMPOSSIBLE BURGER, that recreates the entire sensory experience of eating meat despite being made from plants, without any animal meat or animal meat-derived ingredients. Impossible Foods has invested hundreds of millions of dollars in the research and development of these market-leading meat alternatives and has secured patents covering its innovative ingredients, food products and manufacturing processes.

4. Defendant has sought to compete with Impossible Foods with ingredients that make meat alternative products that allegedly taste, smell and feel like animal meat.

5. Impossible Foods brings this action for damages and injunctive relief to protect its innovative technology and products against Defendant's patent infringement.

NATURE OF THE ACTION

6. This is an action for patent infringement under title 35 of the United States Code.

7. As set forth in more detail below, Defendant has been infringing Impossible Foods' patents, including at least United States Patent Nos. 9,934,096 ("the '096 Patent"), 10,039,306 ("the '306 Patent"), 10,273,492 ("the '492 Patent"), 10,689,656 ("the '656 Patent"), 10,863,761 ("the '761 Patent"), 11,013,250 ("the '250 Patent"), and 11,224,241 ("the '241 Patent") (collectively, the "patents-in-suit"), and continues to do so through the present date.

8. Impossible Foods thus seeks injunctive relief against Defendant's infringement of its patents, as well as damages for Defendant's past and ongoing patent infringement.

JURISDICTION AND VENUE

9. This Court has subject matter jurisdiction of this suit for patent infringement pursuant to 28 U.S.C. §§ 1331 and 1338(a).

10. This Court has personal jurisdiction over Defendant because Defendant is incorporated in the State of Delaware.

11. Venue is proper in this District under 28 U.S.C. § 1400(b), because Defendant is incorporated in, and thus resides in, this District.

BACKGROUND

A. Impossible Foods' Innovative Technology and Patents

12. Founded in 2011 by Dr. Patrick O. Brown, Impossible Foods is a food innovator and seeks to develop and sell delicious, nutritious, affordable, and sustainable meat made from plants.

13. Early in its history, Impossible Foods assembled a team of scientists for an ambitious research investigation: determining which biological molecules make meat look, cook, and taste the way it does. The company discovered that heme, a biological molecule involved in oxygen transport, is a central component of meat's appeal, leading to meat's savory flavor and aroma and influencing how meat cooks. Specifically, heme is "the molecule that gives meat its bloody taste when raw and creates the intense, meaty flavors and aromas when it's cooked."[1] Impossible Foods set out to make plant-based foods that incorporate heme to replicate the taste, aroma, and overall sensory experience of meat. The IMPOSSIBLE Products include heme.

14. The heme in the IMPOSSIBLE Products is part of a hemoprotein molecule called soy leghemoglobin, or LegH. LegH occurs naturally in the root nodules of soy plants and, on information and belief, is not naturally produced in

[1] https://impossiblefoods.com/blog/how-gmos-can-save-civilization-and-probably-already-have

the body of any animal species. Impossible Foods discovered that the inclusion of leghemoglobin "transformed what would otherwise have been a dull tasting veggie burger into [] meat! And the meat cooked, smelled and tasted like meat from a cow."[2]

15. LegH can be produced by growing soy plants, harvesting the root nodules, and isolating the hemoprotein—but Impossible Foods discovered that this process was too inefficient for commercial production. Impossible Foods thus developed a proprietary strain of genetically modified *Pichia* yeast that produces LegH through a fermentation process.

16. Impossible Foods released IMPOSSIBLE BURGER in 2016 and reformulated it in 2019. IMPOSSIBLE BURGER is a meat replica product that replicates the flavor and texture of ground beef and can be used as a hamburger meat replacement for multiple applications. IMPOSSIBLE BURGER has won numerous awards, including "Best of the Best" at the 2019 Consumer Electronics Show, and is available in thousands of restaurants and grocery stores nationwide.

17. Impossible Foods has applied for, and has been awarded, patents regarding many elements and aspects of the manufacturing and composition of heme-containing meat replica products.

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[2] https://impossiblefoods.com/blog/heme-health-the-essentials

18. On April 17, 2018, the United States Patent and Trademark Office issued U.S. Patent No. 9,943,096 to Impossible Foods, entitled "Methods and Compositions for Affecting the Flavor and Aroma Profile of Consumables." A true and correct copy of the '096 Patent is attached as Exhibit 1.

19. On August 7, 2018, the United States Patent and Trademark Office issued U.S. Patent No. 10,039,306 to Impossible Foods, entitled "Methods and Compositions for Consumables." A true and correct copy of the '306 Patent is attached as Exhibit 2.

20. On April 30, 2019, the United States Patent and Trademark Office issued U.S. Patent No. 10,273,492 to Impossible Foods, entitled "Expression Constructs and Methods of Genetically Engineering Methylotrophic Yeast." A true and correct copy of the '492 Patent is attached as Exhibit 3.

21. On June 23, 2020, the United States Patent and Trademark Office issued U.S. Patent No. 10,689,656 to Impossible Foods, entitled "Expression Constructs and Methods of Genetically Engineering Methylotrophic Yeast." A true and correct copy of the '656 Patent is attached as Exhibit 4.

22. On December 15, 2020, the United States Patent and Trademark Office issued U.S. Patent No. 10,863,761 to Impossible Foods, entitled "Methods and Compositions for Consumables." A true and correct copy of the '761 Patent is attached as Exhibit 5.

23. On May 25, 2021, the United States Patent and Trademark Office issued U.S. Patent No. 11,013,250 to Impossible Foods, entitled "Methods and Compositions for Consumables." A true and correct copy of the '250 Patent is attached as Exhibit 6.

24. On January 18, 2022, the United States Patent and Trademark Office issued U.S. Patent No. 11,224,241 to Impossible Foods, entitled "Methods and Compositions for Affecting the Flavor and Aroma Profile of Consumables." A true and correct copy of the '241 Patent is attached as Exhibit 7.

