

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS**

AMAZENTIS SA and TIMELINE
LONGEVITY, INC.

Plaintiffs,

vs.

THE AXOA COMPANY LTD. d/b/a THE
AETERNUM COMPANY

Defendant.

Civil Action No. 24-cv-11983

Jury Trial Demanded

COMPLAINT

Plaintiffs, Amazentis SA and Timeline Longevity, Inc. (“Amazentis” or “Plaintiffs”), file this complaint for patent infringement, violation of the Lanham Act, and unfair competition against The AXOA Company Ltd. d/b/a The Aeternum Company (“Aeternum”), and allege as follows:

NATURE OF THE ACTION

1. Amazentis’ claims arise under the patent laws of the United States, 35 U.S.C. § 1 et seq., including but not limited to 35 U.S.C. §§ 271 and 281-85; Section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a) et seq.; and Massachusetts’ Unfair Competition Law, Mass. General Laws §§ 93(a) et seq.

2. Amazentis brings this action to: (i) compel Aeternum to cease its infringement of Amazentis’ United States patent rights based on Aeternum’s unauthorized commercial manufacture, use, offer for sale, sale, and/or importation of Urolithin A supplement products in violation of Amazentis’ patent rights;

(ii) compel Aeternum to cease its false, deceptive, and misleading advertising and/or trade practices related to Aeternum's promotion of its Urolithin A supplement products; and (iii) compel Aeternum to compensate Amazentis for the harm caused by Aeternum's unlawful actions.

PARTIES

3. Amazentis SA is a corporation organized under the laws of Switzerland with its principal place of business at EPFL Innovation Park Batiment C, Ecublens, 1024, Switzerland, and appears in this district for the limited purpose of bringing this litigation.

4. Timeline Longevity, Inc. is a corporation organized under the laws of the State of Delaware with its principal place of business at 824 U.S. Highway 1, Suite 320, North Palm Beach, Florida 33408 and is a wholly owned and operated subsidiary of Amazentis SA.

5. Upon information and belief, The AXOA Company Ltd. d/b/a The Aeternum Company is a company organized under the laws of England having a principal place of business located at 124 City Road, London, England, EC1V 2NX, United Kingdom.

JURISDICTION AND VENUE

6. This is an action arising under (i) the patent laws of the United States, 35 U.S.C. §100 et seq., including but not limited to 35 U.S.C. §§271 and 281-85;

- (ii) Section 43(a) of the Lanham Act, 15 U.S.C. §1125(a) et seq.; and
- (iii) Massachusetts Unfair Competition Law, Massachusetts' General Laws Part I, Title XV, Chapter 93A et seq.

7. This Court has subject matter jurisdiction over Aeternum pursuant to 28 U.S.C. §§1331 and 1338. This Court also has supplemental jurisdiction over Amazentis' state-law claims pursuant to 28 U.S.C. §1367(a) because they are related to Amazentis' Lanham Act claim and form part of the same cases or controversies underlying that claim.

8. This Court has personal jurisdiction over Aeternum pursuant to Massachusetts General Laws Part III, Title II, Chapter 223A, Section 3 et seq., because, on information and belief, Aeternum regularly conducts, transacts and/or solicits business in Massachusetts, and/or derives substantial revenue from business transactions in Massachusetts, and/or is causing tortious injury in Massachusetts, and/or otherwise avails itself of the privilege and protections of the laws of the State of Massachusetts.

9. In addition, Aeternum, on information and belief, has committed unlawful acts giving rise to this action within this judicial district, including by selling its Urolithin A-containing supplement products for infringing purposes in this district, making false and misleading claims about its Urolithin A products in this district, and engaging in other deceptive trade practices in this district, such

that Aeternum reasonably should have anticipated being subject to suit in this judicial district.

10. Venue is proper in this District under 28 U.S.C. §§1391 et seq., at least because Aeternum is a foreign entity and, on information and belief, has committed unlawful acts giving rise to this action within this judicial district.

BACKGROUND
Amazentis and Urolithin A

11. Founded in 2007 by researchers at the Swiss Federal Institute of Technology, Amazentis is an innovative Swiss life sciences company that employs rigorous science to pioneer the discovery and clinical development of innovative therapeutic nutrition products. Amazentis is a leader in Urolithin research and development; its scientists have published numerous papers on Urolithin A; and it has conducted multiple clinical trials studying the use and benefits of Urolithin A as a dietary supplement and nutritional food ingredient.

