IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

VITAWORKS IP, LLC and VITAWORKS, LLC,	)	
Plaintiffs,	)	
v.	)	C.A. No. _____
GLANBIA NUTRITIONALS (NA), INC.,	)	**JURY TRIAL DEMANDED**
Defendant.	)	

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiffs, Vitaworks IP, LLC ("Vitaworks IP") and Vitaworks, LLC ("Vitaworks LLC") (collectively, "Vitaworks"), by and through their undersigned attorneys, for their Complaint against Defendant Glanbia Nutritionals (NA), Inc. ("Glanbia"), allege as follows:

NATURE OF THE ACTION

1. This is an action for infringement under 35 U.S.C. § 271(g) of recently re-issued U.S. Patent No. RE48,238 (the "'238 Patent"); No. RE48,333 (the "'333 Patent"); No. RE48,354 (the "'354 Patent"); No. RE48,369 (the "'369 Patent"); and No. RE48,392 (the "'392 Patent"), as well as of U.S. Patent No. 9,598,357 (the "'357 Patent"), and No. 10,040,755 (the "'755 Patent") (collectively, the "Patents-in-Suit"). Section 271(g) provides that "[w]hoever without authority imports into the United States or offers to sell, sells, or uses within the United States a product which is made by a process patented in the United States shall be liable as an infringer, if the importation, offer to sell, sale, or use of the product occurs during the term of such process patent." As detailed below, Glanbia imports, offers to sell, and sells a product made outside the United States by processes claimed by the Patents-in-Suit.

2. The Patents-in-Suit claim improved methods for the manufacture of taurine, an amino sulfonic acid that is required by humans and certain animals. Taurine is used as an

additive to a number of consumer products, including infant formula, pet food and energy drinks. The traditional processes used for manufacturing taurine suffer from suboptimal yields and generate a large amount of waste material. The founder of Vitaworks, Dr. Songzhou Hu, invented more efficient taurine manufacturing processes that increase yield and reduce waste.

3. Dr. Hu developed significant improvements to the traditional taurine manufacturing process (the "Recycling Improvements"), and received several patents on those improvements, including the Patents-in-Suit. The Recycling Improvements materially increase the yield of the traditional process and reduce waste, particularly liquid waste. Seeking to make further improvements to taurine production, Dr. Hu then invented new, even more efficient and environmentally friendly processes (the "Sulfate-Free Processes"), which further eliminate the production of waste products, including solid sodium sulfate. This case is directed to Glanbia's importation, offers for sale and sales of taurine made through use of the Recycling Improvements.

4. Vitaworks brings this action to hold Glanbia accountable for its importation and sale of taurine manufactured using the Recycling Improvements by two of the world's largest taurine manufacturers, Jiangyin Huachang Food Additive Co., Ltd. ("JHFA") and Fuchi Pharmaceutical Co. Ltd. d/b/a Hubei Grand Life Science and Technology Co., Ltd ("Hubei Grand"). JHFA and Hubei Grand began using the Recycling Improvements after they learned of them from Dr. Hu in 2014, and continue to use these processes to this day without permission.[1]

THE PARTIES

5. Plaintiff Vitaworks IP is a limited liability company organized and existing under the laws of the State of New Jersey, having its place of business at 195 Black Horse Lane,

[1] Vitaworks, in a separately pending action before this Court, alleges that Glanbia is infringing, under § 271(g), patents claiming the Sulfate-Free Processes based on Glanbia's importation, offer for sale and sale of taurine manufactured by a different taurine manufacturer. C.A. No. 19-2259 (CFC).

North Brunswick, New Jersey. Vitaworks IP was founded in 2015 by Dr. Hu, who received a Ph.D in chemistry from Marquette University and post-doctoral training at Princeton University. Dr. Hu is the sole inventor on over 25 U.S. patents claiming innovative chemical methods, including the Patents-in-Suit. Dr. Hu assigned the Patents-in-Suit to Vitaworks IP.

6. Plaintiff Vitaworks LLC is a limited liability company organized and existing under the laws of the State of Delaware, having its place of business at 195 Black Horse Lane, North Brunswick, New Jersey. Vitaworks LLC develops leading technologies for green chemical syntheses of key food ingredients and biorenewable engineering materials. Vitaworks LLC exclusively licenses the Patents-in-Suit from Vitaworks IP.