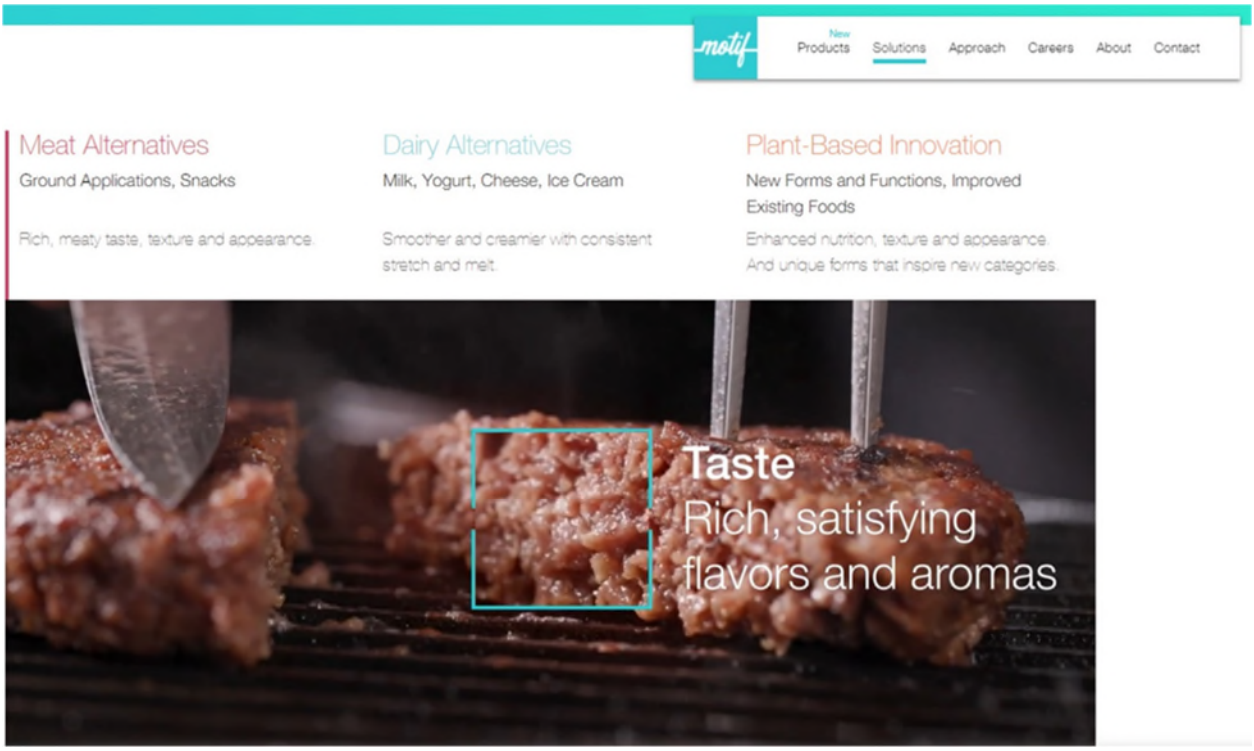
B. Defendant's Product Development

25. Defendant spun out of Ginkgo Bioworks Inc. ("Ginkgo Bioworks"), a genetic engineering company, in early 2019. Ginkgo Bioworks is still a major investor in Defendant.

26. Defendant describes its products as "Meat alternative options that consumers crave."

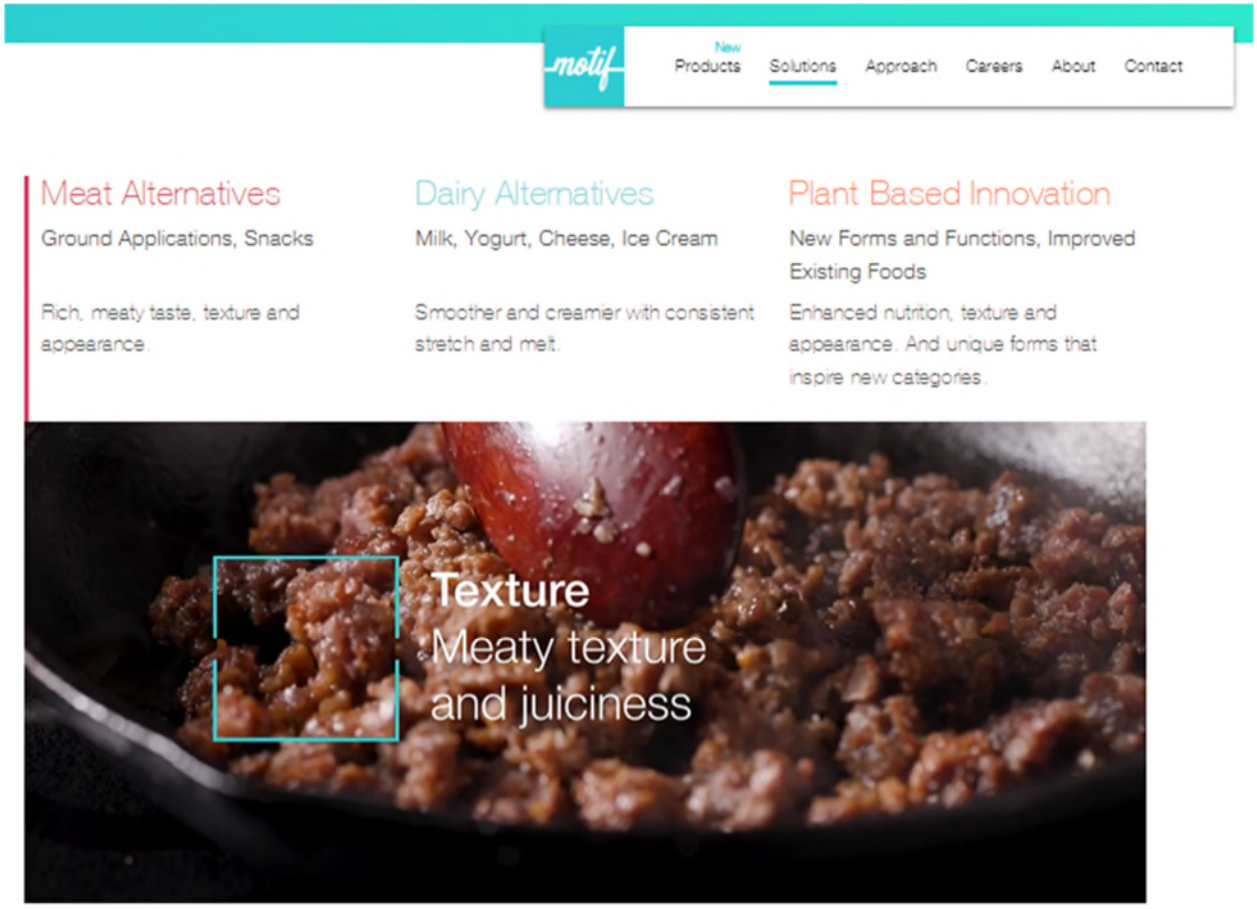
27. On its website, Defendant advertises that it sells "individual ingredients," "ingredient systems," and "finished formulations" of "plant-based food." Defendant includes pictures of various foods that purportedly replicate the

"taste, texture and appearance" of meat. For instance, Defendant's website depicts the following with respect to taste:



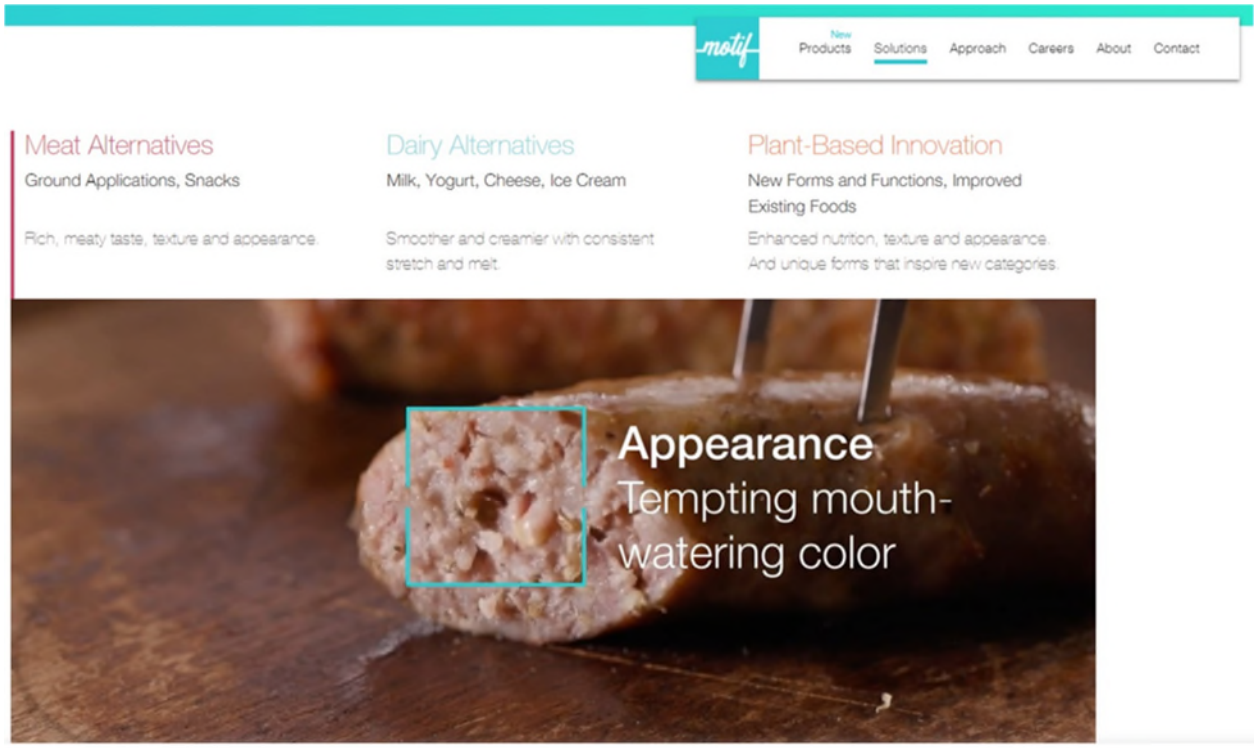
https://madewithmotif.com/solutions/

28. Defendant's website depicts the following with respect to texture:



https://madewithmotif.com/solutions/

29. Defendant's website depicts the following with respect to appearance:



https://madewithmotif.com/solutions/

30. Defendant markets meat alternatives that include the ingredient HEMAMI, which purportedly provides "meat alternatives" with "[t]he real umami flavors, appearance and aromas of meat."[3] Its website notes that HEMAMI "tastes and smells like meat because it uses the same naturally

[3] https://madewithmotif.com/solutions/

occurring heme protein" and bestows "[m]outh-watering aromas that engage the senses—while cooked and right before you take your first bite."[4]

31. As Defendant's website notes, HEMAMI contains heme.

32. In an April 2021 submission to the Food and Drug Administration (FDA) Office of Food Additive Safety (hereinafter "the Motif GRAS Notice"), Defendant stated that "Motif FoodWorks' myoglobin ingredient is a liquid flavoring preparation (herein referred to as Myoglobin Preparation) containing myoglobin produced by fermentation from a modified strain of *Pichia pastoris* expressing the myoglobin gene from *Bos taurus*" (hereinafter, "the Infringing Yeast"). A true and correct copy of the Motif GRAS Notice is attached as Exhibit 8.

33. On information and belief, HEMAMI contains the bovine myoglobin preparation that is the subject of the Motif GRAS Notice.

34. In a December 2021 submission to the FDA Office of Food Additive Safety (hereinafter "the Motif Color Additive Petition"), Defendant further described the Infringing Yeast and stated "Motif Foodworks' myoglobin is produced using a modified strain of *P. pastoris*" and "*P. pastoris* [] was then

[4] https://madewithmotif.com/solutions/

modified to express *Bos taurus* (bovine myoglobin) protein." A true and correct copy of an excerpt of the Motif Color Additive Petition is attached as Exhibit 9.

C. Defendant's Infringing Products, Infringing Yeast, and Activities

35. Defendant has made and demonstrated a meat replica at trade shows, including the Plant Based World Expo in New York in December 2021. Defendant has since demonstrated its meat replica at Natural Products Expo West in Anaheim, California in March 2022; the Future Food-Tech Expo in San Francisco, California in March 2022; and the National Restaurant Association Show in Chicago, Illinois in May 2022. The meat replica that Defendant demonstrated infringes the patents-in-suit.

36. Defendant's meat replica includes its HEMAMI ingredient. Defendant's meat replica products (including but not limited to its burgers and sausage products, sometimes designated as the Motif BeefWorks™ Plant-Based Burger Patties and Plant-Based Ground and Motif PorkWorks™) are hereinafter collectively referred to as "the Infringing Products."

37. In the summer of 2021, Defendant partnered with Coolgreens, a restaurant chain with a location in Dallas, TX, to produce and sell meat replica products containing HEMAMI. Defendant and Coolgreens sold the Infringing Products from Coolgreens' Dallas restaurant.

38. Defendant notes on its website that its Motif BeefWorks™ Plant-Based Burger Patties are "Available now." Defendant also describes the Infringing Products (infringing burgers) it sold from Coolgreens' Dallas restaurant as "Motif BeefWorks™ Plant-Based Burger Patties."

39. On information and belief, Defendant has had opportunities to obtain non-public information regarding Impossible Foods' proprietary yeast and methods of making its proprietary heme-containing protein.

40. Defendant recently launched HEMAMI for sale to customers with the intent that customers integrate HEMAMI into their own plant-based meat alternatives.

41. Defendant is currently constructing a research, development, and production facility in Massachusetts that it intends to use for fermentation, ingredient production, and finished product production, including, on information and belief, making, propagating, and maintaining the yeast cells containing the heme-containing bovine myoglobin used in the production of HEMAMI (the Infringing Yeast), manufacturing the heme-containing bovine myoglobin included in HEMAMI, production of HEMAMI, and production of finished meat replica products integrating HEMAMI. Defendant plans for the facility to be fully online this year.

42. Solar Biotech, which has a facility in Virginia that has been used to manufacture HEMAMI, also announced, on January 28, 2022, that it would continue to support the yeast-based production and manufacturing of HEMAMI for Defendant including, on information and belief, the making, propagation, and maintenance of the Infringing Yeast used in the production of HEMAMI.

43. On information and belief, the HEMAMI, Infringing Products, and the Infringing Yeast which Defendant has made, used, sold, offered for sale, and/or demonstrated for marketing purposes, infringe, contain infringing ingredients, and/or are made by the use of processes or methods that infringe, one or more of the patents-in-suit.