12. As background, the cells of humans and other animals undergo a process called autophagy in which cells eliminate and then regenerate their own internal components that have become defective. For example, cells will recycle dysfunctional mitochondria—the internal cellular component that aerobically generates energy for the cell—through an autophagy process called mitophagy. Research performed by Amazentis and others shows that Urolithin A, a compound that can be produced by certain microflora in the mammalian intestine following

the consumption of dietary precursors, e.g., compounds called ellagitannins originating from pomegranates, plays an important role in stimulating this process.

13. However, research has also shown that the effectiveness with which intestinal microflora metabolize certain foods (e.g., pomegranates, raspberries, strawberries, black raspberries, walnuts, and almonds) to produce Urolithin A varies significantly from person to person, with most people producing insufficient Urolithin A or none at all. In addition, research has further shown that autophagy and mitophagy become less efficient with age leading to declines in health associated with aging including declines in muscle mass, energy levels, immune function, cardiovascular function, cognitive health, and other physiological deficits.

14. Through its own extensive research and development Amazentis has developed processes to chemically synthesize Urolithin A (i.e., outside of the microflora of the mammalian intestines) in sufficient quantities to be used as a dietary supplement. Further, through rigorous animal and human clinical studies, the results of which have been published in peer-reviewed and other publications, Amazentis has demonstrated that direct supplementation with effective amounts of Urolithin A in excess of the amount produced by intestinal microflora confers numerous benefits that support healthy aging, such as increased mitophagy and

mitochondrial function, increased muscle function, and increased immune function, as examples.

15. Examples of these animal and human clinical studies include an animal study published on July 11, 2016, in the peer-reviewed scientific journal Nature Medicine (<https://doi.org/10.1038/nm.4132>) entitled “Urolithin A induces mitophagy and prolongs lifespan in *C. elegans* and increased muscle function in rodents”; a human clinical study published on June 14, 2019, in the peer-reviewed scientific journal Nature Metabolism (<https://doi.org/10.1038/s42255-019-0073-4>) entitled “The mitophagy activator Urolithin A is safe and induces a molecular signature of improved mitochondrial and cellular health in humans”; a human clinical study published on January 20, 2022, in the peer-reviewed scientific journal JAMA Network (<https://doi.org/10.1001/jamanetworkopen.2021.44279>) entitled “Effect of Urolithin A Supplementation on Muscle Endurance and Mitochondrial Health in Older Adults, A Randomized Clinical Trial”; and a human clinical study published on May 17, 2022, in the peer-reviewed scientific journal Cell Reports Medicine (<https://doi.org/10.1016/j.xcrm.2022.100633>) entitled “Urolithin A improves muscle strength, exercise performance, and biomarkers of mitochondrial health in a randomized trial in middle-aged adults.” These and the results of other animal and human clinical studies conducted by Amazentis are clearly identified on Plaintiffs’ TIMELINE® website: www.timeline.com/studies.

16. Ultimately, having made significant investments to develop a safe way to effectively manufacture Urolithin A at scale and to demonstrate the effectiveness of Urolithin A as an anti-aging supplement product, Amazentis is now bringing to consumers in the United States and around the world an array of health and nutritional supplement products featuring Urolithin A branded as MITOPURE®. Amazentis is further commercializing TIMELINE®, a consumer nutrition brand containing its proprietary MITOPURE® brand of Urolithin A.

17. To protect its extensive investments in researching, developing and commercializing Urolithin nutritional supplements, Amazentis has invested in securing patent protection for its Urolithin products and production. Amazentis now owns dozens of patents and published patent applications from various jurisdictions throughout the world related to Urolithin compounds, including patents directed to processes to synthesize and scale up the production of Urolithin compounds, and supplementing one's diet with effective amounts of Urolithin compounds to improve biological functions in healthy people as well as to treat diseases. The existence of these patents, as well as numerous published patent applications owned by Amazentis, is clearly posted on Plaintiffs' TIMELINE® website, www.timeline.com/patents, an address on the Internet accessible to the public without charge.

The Patents-in-Suit

18. Amazentis is the owner of all right, title, and interest in U.S. Patents Nos. 9,872,850 (“the ’850 Patent”), 10,485,782 (“the ’782 Patent”), and 11,020,373 (“the ’373 Patent”) (collectively “the Patents-in-Suit”), with full right to bring suit to enforce the Patents-in-Suit, including the right to sue for past, present and future infringement. True and correct copies of each of the Patents-in-Suit are attached to this complaint as Exhibits A to C.