7. Defendant Glanbia is a Delaware corporation having its principal place of business at 2840 Loker Avenue East, Carlsbad, California. Glanbia buys and imports taurine from Chinese manufacturers (including JHFA and Hubei Grand) and resells it in the United States. In 2020 alone, Glanbia imported into the United States over 2,191 metric tons of taurine produced by JHFA and Hubei Grand.

JURISDICTION AND VENUE

8. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

9. This Court has personal jurisdiction over Glanbia because Glanbia is incorporated in the state of Delaware.

10. Venue is proper in this judicial district under 28 U.S.C. § 1400(b), because Glanbia, as a Delaware corporation, is deemed to reside in this district.

BACKGROUND ON TAURINE

11. Taurine is a naturally-occurring amino sulfonic acid that is found in the tissues of many animals. Mammals naturally produce taurine and they can also ingest it from meat

and dairy products. Taurine was originally isolated in the 19th century from the bile of oxen; hence the derivation of its name from the Latin word for bull.

12. Taurine is believed to play an essential role in neonatal development, brain development and heart function, and, therefore, has important commercial uses as a dietary supplement and as an additive to pet food and infant formula. More recently, taurine has found an important commercial use as an additive to energy drinks. Several leading energy drink companies prominently feature the word "taurine" on their products' containers. Taurine is, and has been advertised as, an essential, non-trivial component of such products.

13. Plants do not produce taurine and it cannot be efficiently extracted from animal tissues or byproducts. Commercial taurine must therefore be synthesized industrially. In 2018, about 60,000 metric tons of taurine were manufactured and sold worldwide.

14. For at least the last 10 years, the vast majority of commercial taurine has been manufactured in China. Currently, the major Chinese manufacturers are JHFA; Hubei Grand; Qianjiang Yongan Pharmaceutical Co., Ltd. ("QYP"); and Hebi City Hexin Chem Ind. Co., Ltd. Most of the taurine consumed in the United States is made by these four companies.

15. The manufacturers typically sell taurine to distributors, which in turn sell taurine, alone or in formulations, to manufacturers of consumer products, such as energy drinks.

16. Commercial manufacturing of taurine has traditionally been accomplished through two types of production processes. One process uses monoethanolamine as the starting material; the other uses ethylene oxide. Of the two, the ethylene oxide process (the "EO Process") is more efficient and, accordingly, accounted for all but a small amount of world taurine production before Dr. Hu invented his improved processes. Although more efficient than the monoethanolamine processes, the traditional EO Process has two major drawbacks.

17. The first drawback of the EO Process is that not all the starting material (ethylene oxide) or an intermediate product (sodium isethionate) is converted to taurine. The maximum attainable yield of the EO Process falls between 75–80% because 20–25% of the starting material is converted into soluble, potentially harmful waste, consisting of intermediates and byproducts. Historically, this waste was discharged into the Yangtze River, the largest river in China. But increasingly strict environmental regulation in China has made disposal of the waste from the EO Process much more difficult and expensive.

18. The second drawback of the EO Process is that the final step requires sodium salts of taurine to be neutralized with acid, typically sulfuric acid. This reaction generates sodium sulfate as a byproduct in substantial quantities, typically in an amount that approaches the quantity of taurine that is produced. The separation of sodium sulfate from taurine is labor-intensive and must be performed at very high and energy-consumptive temperatures. Although sodium sulfate can be used as a starting material for the production of sodium silicate, a compound with several uses, the process generates sulfur dioxide as a byproduct, which in turn generates acid rain. Therefore, as a practical matter, the sodium sulfate waste generated by the EO Process has no commercial value and must be discarded.

19. Several publications authored by Chinese chemists and engineers note the drawbacks of the EO Process. For example, Chinese Patent Application No. 104628609A, filed by Shandong Fangming Pharmaceutical Group, and No. 105732440A, filed by JHFA, describe the costs associated with the EO Process and the adverse environmental impact of waste disposal. QYP's U.S. Patent Application No. 20140121405A1 discusses the low yield of taurine and high waste produced with the EO Process.

20. In summary, the traditional processes for taurine production have several disadvantages, including suboptimal yield, generation of large amounts of waste materials, high cost of waste disposal, and negative environmental effects. Although the taurine industry has searched for improvements to the traditional processes, these efforts have failed to achieve close to 100% efficiency or to eliminate the generation of waste, including sulfate salts. Dr. Hu was the first person to solve these long-standing problems and to patent solutions to them.