44. Defendant is and has been aware that the inclusion of HEMAMI in meat replica products is a violation of Impossible Foods' patent rights and has touted HEMAMI as a substitute for Impossible Foods' patented technology in its marketing communications.

45. For example, Defendant's official Twitter account, @motiffoodworks, retweeted a link to an article in The Spoon, a food technology trade publication, from February 7, 2022. That article stated that the launch of HEMAMI "is good news if you're a maker of alt-meat products who wants to replicate Impossible's proprietary plant-based heme, because now instead of

spending tens of millions trying to build it yourself, now you can buy a similar technology from Motif."[5]

46. As another example, Defendant's former CEO, Jonathan McIntyre, provided a quote pertaining to Defendant's new Massachusetts facility that was included in a December 8, 2021 article in Vegconomist, a vegan industry trade publication. That article noted that "heme represented Impossible Foods' most closely-guarded flavor secret, and the $2 billion company held exclusive patent rights and knowledge on producing and commercializing it."[6]

47. In addition, Ginkgo Bioworks' CEO, in an article announcing a round of fundraising completed by Defendant, described Defendant's strategy as follows: "We'll brew up the next 100 hemes so that we can see many more Impossible Burgers in the next few years."[7]

COUNT I: INFRINGEMENT OF THE '096 PATENT

48. Impossible Foods incorporates and re-alleges ¶¶ 1-47 as though fully stated herein.

49. Impossible Foods is the owner of all right, title, and interest in and to the '096 Patent. Impossible Foods has the exclusive right to make, use, sell, and

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5 https://twitter.com/RethinkFoodVC/status/1490690290147078145?s=20&t=DD9WjVymcPhHCw3z0SpqUA

6 https://vegconomist.com/products-launches/motif-foodworks-heme/

7 https://www.inc.com/jeff-bercovici/motif-food-biotech.html

offer to sell any product embodying the ’096 Patent throughout the United States, and to import any product embodying the ’096 Patent into the United States.

50. The ’096 Patent claims and describes an invention comprising a food flavor additive composition, comprising an isolated heme-containing protein, a compound selected from a list of sugar compounds, and a compound selected from a list of sulfur-containing compounds, wherein the flavor additive composition contains no animal products and wherein cooking the food flavor additive composition results in the production of at least two volatile compounds which have a meat-associated aroma.

51. On information and belief, Defendant has been and is now infringing at least claim 1 of the ’096 Patent in the United States by, among other things, directly or through intermediaries, making, using, selling, and/or offering for sale the Infringing Products, which are covered by one or more claims of the ’096 Patent, to the injury of Impossible Foods. In particular, the Infringing Products comprise a food flavor additive composition, comprising an isolated heme-containing protein, a compound selected from the list of sugar compounds in claim 1 of the ’096 Patent , and a compound selected from the list of sulfur-containing compounds in claim 1 of the ’096 Patent, wherein the flavor additive composition contains no animal products and wherein cooking the food flavor

additive composition results in the production of at least two volatile compounds which have a meat-associated aroma.

52. Defendant is directly infringing, literally and/or under the doctrine of equivalents, the ’096 Patent. Defendant is thus liable for infringement of the ’096 Patent pursuant to 35 U.S.C. § 271(a).

53. Defendant infringes the ’096 Patent because it makes, uses, sells and/or offers for sale the invention of the ’096 Patent. In particular, Defendant infringes at least claim 1 of the ’096 Patent by making, using, selling and/or offering for sale HEMAMI and/or the Infringing Products.

54. On information and belief, Defendant will continue to infringe the ’096 Patent unless enjoined.

55. Defendant contributes to infringement of the ’096 Patent under 35 U.S.C. § 271(c) inasmuch as it provides a component of the Infringing Products, *e.g.*, HEMAMI and/or the Infringing Yeast, which constitutes a material part of Impossible Foods’ invention, to another, knowing the same to be especially made or especially adapted for use in infringement of the ’096 Patent.

56. On information and belief, Defendant will continue to contribute to infringement of the ’096 Patent unless enjoined.

57. Defendant actively encourages its business partners to make, use, sell, and/or offer for sale the Infringing Products. Defendant is aware of

Impossible Foods' proprietary IMPOSSIBLE BURGER. Moreover, Defendant is aware of the '096 Patent. Despite such knowledge, Defendant has actively induced its business partners to make, use, sell, and/or offer for sale HEMAMI and/or the Infringing Products in a way that constitutes infringement. Defendant has encouraged this infringement with a specific intent to cause its business partners and customers to infringe. Defendant's acts thus constitute active inducement of patent infringement in violation of 35 U.S.C. § 271(b).

58. On information and belief, Defendant will continue to induce infringement of the '096 Patent unless enjoined.

59. Defendant's direct infringement, contributory infringement, and inducement of infringement have irreparably harmed Impossible Foods.

60. Pursuant to 35 U.S.C. § 284, Impossible Foods is entitled to damages adequate to compensate for Defendant's infringement.

61. Defendant's infringement has been and is willful and, pursuant to 35 U.S.C. § 284, Impossible Foods is entitled to treble damages. Defendant's willful infringement is based at least on Defendant's knowledge of Impossible Foods, its manufacturing techniques, its products, and its patents (*see, e.g.*, ¶¶ 32, 34, 44-47, *supra*). Moreover, Defendant has had actual knowledge of its infringement of the '096 Patent at least since the filing of Impossible Foods' First Amended Complaint. Defendant's conduct is egregious as it has continued offering, selling,

making and/or using the Infringing Products despite knowledge of the infringement. Defendant has either willfully and wantonly infringed the ’096 Patent or has recklessly avoided knowledge of its own infringement, even when faced with knowledge of Impossible Foods’ own products and patents.

COUNT II: INFRINGEMENT OF THE ’306 PATENT

62. Impossible Foods incorporates and re-alleges ¶¶ 1-61 as though fully stated herein.

63. Impossible Foods is the owner of all right, title, and interest in and to the ’306 Patent. Impossible Foods has the exclusive right to make, use, sell, and offer to sell any product made by the method of the ’306 Patent throughout the United States, and to import any product made by the invention of the ’306 Patent into the United States.

64. The ’306 Patent claims and describes an invention comprising a method for imparting a beef-like aroma to a meat replica matrix, wherein the meat replica matrix comprises one or more plant proteins, a sugar selected from a list of sugar compounds, and a sulfur-containing compound selected from a list of sulfur-containing compounds, where the method comprises adding 0.01%-5% (by weight of the meat replica matrix) of a non-animal heme-containing protein to the meat replica matrix, wherein, upon cooking of the meat replica matrix, at least

two volatile compounds are generated that are associated with a beef-like aroma, thereby imparting a beef-like aroma to the meat replica matrix.