19. The ’850 Patent, entitled “Compositions and Methods for Improving Mitochondrial Function and Treating Neurodegenerative Diseases and Cognitive Disorders,” was duly and legally issued by the United States Patent and Trademark Office on January 23, 2018, and names Christopher Rinsch, William Blanco-Bose, Bernard Schneider, Charles Thomas, Carmen Sandi, Johan Auwerx, Penelope Andreux, Richardus Houtkooper, Eija Pirinen, Laurent Mouchiroud, and David Genoux as inventors, each of whom assigned their invention as disclosed in the ’850 Patent to Amazentis.

20. The ’850 Patent is valid and enforceable.

21. The ’850 Patent claims, inter alia, “[a] method of enhancing muscle performance, comprising: administering to a mammal in need thereof an effective amount of a urolithin, to increase muscle performance.”

22. The '782 Patent, entitled "Compositions and Methods for Improving Mitochondrial Function and Treating Neurodegenerative Diseases and Cognitive Disorders," was duly and legally issued by the United States Patent and Trademark Office on November 26, 2019, and names Christopher Rinsch, William Blanco-Bose, Bernard Schneider, Charles Thomas, Carmen Sandi, Johan Auwerx, Penelope Andreux, Richardus Houtkooper, Eija Pirinen, Laurent Mouchiroud, and David Genoux as inventors, each of whom assigned their invention as disclosed in the '782 Patent to Amazentis.

23. The '782 Patent is valid and enforceable.

24. The '782 Patent claims, inter alia, "[a] method of increasing or maintaining mitochondrial function, comprising: administering to a subject in need thereof an effective amount of a urolithin, thereby increasing or maintaining mitochondrial function."

25. The '373 Patent, entitled "Enhancing Autophagy Or Increasing Longevity By Administration Of Urolithins Or Precursors Thereof," was duly and legally issued by the United States Patent and Trademark Office on June 1, 2021, and names Christopher Rinsch, William Blanco-Bose, Bernard Schneider, Laurent Mouchiroud, Dongryeol Ryu, Penelope Andreux, and Johan Auwerx as inventors, each of whom assigned their invention as disclosed in the '373 Patent to Amazentis.

26. The '373 Patent is valid and enforceable.

27. The '373 Patent claims, inter alia, “[a] method of increasing autophagy, comprising the step of orally administering to a healthy human in need thereof an effective amount of urolithin A, or a pharmaceutically acceptable salt thereof, wherein the healthy human is not suffering from cancer or predisposed to developing cancer, autophagy in the healthy human is increased, and the effective amount is about 70 mg to about 1050 mg.”

Aeternum’s Infringement of the Patents-in-Suit

28. Aeternum offers for sale and sells at least two dietary supplement products containing Urolithin A through its own website, aeternum.site, as well as through e-commerce sites, including on at least Amazon.com.

29. Aeternum also promotes its Urolithin A dietary supplement products through a variety of social media platforms and channels, including on at least Facebook, TikTok, and X (formally known as Twitter).

30. Aeternum sells Urolithin A as a dietary supplement in the form of a capsule labeled as containing and purporting to contain 500 mg of Urolithin A per serving. Aeternum also sells Urolithin A as a dietary supplement in the form of a powder and recommends supplementation with various dose amounts of Urolithin A in this powder form. True and correct copies of each product page on

Aeternum's website, aeternum.site, are attached as Exhibits D and E with screenshots from those websites reproduced below:



Nutritional Information
Each capsule contains 500mg of Urolithin A
Pure Urolithin A. No preservatives, no artificial colours & no artificial flavours.
*Serving suggestion: 1 to 2 capsules per day.
*Suggestion Only. Products of this nature to be taken in consultation with a medical professional.
† Daily Value not established



Nutritional Information
15g Urolithin A No preservatives, no artificial colours & no artificial flavours.
*Serving Size: 500mg to 1,000mg Scoop size 500mg
† Daily Value not established