THE PATENTS-IN-SUIT

21. Dr. Hu has been engaged since 1998 in the study of the processes by which taurine is synthesized, with the goal of improving existing manufacturing methods. Since 2012, Dr. Hu has applied for and obtained numerous patents relating to taurine manufacture, including the Patents-in-Suit. Vitaworks IP is the owner of all title, right and interest in and to the Patents-in-Suit, and Vitaworks LLC is its exclusive licensee.

22. Through his research, Dr. Hu came to understand that the key impediment to improving taurine yields through the EO Process is the presence of certain byproducts (principally sodium ditaurinate and disodium tritaurinate) in the aqueous solution from which taurine is purified (the "mother liquor"). Although the EO Process includes recycling the mother liquor back into the isolation and purification steps of the production process, each time the mother liquor is recycled, the byproducts become increasingly concentrated. Eventually these byproducts become so concentrated that their presence in the reaction medium impedes further taurine production and the mother liquor must be discarded as waste.

23. During 2013, Dr. Hu undertook research to determine whether he could alter the EO Process so that these byproducts could be converted into taurine. In the course of attempting to synthesize tritaurine starting material for this research, Dr. Hu unexpectedly discovered that eliminating acid from a step in the synthesis made the resulting product, sodium

tritaurinate, a better candidate for conversion to taurine. That led him to posit that deprotonating ditaurinate and tritaurinate further through the addition of a base to the mother liquor would make it possible to fully recycle the mother liquor. When Dr. Hu tested his hypothesis, he found that treatment of the mother liquor containing di- and tritaurinate with a strong base (such as sodium hydroxide) increased the yield of taurine production to over 90% and eliminated the need to dispose of any of the mother liquor. Implementing the Recycling Improvements would mean the elimination of 1 billion liters of liquid waste per 50,000 metric tons of taurine produced.

24. The Recycling Improvements solve the first drawback of the traditional EO Process: the presence of byproducts in the mother liquor that cannot be recycled, which placed a ceiling of 75–80% on yield and caused the generation of large amounts of liquid waste. Instead, under the Recycling Improvements, the mother liquor does not need to be discarded because it is treated with a strong base (such as sodium hydroxide) and recycled to produce more taurine, increasing overall yield to over 90%. The Recycling Improvements also permit the EO Process to be performed at lower temperatures and lower pressures, which reduces energy consumption.

25. In April 2014, Dr. Hu filed a patent application for this groundbreaking modification of the EO Process. The application ultimately issued as U.S. Patent No. 9,428,450 (the "'450 Patent"), which later reissued as three of the Patents-in-Suit—the '238 Patent, the '333 Patent, and the '354 Patent. The '450 Patent was followed by several others claiming a cyclic process for taurine production, including the remaining Patents-in-Suit.

26. The '238 Patent (attached as Exhibit A) was filed on April 8, 2020, and duly and lawfully reissued on October 6, 2020, from the '450 Patent (which was filed on April 18, 2014 and issued on August 30, 2016). The '238 Patent names Songzhou Hu as the sole inventor and

Vitaworks IP as assignee, and is entitled "Process for Producing Taurine From Alkali Taurinates." The '238 Patent is scheduled to expire on April 18, 2034.

27. The '333 Patent (attached as Exhibit B) was filed on April 21, 2020, and duly and lawfully reissued on December 1, 2020, from the '450 Patent. The '333 Patent names Songzhou Hu as the sole inventor and Vitaworks IP as assignee, and is entitled "Process for Producing Taurine From Alkali Taurinates." The '333 Patent is scheduled to expire on April 18, 2034.

28. The '354 Patent (attached as Exhibit C) was filed on April 21, 2020, and duly and lawfully reissued on December 15, 2020, from the '450 Patent. The '354 Patent names Songzhou Hu as the sole inventor and Vitaworks IP as assignee, and is entitled "Process for Producing Taurine From Alkali Taurinates." The '354 Patent is scheduled to expire on April 18, 2034.