65. On information and belief, Defendant has been and is now infringing at least claim 1 of the ’306 Patent in the United States by, among other things, directly or through intermediaries, using the invention of the’306 Patent to make the Infringing Products, to the injury of Impossible Foods. In particular, the Infringing Products are made by a process comprising a method for imparting a beef-like aroma to a meat replica matrix, wherein the meat replica matrix comprises one or more plant proteins, a sugar selected from the list of sugar compounds in claim 1 of the ’306 Patent , and a sulfur-containing compound selected from the list of sulfur-containing compounds in claim 1 of the ’306 Patent, where the method comprises adding 0.01%-5% (by weight of the meat replica matrix) of a non-animal heme-containing protein to the meat replica matrix, wherein, upon cooking of the meat replica matrix, at least two volatile compounds are generated that are associated with a beef-like aroma, thereby imparting a beef-like aroma to the meat replica matrix.

66. Defendant is directly infringing, literally and/or under the doctrine of equivalents, the ’306 Patent. Defendant is thus liable for infringement of the ’306 Patent pursuant to 35 U.S.C. § 271(a).

67. Defendant infringes the ’306 Patent because it uses the invention of the ’306 Patent. In particular, Defendant infringes at least claim 1 of the ’306 Patent by making the Infringing Products.

68. On information and belief, Defendant will continue to infringe the ’306 Patent unless enjoined.

69. Defendant contributes to infringement of the ’306 Patent under 35 U.S.C. § 271(c) inasmuch as it provides a component of the Infringing Products, *e.g.*, HEMAMI and/or the Infringing Yeast, which constitutes a material part of Impossible Foods’ invention, to another, knowing the same to be especially made or especially adapted for use in infringement of the ’306 Patent.

70. On information and belief, Defendant will continue to contribute to infringement of the ’306 Patent unless enjoined.

71. Defendant actively encourages its business partners to make, use, sell, and/or offer for sale the Infringing Products. Defendant is aware of Impossible Foods’ proprietary IMPOSSIBLE BURGER. Moreover, Defendant is aware of the ’306 Patent. Despite such knowledge, Defendant has actively induced its business partners to make, use, sell, and/or offer for sale the Infringing Products in a way that constitutes infringement. Defendant has encouraged this infringement with a specific intent to cause its business partners and customers to

infringe. Defendant's acts thus constitute active inducement of patent infringement in violation of 35 U.S.C. § 271(b).

72. On information and belief, Defendant will continue to induce infringement of the '306 Patent unless enjoined.

73. Defendant's direct infringement, contributory infringement, and inducement of infringement have irreparably harmed Impossible Foods.

74. Pursuant to 35 U.S.C. § 284, Impossible Foods is entitled to damages adequate to compensate for Defendant's infringement.

75. Defendant's infringement has been and is willful and, pursuant to 35 U.S.C. § 284, Impossible Foods is entitled to treble damages. Defendant's willful infringement is based at least on Defendant's knowledge of Impossible Foods, its manufacturing techniques, its products, and its patents (*see, e.g.*, ¶¶ 32, 34, 44-47, *supra*). Moreover, Defendant has had actual knowledge of its infringement of the '306 Patent at least since the filing of Impossible Foods' First Amended Complaint. Defendant's conduct is egregious as it has continued offering, selling, making and/or using the Infringing Products despite knowledge of the infringement. Defendant has either willfully and wantonly infringed the '306 Patent or has recklessly avoided knowledge of its own infringement, even when faced with knowledge of Impossible Foods' own products and patents.

76. This case is "exceptional" within the meaning of 35 U.S.C. § 285, and Impossible Foods is entitled to an award of attorneys' fees.

COUNT III: INFRINGEMENT OF THE '492 PATENT

77. Impossible Foods incorporates and re-alleges ¶¶ 1-76 as though fully stated herein.

78. Impossible Foods is the owner of all right, title, and interest in and to the '492 Patent. Impossible Foods has the exclusive right to make, use, sell, and offer to sell any product embodying the '492 Patent throughout the United States, and to import any product embodying the invention of the '492 Patent into the United States.

79. The '492 Patent claims and describes an invention comprising a methylotrophic *Pichia* yeast cell comprising: a nucleic acid molecule encoding a heme-containing protein operably linked to a promoter element from *P. pastoris* and a Mxr1 transcriptional activator sequence from *P. pastoris*; and a nucleic acid molecule encoding at least one polypeptide involved in heme biosynthesis operably linked to a promoter element from *P. pastoris* and a Mxr1 transcriptional activator sequence from *P. pastoris*.

80. On information and belief, Defendant has been and is now infringing at least claim 1 of the '492 Patent in the United States by, among other things, directly or through intermediaries, making, using, selling, and/or offering for sale

the Infringing Yeast, which are covered by one or more claims of the ’492 Patent, to the injury of Impossible Foods. On information and belief, the Infringing Yeast are methylotrophic *Pichia* yeast comprising a nucleic acid molecule encoding a heme-containing protein operably linked to a promoter element from *P. pastoris* and an Mxr1 transcriptional activator sequence from *P. pastoris*; and a nucleic acid molecule encoding at least one polypeptide involved in heme biosynthesis operably linked to a promoter element from *P. pastoris* and a Mxr1 transcriptional activator sequence from *P. pastoris*. Defendant is making and using the Infringing Yeast to manufacture the Infringing Products.

81. Defendant is directly infringing, literally and/or under the doctrine of equivalents, the ’492 Patent. Defendant is thus liable for infringement of the ’492 Patent pursuant to 35 U.S.C. § 271(a).

82. Defendant infringes the ’492 Patent because it makes, uses, sells, and/or offers for sale the invention of the ’492 Patent. In particular, Defendant infringes at least claim 1 of the ’492 Patent by making, using, selling and/or offering for sale the Infringing Yeast.

83. On information and belief, Defendant will continue to infringe the ’492 Patent unless enjoined.

84. On information and belief, Defendant contributes to infringement of the ’492 Patent under 35 U.S.C. § 271(c) inasmuch as it provides the Infringing

Yeast, which constitute a material part of Impossible Foods' invention, to another, knowing the same to be especially made or especially adapted for use in infringement of the '492 Patent.

85. On information and belief, Defendant will continue to contribute to infringement of the '492 Patent unless enjoined.

86. On information and belief, Defendant actively encourages its business partners to make, use, sell, and/or offer for sale the Infringing Yeast. Defendant is aware of Impossible Foods' proprietary yeast used in heme production. Moreover, Defendant is aware of the '492 Patent. Despite such knowledge, Defendant has actively induced its business partners to make, use, sell, and/or offer for sale the Infringing Yeast in a way that constitutes infringement. Defendant has encouraged this infringement with a specific intent to cause its business partners and customers to infringe. Defendant's acts thus constitute active inducement of patent infringement in violation of 35 U.S.C. § 271(b).

87. On information and belief, Defendant will continue to induce infringement of the '492 Patent unless enjoined.

88. Defendant's direct infringement, contributory infringement, and inducement of infringement have irreparably harmed Impossible Foods.

89. Pursuant to 35 U.S.C. § 284, Impossible Foods is entitled to damages adequate to compensate for Defendant's infringement.