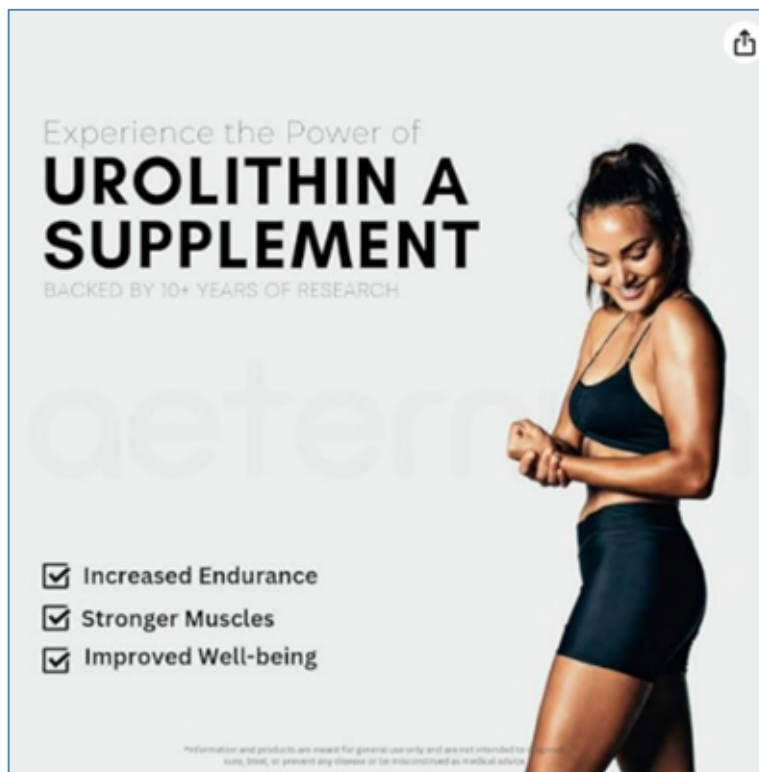
Nutritional Information
30g Urolithin A No preservatives, no artificial colours & no artificial flavours.
*Serving Size: 500mg to 1,000mg Scoop size 500mg
† Daily Value not established

Nutritional Information
100g Urolithin A No preservatives, no artificial colours & no artificial flavours.
*Serving Size: 500mg to 1,000mg Scoop size 500mg
† Daily Value not established

31. Aeternum also offers for sale and sells its Urolithin A supplement products on Amazon.com. True and correct copies of Aeternum's Amazon.com

webpages for its Urolithin A supplement products are attached to this Complaint as Exhibits F, G, and H.

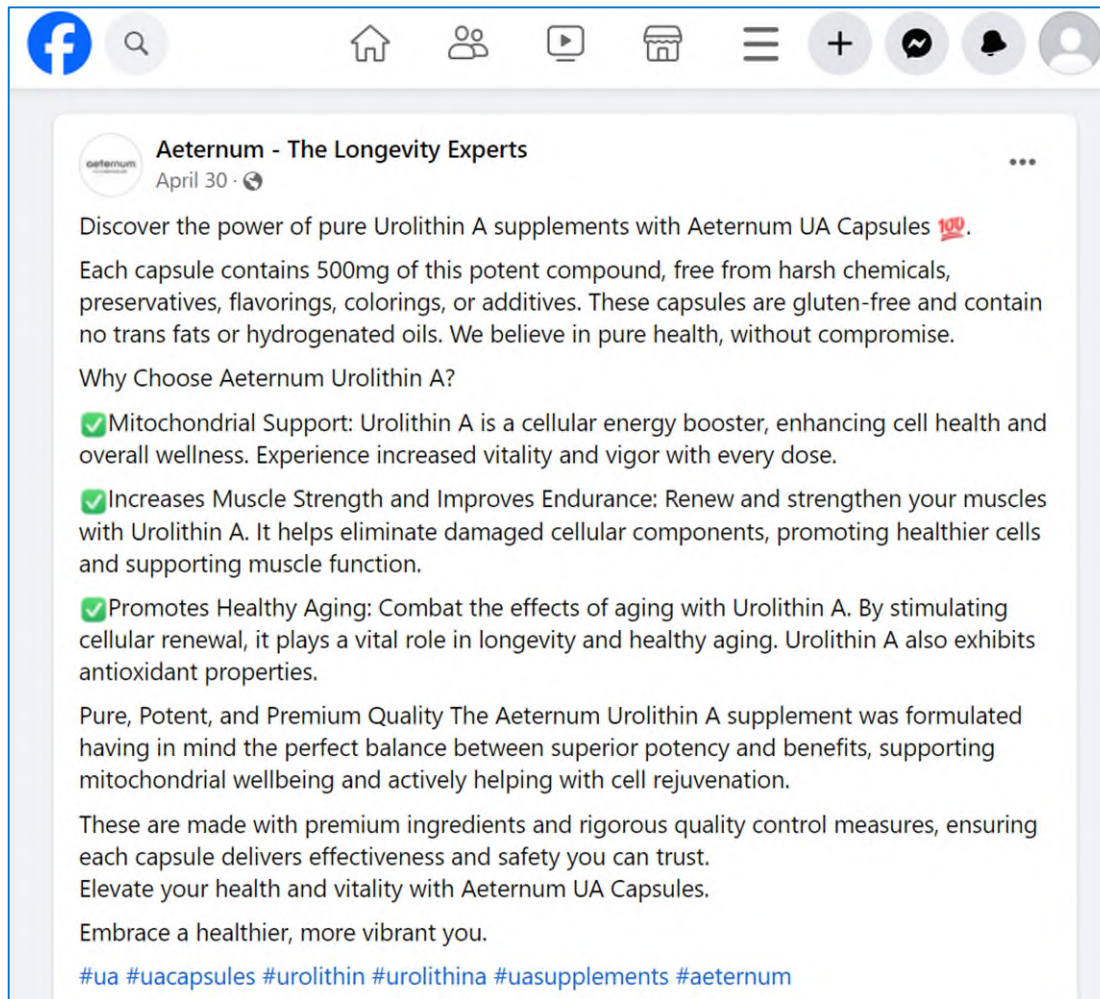
32. As illustrated by the image below that is present on each of Aeternum's Urolithin A product pages on Amazon, Aeternum advertises the benefits of its Urolithin A supplements to include "Increased Endurance," "Stronger Muscles," and "Improved Well-being."