29. The '369 Patent (attached as Exhibit D) was filed on April 7, 2020, and duly and lawfully reissued on December 29, 2020, from U.S. Patent No. 9,573,890 (the "'890 Patent") (which was filed on August 4, 2016, and issued on February 21, 2017). The '369 Patent names Songzhou Hu as the sole inventor and Vitaworks IP as assignee, and is entitled "Process for Producing Taurine." The '369 Patent is scheduled to expire on April 18, 2034.

30. The '392 Patent (attached as Exhibit E) was filed on April 30, 2020, and duly and lawfully reissued on January 12, 2021, from U.S. Patent No. 9,428,451 (the "'451 Patent") (which was filed on June 12, 2014, and issued on August 30, 2016). The '392 Patent names Songzhou Hu as the sole inventor and Vitaworks IP as assignee, and is entitled "Cyclic Process For The Production Of Taurine From Alkali Isethionate." The '392 Patent is scheduled to expire on April 18, 2034.

31. The ’357 Patent (attached as Exhibit F) was filed on February 29, 2016, and duly and lawfully issued on March 21, 2017. The ’357 Patent names Songzhou Hu as the sole inventor and Vitaworks IP as assignee, and is entitled “Process for Producing Taurine from Alkali Taurinates.” The ’357 Patent is scheduled to expire on August 20, 2032.

32. The ’755 Patent (attached as Exhibit G) was filed on January 12, 2018, and duly and lawfully issued on August 7, 2018. The ’755 Patent names Songzhou Hu as the sole inventor and Vitaworks IP as assignee, and is entitled “Process for Producing Alkali Taurinate.” The ’755 Patent is scheduled to expire on August 20, 2032.

33. In September 2018, Hubei Grand filed a petition for Inter Partes Review (IPR) seeking to invalidate three of Dr. Hu’s patents, including the ’450 Patent. Two of the patents were canceled by Vitaworks, but these patents were recently reissued as the ’369 Patent and the ’392 Patent (both of which are Patents-in-Suit). The PTO found the ’450 Patent invalid for obviousness in the IPR proceeding, but the decision was based upon prior art references supplied by the petitioner that were later found to be inoperable by the PTO during the prosecution of the reissue applications for the ’450 Patent. As noted above, the ’450 Patent was recently reissued as the ’238 Patent, the ’333 Patent, and the ’354 Patent, three of the Patents-in-Suit. In reissuing the ’450 Patent over the prior art that had been submitted during the IPR, including the inoperable references, the PTO found the result of the claimed invention to be “surprising and unexpected”. The PTO found a 14-page protest in opposition to the reissuance of the ’450 Patent to be “ unpersuasive”. *See, e.g.*, Exhibit H, Notice of Allowance for Patent Application No. SN 16/854,406 (’333 Patent).

GLANBIA'S INFRINGEMENT OF DR. HU'S PATENTED PROCESSES

34. Glanbia imports taurine into the United States made by Chinese taurine manufacturers, including JHFA and Hubei Grand, using the processes claimed in the Patents-in-Suit. Glanbia then sells that taurine in the United States.

JHFA's Practice of Dr. Hu's Recycling Improvements

35. Prior to 2014, JHFA used the traditional EO Process to manufacture taurine.

36. In the summer of 2014, after he had filed a patent application on his Recycling Improvements, Dr. Hu met with representatives of JHFA in China and described to them the Recycling Improvements and their benefits. In November 2014, JHFA's chairwoman (Ms. Huaxing Zhang), Chief Engineer (Dr. Yugao Zhang), and its Vice President (Mr. Jianxiang Hua) traveled to Princeton, New Jersey to meet with Dr. Hu to discuss the Recycling Improvements. These JHFA representatives expressed serious interest in Dr. Hu's processes and conveyed their willingness to confer exclusive rights upon Vitaworks to market JHFA's taurine in the U.S. once a patent on the Recycling Improvements issued.

37. Instead, JHFA copied the Recycling Improvements without permission from Vitaworks. On March 21, 2016, JHFA filed Chinese Patent Application No. 105732440A, entitled "Method of Fully Recycling Mother Liquid to Produce Taurine." The named inventors include JHFA's chairwoman, Ms. Zhang, and JHFA's Chief Engineer, Dr. Zhang, two of the JHFA personnel to whom Dr. Hu had disclosed his inventions. JHFA's patent application discloses a process for recycling the mother liquor to produce taurine, citing as benefits of the process the avoidance of discharge of the mother liquor and an increase in the overall yield of taurine to greater than 90%. This application has not issued as a patent. The Chinese patent examiner has twice rejected it because of the prior publication, on October 22, 2015, of one of Dr. Hu's patent applications (US 2015/0299114A1, later issued as the '451 Patent).