90. Defendant's infringement has been and is willful and, pursuant to 35 U.S.C. § 284, Impossible Foods is entitled to treble damages. Defendant's willful infringement is based at least on Defendant's knowledge of Impossible Foods, its manufacturing techniques, its products, and its patents (*see, e.g.*, ¶¶ 32, 34, 44-47, *supra*). Defendant's conduct is egregious as it has continued offering, selling, making and/or using the Infringing Yeast despite knowledge of the infringement. Defendant has either willfully and wantonly infringed the '492 Patent or has recklessly avoided knowledge of its own infringement, even when faced with knowledge of Impossible Foods' own products and patents.

91. This case is "exceptional" within the meaning of 35 U.S.C. § 285, and Impossible Foods is entitled to an award of attorneys' fees.

COUNT IV: INFRINGEMENT OF THE '656 PATENT

92. Impossible Foods incorporates and re-alleges ¶¶ 1-91 as though fully stated herein.

93. Impossible Foods is the owner of all right, title, and interest in and to the '656 Patent. Impossible Foods has the exclusive right to make, use, sell, and offer to sell any product embodying the invention of the '656 Patent or any product made by the method of the '656 Patent throughout the United States, and

to import any product embodying the invention of the ’656 Patent or any product made by the invention of the ’656 Patent into the United States.

94. The ’656 Patent claims and describes an invention comprising a methylotrophic yeast cell comprising a recombinant nucleic acid molecule, wherein the recombinant nucleic acid molecule comprises a first exogenous nucleic acid encoding a methanol expression regulator 1 (Mxr1) transcriptional activator operably linked to at least one methanol-inducible promoter element comprising a sequence to which the Mxr1 transcriptional activator binds, wherein the recombinant nucleic acid molecule comprises a second exogenous nucleic acid encoding a heterologous polypeptide operably linked to at least one methanol-inducible promoter element. The ’656 Patent further claims and describes a method for expressing a heterologous polypeptide in a cell comprising the steps of providing the above-described yeast cell and culturing the cell under conditions for expression of the recombinant nucleic acid molecule, thereby expressing the heterologous polypeptide.

95. On information and belief, Defendant has been and is now infringing at least claims 1 and 16 of the ’656 Patent in the United States by, among other things, directly or through intermediaries, making, using, selling, and/or offering for sale the Infringing Yeast, which are covered by one or more claims of the ’656 Patent, to the injury of Impossible Foods. In particular, the Infringing Yeast

comprise a methylotrophic yeast cell comprising a recombinant nucleic acid molecule, wherein the recombinant nucleic acid molecule comprises a first exogenous nucleic acid encoding a methanol expression regulator 1 (Mxr1) transcriptional activator operably linked to at least one methanol-inducible promoter element comprising a sequence to which the Mxr1 transcriptional activator binds, wherein the recombinant nucleic acid molecule comprises a second exogenous nucleic acid encoding a heterologous polypeptide (bovine myoglobin) operably linked to at least one methanol-inducible promoter element. The Infringing Products are made by expressing a heterologous polypeptide in such a yeast cell and culturing the cell under conditions for expression of the recombinant nucleic acid molecule, thereby expressing the heterologous polypeptide.

96. Defendant is directly infringing, literally and/or under the doctrine of equivalents, the ’656 Patent. Defendant is thus liable for infringement of the ’656 Patent pursuant to 35 U.S.C. § 271(a).

97. Defendant infringes the ’656 Patent because it makes, uses, sells, and/or offers for sale the invention of the ’656 Patent. In particular, Defendant infringes at least claims 1 and 16 of the ’656 Patent by making the Infringing Yeast, HEMAMI, and/or the Infringing Products.

98. On information and belief, Defendant will continue to infringe the ’656 Patent unless enjoined.

99. On information and belief, Defendant contributes to infringement of the ’656 Patent under 35 U.S.C. § 271(c) inasmuch as it provides the Infringing Yeast, HEMAMI, and/or the Infringing Products, which constitute a material part of Impossible Foods’ invention, to another, knowing the same to be especially made or especially adapted for use in infringement of the ’656 Patent.

100. On information and belief, Defendant will continue to contribute to infringement of the ’656 Patent unless enjoined.

101. On information and belief, Defendant actively encourages its business partners to make, use, sell, and/or offer for sale the Infringing Yeast and the Infringing Products. Defendant is aware of Impossible Foods’ proprietary yeast used in heme production and proprietary IMPOSSIBLE BURGER. Moreover, Defendant is aware of the ’656 Patent. Despite such knowledge, Defendant has actively induced its business partners to make, use, sell, and/or offer for sale the Infringing Yeast, HEMAMI and/or the Infringing Products in a way that constitutes infringement. Defendant has encouraged this infringement with a specific intent to cause its business partners and customers to infringe. Defendant’s acts thus constitute active inducement of patent infringement in violation of 35 U.S.C. § 271(b).

102. On information and belief, Defendant will continue to induce infringement of the ’656 Patent unless enjoined.

103. Defendant’s direct infringement, contributory infringement, and inducement of infringement have irreparably harmed Impossible Foods.

104. Pursuant to 35 U.S.C. § 284, Impossible Foods is entitled to damages adequate to compensate for Defendant’s infringement.

105. Defendant’s infringement has been and is willful and, pursuant to 35 U.S.C. § 284, Impossible Foods is entitled to treble damages. Defendant’s willful infringement is based at least on Defendant’s knowledge of Impossible Foods, its manufacturing techniques, its products, and its patents (*see, e.g.*, ¶¶ 32, 34, 44-47, *supra*). Defendant’s conduct is egregious as it has continued offering, selling, making and/or using the Infringing Yeast, HEMAMI, and/or the Infringing Products despite knowledge of the infringement. Defendant has either willfully and wantonly infringed the ’656 Patent or has recklessly avoided knowledge of its own infringement, even when faced with knowledge of Impossible Foods’ own products and patents.

106. This case is “exceptional” within the meaning of 35 U.S.C. § 285, and Impossible Foods is entitled to an award of attorneys’ fees.

COUNT V: INFRINGEMENT OF THE ’761 PATENT

107. Impossible Foods incorporates and re-alleges ¶¶ 1-106 as though fully stated herein.

108. Impossible Foods is the owner of all right, title, and interest in and to the ’761 Patent. Impossible Foods has the exclusive right to make, use, sell, and offer to sell any product embodying the ’761 Patent throughout the United States, and to import any product embodying the ’761 Patent into the United States.

109. The ’761 Patent claims and describes an invention comprising a beef replica product, which comprises a) a muscle replica comprising 0.1%-5% of a heme-containing protein, at least one sugar compound and at least one sulfur compound; and b) a fat tissue replica comprising at least one plant oil and a denatured plant protein, wherein said muscle replica and fat tissue replica are assembled in a manner that approximates the physical organization of meat.