38. In August 2016, after Vitaworks' '450 Patent had been allowed, Dr. Hu again visited JHFA. At that meeting, JHFA's chairwoman, Ms. Zhang, admitted that JHFA was using the Recycling Improvements and that, as a result, its taurine yield had increased to around 93%. JHFA expressed interest in licensing Vitaworks' Recycling Improvements patents if QYP (JHFA's largest competitor) also agreed to take a license. QYP subsequently refused to take a license, and JHFA did not take a license from Vitaworks.

39. In 2018, JHFA commissioned the Beijing Yingke Law Firm to prepare a report about JHFA's taurine production process ("Yingke Report"). The report, issued on February 5, 2018, states that JHFA's taurine manufacturing process "fully recycles the mother liquor." In March 2018, JHFA prepared a Feasibility Analysis Report for the Chinese authorities for a new 30,000 metric ton taurine manufacturing facility ("Feasibility Analysis Report"). This report discloses a process, upon information and belief JHFA's then-existing and current process, for recycling mother liquor using a large amount of sodium hydroxide (a strong base). The traditional EO process, which uses sodium hydroxide only as a catalyst, does not require the use of the large amount of sodium hydroxide that is disclosed in the Feasibility Analysis Report, but this amount *is* required by Recycling Improvements claimed by the Patents-in-Suit.

40. Based on the information available to Vitaworks, the taurine manufacturing process practiced by JHFA infringes all claims of the '238 Patent; at least Claims 8, 10–14 of the '333 Patent; at least Claims 8 and 10–14 of the '354 Patent; at least Claims 11 and 13–18 of the '369 Patent; at least Claims 9–13 and 15 of the '392 Patent; at least Claims 1–4 and 7–9 of the '357 Patent; and at least Claims 1–6 and 8–9 of the '755 Patent. The Yingke Report discloses that JHFA continuously recycles its mother liquor. No commercially viable process, other than Dr. Hu's inventions, enables recycling of the mother liquor in this manner, so JHFA is making taurine

by practicing either the Recycling Improvements or the Sulfate-Free Processes. JHFA's documents do not disclose elimination of sodium sulfate waste and, indeed, the Feasibility Analysis Report shows that JHFA's process generates sodium sulfate that is discarded. JHFA, therefore, must be practicing the Recycling Improvements.

41. Moreover, as disclosed in the Feasibility Analysis Report, JHFA recycles the mother liquor (containing sodium ditaurinate and sodium tritaurinate) by adding sodium hydroxide to it in amounts at least equal to the molar amount of total taurinates. The addition of sodium hydroxide converts the sodium ditaurinate and sodium tritaurinate in the mother liquor to disodium ditaurinate and trisodium tritaurinate. Thereafter, JHFA adds excess ammonia to that solution and subjects the solution to ammonolysis. JHFA then removes the excess ammonia and neutralizes the remaining solution with sulfuric acid to form a crystalline suspension of taurine. Once the taurine is recovered through solid-liquid separation, JHFA repeats these steps again to recycle the mother liquor further by subjecting it to additional ammonolysis. Through this cyclic process, JHFA produces taurine with an overall molar yield of at least 85%, on the basis of the molar amount of sodium isethionate made from the starting material used. Therefore, the method for making taurine used by JHFA incorporates all steps recited in the above-listed claims of the Patents-in-Suit.

Hubei Grand's Practice of Dr. Hu's Recycling Improvements

42. Prior to 2014, Hubei Grand used the EO Process to manufacture taurine.

43. In the summer of 2014, Dr. Hu met with the Chairman (Mr. Bangguo Zhang), the Chief Scientist (Dr. Nianjin Liu) and other representatives of Hubei Grand in China. Dr. Hu gave them a copy of the specification and drawings from the patent application he had filed on the Recycling Improvements in April 2014, and explained to them the process he had invented

and its benefits. Dr. Hu offered to license the invention to Hubei Grand. Hubei Grand indicated that it would be willing to do so if a patent ultimately issued.