110. On information and belief, Defendant has been and is now infringing at least claim 1 of the ’761 Patent in the United States by, among other things, directly or through intermediaries, making, using, selling, and/or offering for sale the Infringing Products, which are covered by one or more claims of the ’761 Patent, to the injury of Impossible Foods. In particular, the Infringing Products comprise a beef replica product comprising a) a muscle replica comprising 0.1%-5% of a heme-containing protein, at least one sugar compound and at least one

sulfur compound; and b) a fat tissue replica comprising at least one plant oil and a denatured plant protein, wherein said muscle replica and fat tissue replica are assembled in a manner that approximates the physical organization of meat.

111. Defendant is directly infringing, literally and/or under the doctrine of equivalents, the ’761 Patent. Defendant is thus liable for infringement of the ’761 Patent pursuant to 35 U.S.C. § 271(a).

112. Defendant infringes the ’761 Patent because it makes, uses, sells and/or offers for sale the invention of the ’761 Patent. In particular, Defendant infringes at least claim 1 of the ’761 Patent by making, using, selling and/or offering for sale the Infringing Products.

113. On information and belief, Defendant will continue to infringe the ’761 Patent unless enjoined.

114. Defendant contributes to infringement of the ’761 Patent under 35 U.S.C. § 271(c) inasmuch as it provides a component of the Infringing Products, *e.g.*, HEMAMI and/or the Infringing Yeast, which constitutes a material part of Impossible Foods’ invention, to another, knowing the same to be especially made or especially adapted for use in infringement of the ’761 Patent.

115. On information and belief, Defendant will continue to contribute to infringement of the ’761 Patent unless enjoined.

116. Defendant actively encourages its business partners to make, use, sell, and/or offer for sale the Infringing Products. Defendant is aware of Impossible Foods' proprietary IMPOSSIBLE BURGER. Moreover, Defendant is aware of the '761 Patent. Despite such knowledge, Defendant has actively induced its business partners to make, use, sell, and/or offer for sale the Infringing Products in a way that constitutes infringement. Defendant has encouraged this infringement with a specific intent to cause its business partners and customers to infringe. Defendant's acts thus constitute active inducement of patent infringement in violation of 35 U.S.C. § 271(b).

117. On information and belief, Defendant will continue to induce infringement of the '761 Patent unless enjoined.

118. Defendant's direct infringement, contributory infringement, and inducement of infringement have irreparably harmed Impossible Foods.

119. Pursuant to 35 U.S.C. § 284, Impossible Foods is entitled to damages adequate to compensate for Defendant's infringement.

120. Defendant's infringement has been and is willful and, pursuant to 35 U.S.C. § 284, Impossible Foods is entitled to treble damages. Defendant's willful infringement is based at least on Defendant's knowledge of Impossible Foods, its manufacturing techniques, its products, and its patents (*see, e.g.*, ¶¶ 32, 34, 44-47, *supra*). Moreover, Defendant has had actual knowledge of its infringement of the

’761 Patent at least since the filing of Impossible Foods’ original Complaint. Defendant’s conduct is egregious as it has continued offering, selling, making and/or using the Infringing Products despite knowledge of the infringement. Defendant has either willfully and wantonly infringed the ’761 Patent or has recklessly avoided knowledge of its own infringement, even when faced with knowledge of Impossible Foods’ own products and patents.

121. This case is “exceptional” within the meaning of 35 U.S.C. § 285, and Impossible Foods is entitled to an award of attorneys’ fees.

COUNT VI: INFRINGEMENT OF THE ’250 PATENT

122. Impossible Foods incorporates and re-alleges ¶¶ 1-121 as though fully stated herein.

123. Impossible Foods is the owner of all right, title, and interest in and to the ’250 Patent. Impossible Foods has the exclusive right to make, use, sell, and offer to sell any product embodying the ’250 Patent throughout the United States, and to import any product embodying the ’250 Patent into the United States.

124. The ’250 Patent claims and describes an invention comprising a meat replica matrix comprising one or more plant proteins, a sugar selected from a list of sugars, at least one sulfur compound selected from a list of sulfur compounds, and 0.01%-5% (by weight of the meat replica matrix) of a non-animal heme-

containing protein, wherein, upon cooking of the meat replica matrix, at least two volatile compounds are generated that are associated with a beef-like aroma.

125. On information and belief, Defendant has been and is now infringing at least claim 1 of the ’250 Patent in the United States by, among other things, directly or through intermediaries, making, using, selling, and/or offering for sale the Infringing Products, which are covered by one or more claims of the ’250 Patent, to the injury of Impossible Foods. In particular, the Infringing Products comprise a meat replica matrix comprising one or more plant proteins, a sugar selected from the list of sugars in claim 1 of the ’250 Patent, at least one sulfur compound selected from the list of sulfur compounds in claim 1 of the ’250 Patent, and 0.01%-5% (by weight of the meat replica matrix) of a non-animal heme-containing protein, wherein, upon cooking of the meat replica matrix, at least two volatile compounds are generated that are associated with a beef-like aroma.

126. Defendant is directly infringing, literally and/or under the doctrine of equivalents, the ’250 Patent. Defendant is thus liable for infringement of the ’250 Patent pursuant to 35 U.S.C. § 271(a).

127. Defendant infringes the ’250 Patent because it makes, uses, sells and/or offers for sale the invention of the ’250 Patent. In particular, Defendant

infringes at least claim 1 of the ’250 Patent by making, using, selling and/or offering for sale the Infringing Products.

128. On information and belief, Defendant will continue to infringe the ’250 Patent unless enjoined.

129. Defendant contributes to infringement of the ’250 Patent under 35 U.S.C. § 271(c) inasmuch as it provides a component of the Infringing Products, *e.g.*, HEMAMI and/or the Infringing Yeast, which constitutes a material part of Impossible Foods’ invention, to another, knowing the same to be especially made or especially adapted for use in infringement of the ’250 Patent.

130. On information and belief, Defendant will continue to contribute to infringement of the ’250 Patent unless enjoined.

131. Defendant actively encourages its business partners to make, use, sell, and/or offer for sale the Infringing Products. Defendant is aware of Impossible Foods’ proprietary IMPOSSIBLE BURGER. Moreover, Defendant is aware of the ’250 Patent. Despite such knowledge, Defendant has actively induced its business partners to make, use, sell, and/or offer for sale the Infringing Products in a way that constitutes infringement. Defendant has encouraged this infringement with a specific intent to cause its business partners and customers to infringe. Defendant’s acts thus constitute active inducement of patent infringement in violation of 35 U.S.C. § 271(b).

132. On information and belief, Defendant will continue to induce infringement of the ’250 Patent unless enjoined.

133. Defendant’s direct infringement, contributory infringement, and inducement of infringement have irreparably harmed Impossible Foods.

134. Pursuant to 35 U.S.C. § 284, Impossible Foods is entitled to damages adequate to compensate for Defendant’s infringement.

135. Defendant’s infringement has been and is willful and, pursuant to 35 U.S.C. § 284, Impossible Foods is entitled to treble damages. Defendant’s willful infringement is based at least on Defendant’s knowledge of Impossible Foods, its manufacturing techniques, its products, and its patents (*see, e.g.*, ¶¶ 32, 34, 44-47, *supra*). Moreover, Defendant has had actual knowledge of its infringement of the ’250 Patent at least since the filing of Impossible Foods’ First Amended Complaint. Defendant’s conduct is egregious as it has continued offering, selling, making and/or using the Infringing Products despite knowledge of the infringement. Defendant has either willfully and wantonly infringed the ’250 Patent or has recklessly avoided knowledge of its own infringement, even when faced with knowledge of Impossible Foods’ own products and patents.

136. This case is “exceptional” within the meaning of 35 U.S.C. § 285, and Impossible Foods is entitled to an award of attorneys’ fees.

COUNT VII: INFRINGEMENT OF THE ’241 PATENT

137. Impossible Foods incorporates and re-alleges ¶¶ 1-136 as though fully stated herein.

138. Impossible Foods is the owner of all right, title, and interest in and to the ’241 Patent. Impossible Foods has the exclusive right to make, use, sell, and offer to sell any product embodying the ’241 Patent throughout the United States, and to import any product embodying the ’241 Patent into the United States.

139. The ’241 Patent claims and describes an invention comprising a meat-like food product produced by a method comprising: providing one or more plant proteins, and combining, with the one or more plant proteins, a heme-containing protein, one or more of a list of sugars, and one or more of a list of sulfur-containing compounds; wherein the meat-like food product is free of animal heme-containing protein, wherein cooking the meat-like-food-product results in the production of at least two volatile compounds which have a meat-associated aroma, and wherein the meat-like food product is in a form selected from the group consisting of a hotdog, a burger, ground meat, a sausage, a steak, a filet, a roast, a meatball, a meatloaf, or bacon.

140. On information and belief, Defendant has been and is now infringing at least claim 22 of the ’241 Patent in the United States by, among other things, directly or through intermediaries, making, using, selling, and/or offering for sale

the Infringing Products, which are covered by one or more claims of the ’241 Patent, to the injury of Impossible Foods. In particular, the Infringing Products comprise a meat-like product food produced by a method comprising: providing one or more plant proteins, and combining, with the one or more plant proteins, a heme-containing protein, one or more of the list of sugars in claim 22 of the ’241 Patent, and one or more of the list of sulfur-containing compounds in claim 22 of the ’241 Patent; wherein the meat-like food product is free of animal heme-containing protein, wherein cooking the meat-like-food-product results in the production of at least two volatile compounds which have a meat-associated aroma, and wherein the meat-like food product is in a form selected from the group consisting of a hotdog, a burger, ground meat, a sausage, a steak, a filet, a roast, a meatball, a meatloaf, or bacon.

141. Defendant is directly infringing, literally and/or under the doctrine of equivalents, the ’241 Patent. Defendant is thus liable for infringement of the ’241 Patent pursuant to 35 U.S.C. § 271(a).

142. Defendant infringes the ’241 Patent because it makes, uses, sells and/or offers for sale the invention of the ’241 Patent. In particular, Defendant infringes at least claim 22 of the ’241 Patent by making, using, selling and/or offering for sale the Infringing Products.

143. On information and belief, Defendant will continue to infringe the ’241 Patent unless enjoined.

144. Defendant contributes to infringement of the ’241 Patent under 35 U.S.C. § 271(c) inasmuch as it provides a component of the Infringing Products, *e.g.*, HEMAMI and/or the Infringing Yeast, which constitutes a material part of Impossible Foods’ invention, to another, knowing the same to be especially made or especially adapted for use in infringement of the ’241 Patent.

145. On information and belief, Defendant will continue to contribute to infringement of the ’241 Patent unless enjoined.

146. Defendant actively encourages its business partners to make, use, sell, and/or offer for sale the Infringing Products. Defendant is aware of Impossible Foods’ proprietary IMPOSSIBLE BURGER. Moreover, Defendant is aware of the ’241 Patent. Despite such knowledge, Defendant has actively induced its business partners to make, use, sell, and/or offer for sale the Infringing Products in a way that constitutes infringement. Defendant has encouraged this infringement with a specific intent to cause its business partners and customers to infringe. Defendant’s acts thus constitute active inducement of patent infringement in violation of 35 U.S.C. § 271(b).

147. On information and belief, Defendant will continue to induce infringement of the ’241 Patent unless enjoined.

148. Defendant's direct infringement, contributory infringement, and inducement of infringement have irreparably harmed Impossible Foods.

149. Pursuant to 35 U.S.C. § 284, Impossible Foods is entitled to damages adequate to compensate for Defendant's infringement

150. Defendant's infringement has been and is willful and, pursuant to 35 U.S.C. § 284, Impossible Foods is entitled to treble damages. Defendant's willful infringement is based at least on Defendant's knowledge of Impossible Foods, its manufacturing techniques, its products, and its patents (*see, e.g.*, ¶¶ 32, 34, 44-47, *supra*). Moreover, Defendant has had actual knowledge of its infringement of the '241 Patent at least since the filing of Impossible Foods' First Amended Complaint. Defendant's conduct is egregious as it has continued offering, selling, making and/or using the Infringing Products despite knowledge of the infringement. Defendant has either willfully and wantonly infringed the '241 Patent or has recklessly avoided knowledge of its own infringement, even when faced with knowledge of Impossible Foods' own products and patents.

151. This case is "exceptional" within the meaning of 35 U.S.C. § 285, and Impossible Foods is entitled to an award of attorneys' fees.

DEMAND FOR A JURY TRIAL

Impossible Foods demands a jury trial on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Impossible Foods demands judgment as follows:

a. Judgment that Defendant has infringed and is infringing the patents-in-suit;

b. That Impossible Foods be granted injunctive relief against Defendant and its officers, employees, agents, servants, attorneys, instrumentalities, and/or those in privity with them, to prevent the recurrence of the infringing activities complained of herein, including ceasing manufacture, use, sale, offering for sale, and importation of HEMAMI, the Infringing Yeast and the Infringing Products, ceasing contribution to and/or inducement of others to do the same, and for all further proper injunctive relief pursuant to 35 U.S.C. § 283;

c. Judgment that Defendant account for and pay to Impossible Foods all damages and costs incurred by Impossible Foods, caused by Defendant's infringing activities complained of herein;

d. Judgment that Defendant has willfully infringed the patents-in-suit and an increase in the damages award to Impossible Foods up to three times the amount assessed, pursuant to 35 U.S.C. § 284;

e. That Impossible Foods be granted pre- and post-judgment interest on the damages;

f. That this Court declare this case exceptional and award Impossible Foods reasonable attorneys' fees and costs in accordance with 35 U.S.C. § 285; and

g. That Impossible Foods be granted such other and further relief as the Court may deem just and proper under the circumstances.

WILSON SONSINI GOODRICH & ROSATI, P.C.

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Dated: September 7, 2022