44. Soon thereafter, Hubei Grand started using Dr. Hu's Recycling Improvements without permission from Vitaworks. A Bulletin of the Ministry of Ecology and Environment of China, published on January 27, 2015 ("2015 Bulletin"), reported that Hubei Grand had eliminated 3,000 metric tons per year of mother liquor from its taurine production process through "technological innovation" that caused "the mother liquor of taurine production [to be] fully recycled and reused." The implementation of this "technological innovation" has been inspected and passed initial environmental protection review by the Environmental Protection Bureau of Yangxin County, where Hubei Grand is located.

45. In May 2016, while texting with Dr. Nianjin Liu, Hubei Grand's Chief Scientist at the time, Dr. Hu explained that he had "only carried out research work on two aspects: recycling back to production process [and] direct ammonolysis." In response, Dr. Liu stated that "these two aspects of your work solved many difficult problems in taurine production. It is incredible!" This exchange further indicates that Hubei Grand is using Dr. Hu's patented processes.

46. In June 2016, soon after Vitaworks' '450 Patent was allowed, Dr. Hu resumed his discussions with Hubei Grand. At a meeting in China in August 2016, Hubei Grand agreed to make Vitaworks its exclusive North American marketing agent in exchange for a license to the '450 Patent. Vitaworks subsequently prepared a license and sent it to Hubei Grand, but Hubei Grand declined to sign it. Instead, Hubei Grand continued to practice the Recycling Improvements without a license from Vitaworks.

47. Based on the information available to Vitaworks, the taurine manufacturing process Hubei Grand practices to make taurine infringes all claims of the ’238 Patent; at least Claims 8 and 10–14 of the ’333 Patent; at least Claims 8 and 10–14 of the ’354 Patent; at least Claims 11 and 13–17 of the ’369 Patent; at least Claims 9–12 and 15 of the ’392 Patent; at least Claims 1–4 and 7–9 of the ’357 Patent; and at least Claims 1–5 and 8–9 of the ’755 Patent. Although Hubei Grand has not fully disclosed the details of its current taurine manufacturing process, the 2015 Bulletin discloses that Hubei Grand implemented a new process after meeting with Dr. Hu, and that it achieved significant benefits by fully recycling the mother liquor. Because Hubei Grand continues to generate sodium sulfate waste (which it disposes of through a third party), the only way Hubei Grand can recycle its mother liquor to produce taurine is by practicing Recycling Improvements claimed by the Patents-in-Suit.

48. Moreover, Hubei Grand continuously recycles the mother liquor (a solution comprising a mixture of sodium ditaurinate and sodium tritaurinate), thereby necessarily increasing the overall yield of taurine to at least 85%, from the maximum 75% yield allowed by the traditional processes, based on the amount or molar mass of the sodium isethionate made from the starting materials used. Because the 2015 Bulletin confirms that Hubei Grand practices a continuous, cyclic process, the method for making taurine used by Hubei Grand must comprise a step of converting sodium ditaurinate and sodium tritaurinate in the mother liquor to disodium ditaurinate and trisodium tritaurinate by adding at least an equal molar amount of sodium hydroxide. Otherwise, as the PTO determined, “the yield of taurine is **depressed** well below 75%”. Exhibit H, Notice of Allowance for Patent Application No. SN 16/854,406 (’333 Patent), at 6 (emphasis in original) (stating also that “the yield here claimed cannot be attained, unless the molar amount of alkali hydroxide is at least equal to the molar amount of total taurinates comprised

of alkali ditaurinate, as well as alkali tritaurinate. . . ."). Hubei Grand, therefore, practices all steps recited in the above-listed claims of the Patents-in-Suit.

GLANBIA'S IMPORT AND SALE OF INFRINGING TAURINE

49. Glanbia is the leading taurine importer and distributor in the United States. Over the past few years, Glanbia has imported, on average, 6,000 metric tons of taurine annually. A substantial amount of the taurine imported by Glanbia is manufactured by JHFA and Hubei Grand. Since 2017, after Hubei Grand and JHFA began using the Recycling Improvements to produce taurine, Glanbia has imported over 10,000 metric tons of taurine from these companies.

50. On August 31, 2016, Vitaworks sued Glanbia and QYP in New Jersey for infringement of the '450 Patent and the '451 Patent, and later amended the complaint to include infringement of the '890 Patent. The New Jersey case was stayed upon joint application of the parties, including Glanbia, pending the outcome of the IPR proceedings described in paragraph 33 of this Complaint. After the IPR proceedings were terminated and after the '450 Patent, '451 Patent and '890 Patent were reissued as the '354 Patent, the '333 Patent, the '238 Patent, the '369 Patent, and the '392 Patent (the "Reissue Patents") (each of which is a Patent-in-Suit), Vitaworks voluntarily dismissed the New Jersey action without prejudice on February 8, 2021.

51. Through the New Jersey action, Glanbia received notice of the Recycling Improvement processes. During the pendency of the New Jersey action, Glanbia closely followed the progress of the IPR proceedings and, later, the prosecution, allowance and issuance of the Reissue Patents. For example, in a submission to the New Jersey District Court on July 30, 2020, Glanbia described in detail two Office Actions that the PTO had issued during its examination of the reissue applications. *Vitaworks LLC v. Glanbia Nutritionals (NA), Inc. & Qianjiang Yongan Pharmaceutical Co. Ltd.,* Civ. A. No: 2:16-cv-5321, ECF No. 78 (attaching copies of the Office Actions). Subsequently, on September 2, 2020, Vitaworks gave Glanbia's counsel notice that two

of the reissue patents from the '450 Patent had been allowed by the PTO and were expected to issue "in a few weeks". *Id*., ECF No. 81. The two reissue patents referenced in the September 2, 2020 letter are the '238 and '333 Patents. Given its close tracking of Vitaworks' reissue applications, Glanbia was likely aware of the issuance of the remaining reissue patents—the '354 Patent, the '369 Patent, and the '392 Patent—before the filing of this complaint. Nevertheless, to avoid any doubt, Vitaworks provided notice to Glanbia of its infringement of all five of the Reissue Patents on February 19, 2021.

52. On January 30, 2019, Vitaworks initiated an ITC proceeding against Glanbia and other entities based on their importation of infringing taurine made using the Recycling Improvements and Sulfate-Free Processes. Although that proceeding was later discontinued, Glanbia received notice through its initiation that Hubei Grand and JHFA practice at least the Recycling Improvement processes of the '755 Patent and the '890 Patent, which reissued as the '369 Patent.

53. Vitaworks provided Glanbia notice that its importation of taurine from JHFA and Hubei Grand also infringes the '357 Patent in a letter dated December 11, 2019.

54. Despite knowledge of its infringement, Glanbia continues to import taurine from JHFA and Hubei Grand. For example, a bill of lading shows that on January 27, 2021, Glanbia imported 47,304 kilograms of taurine from JHFA. Exhibit I, 1/27/21 Bill of Lading. Another bill of lading shows that on January 28, 2021, Glanbia imported 31,338 kilograms of taurine from Hubei Grand. Exhibit J, 1/28/21 Bill of Lading.

55. Glanbia supplies JHFA- and Hubei Grand-sourced taurine to manufacturers of consumer products. Glanbia advertises on its website that it creates custom nutrient pre-mixes and other products, containing vitamins, minerals and amino acids, for use in nutritional

supplements and beverages with health and performance-enhancing properties. Glanbia also sells taurine pre-mix to energy drink manufacturers such as Monster Beverage.

56. Glanbia has infringed Vitaworks' patents through its activities of importation, distribution and sale, and has committed these acts willfully and intentionally after it was notified of its infringement.

COUNT I: INFRINGEMENT OF THE '238 PATENT

57. Vitaworks incorporates by reference paragraphs 1–56 as if fully set forth herein.

58. Glanbia has infringed all claims of the '238 Patent in violation of 35 U.S.C. § 271(g), by importing into the United States, offering for sale, and selling taurine made by processes claimed in the '238 Patent.

59. Glanbia has been on notice of the infringement alleged in this Count since on or around the issuance of the '238 Patent on October 6, 2020.

60. Vitaworks has been damaged by the infringement alleged in this Count.

COUNT II: INFRINGEMENT OF THE '333 PATENT

61. Vitaworks incorporates by reference paragraphs 1–56 as if fully set forth herein.

62. Glanbia has infringed at least Claims 8 and 10–14 of the '333 Patent in violation of 35 U.S.C. § 271(g), by importing into the United States, offering for sale, and selling taurine made by processes claimed in the '333 Patent.

63. Glanbia has been on notice of the infringement alleged in this Count since on or around the issuance of the '333 Patent on December 1, 2020.

64. Vitaworks has been damaged by the infringement alleged in this Count.

COUNT III: INFRINGEMENT OF THE '354 PATENT

65. Vitaworks incorporates by reference paragraphs 1–56 as if fully set forth herein.

66. Glanbia has infringed at least Claims 8 and 10–14 of the '354 Patent in violation of 35 U.S.C. § 271(g), by importing into the United States, offering for sale, and selling taurine made by processes claimed in the '354 Patent.

67. Glanbia has been on notice of the infringement alleged in this Count since on or around the issuance of the '354 Patent on December 15, 2020.

68. Vitaworks has been damaged by the infringement alleged in this Count.

COUNT IV: INFRINGEMENT OF THE '369 PATENT

69. Vitaworks incorporates by reference paragraphs 1–56 as if fully set forth herein.

70. Glanbia has infringed at least Claims 11 and 13–18 of the '369 Patent in violation of 35 U.S.C. § 271(g), by importing into the United States, offering for sale, and selling taurine made by processes claimed in the '369 Patent.

71. Glanbia has been on notice of the infringement alleged in this Count since on or around the issuance of the '369 Patent on December 29, 2020.

72. Vitaworks has been damaged by the infringement alleged in this Count.

COUNT V: INFRINGEMENT OF THE '392 PATENT

73. Vitaworks incorporates by reference paragraphs 1–56 as if fully set forth herein.

74. Glanbia has infringed at least Claims 9–13 and 15 of the '392 Patent in violation of 35 U.S.C. § 271(g), by importing into the United States, offering for sale, and selling taurine made by processes claimed in the '392 Patent.

75. Glanbia has been on notice of the infringement alleged in this Count since on or around the issuance of the '392 Patent on January 12, 2020.

76. Vitaworks has been damaged by the infringement alleged in this Count.

COUNT VI: INFRINGEMENT OF THE '357 PATENT

77. Vitaworks incorporates by reference paragraphs 1–56 as if fully set forth herein.

78. Glanbia has infringed at least Claims 1–4 and 7–9 of the '357 Patent in violation of 35 U.S.C. § 271(g), by importing into the United States, offering for sale, and selling taurine made by processes claimed in the '357 Patent.

79. Glanbia has been on notice of the infringement alleged in this Count at least since Vitaworks sent its notice letter to Glanbia on or about December 11, 2019.

80. Vitaworks has been damaged by the infringement alleged in this Count.

COUNT VII: INFRINGEMENT OF THE '755 PATENT

81. Vitaworks incorporates by reference paragraphs 1–56 as if fully set forth herein.

82. Glanbia has infringed at least Claims 1–6 and 8–9 of the '755 Patent in violation of 35 U.S.C. § 271(g), by importing into the United States, offering for sale, and selling taurine made by processes claimed in the '755 Patent.

83. Glanbia has been on notice of the infringement alleged in this Count at least since January 2019.

84. Vitaworks has been damaged by the infringement alleged in this Count.

PRAYER FOR RELIEF

WHEREFORE, Vitaworks prays for judgment in its favor and against Glanbia and respectfully requests the following relief:

A. A judgment that Glanbia has infringed one or more claims of the the ’238 Patent, the ’333 Patent, ’354 Patent, the ’369 Patent, the ’392 Patent, the ’357 Patent, and the ’755 Patent.

B. Damages adequate to compensate Vitaworks for the infringement, but in no event less than a reasonable royalty for the use made of the inventions by Glanbia, together with interest and costs.

C. Enhanced damages up to three times the amount found or assessed for the infringement pursuant to 35 U.S.C. § 284 on the ground that Glanbia’ infringement was and is deliberate and willful.

D. An injunction against infringement of the ’238 Patent, the ’333 Patent, the ’354 Patent, the ’369 Patent, the ’392 Patent, the ’357 Patent, and the ’755 Patent.

E. A declaration that this case is exceptional within the meaning of 35 U.S.C. § 285, and awarding reasonable attorneys’ fees, costs and disbursement incurred as a result of this action; and

F. Such other and further relief as the Court deems just and proper.

JURY DEMAND

Pursuant to Fed. R. Civ. P. 38(b), Vitaworks demands a jury trial on all issues so triable.

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

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