33. Aeternum also promotes its Urolithin A supplement products on social media, including on at least Facebook, TikTok and X.

34. On a post of Facebook, an excerpt for which is copied below, Aeternum identifies the benefits associated with taking its Urolithin A supplement

to include “Mitochondrial Support,” “Increases Muscle Strength and Improves Endurance,” and “Promotes Health Aging.”



35. Aeternum makes similar promotional statements on TikTok and X.

For example, in the graphic posted on both TikTok and X, reprinted below, Aeternum touts its Urolithin A products as supporting muscle and mitochondrial health as well as boosting cellular energy and helping with the removal of damaged cellular components.



The graphic is a promotional poster for Aeternum UA (Urolithin A). At the top left, there are four circular icons: a wheat stalk (Gluten-Free), a circular arrow with 'GMO' (GMO-Free), a muscular arm (Supports Muscle Health), and an hourglass (Promotes Healthy Aging). To the right of these icons, the text reads: 'Aeternum UA (Urolithin A) is pure Urolithin A! Meaning no harsh chemicals, preservatives, flavorings, colorings or additives. (All of which go against the principles of health which we at Aeternum find more than ironic).' Below this, a hand is shown holding a glowing orb. To the right of the hand, the text says: 'MITOCHONDRIAL SUPPORT Urolithin A acts as a cellular energy booster, promoting cell health and overall wellness. This makes it a great option for individuals looking to enhance their overall health and vitality.' Below the hand, the text says: 'HEALTHY AGING Urolithin A helps remove damaged cellular components and promote the renewal of healthier cells, which is a key aspect of longevity.' At the bottom left, the text says: '100% PURITY AND PREMIUM QUALITY Our Urolithin A supplement is made with high-quality ingredients to guarantee potency and effectiveness. We prioritize purity, strength, and safety, adhering to strict quality control standards in our manufacturing process.' On the right side, there are two white bottles of Aeternum UA (Urolithin A) capsules, one 60 Capsules and one 30 Capsules.

Gluten-Free **GMO-Free**

Supports Muscle Health **Promotes Healthy Aging**

Aeternum UA (Urolithin A) is pure Urolithin A!

Meaning no harsh chemicals, preservatives, flavorings, colorings or additives. (All of which go against the principles of health which we at Aeternum find more than ironic).

MITOCHONDRIAL SUPPORT

Urolithin A acts as a cellular energy booster, promoting cell health and overall wellness. This makes it a great option for individuals looking to enhance their overall health and vitality.

HEALTHY AGING

Urolithin A helps remove damaged cellular components and promote the renewal of healthier cells, which is a key aspect of longevity.

100% PURITY AND PREMIUM QUALITY

Our Urolithin A supplement is made with high-quality ingredients to guarantee potency and effectiveness. We prioritize purity, strength, and safety, adhering to strict quality control standards in our manufacturing process.

36. True and correct copies of Aeternum’s promotional materials for its Urolithin A products as they appear on Facebook, TikTok and X are attached to this Complaint as Exhibits I, J, and K.

37. Independent claim 1 of the ’850 Patent recites: “A method of enhancing muscle performance, comprising: administering to a mammal in need thereof an effective amount of a urolithin, to increase muscle performance.”

38. On information and belief, Aeternum's statements in the attached exhibits, as referenced herein, are meant to convey that taking Aeternum's Urolithin A products increase muscle performance.

39. On information and belief, Aeternum's customers directly infringe, literally or under the doctrine of equivalents, at least independent claim 1 of the '850 Patent as well as at least the following additional claims that depend on claim 1:

- claim 2 (“wherein the muscle performance is selected from the group consisting of strength, speed, and endurance”),
- claim 4 (“wherein the urolithin is administered orally”),
- claim 7 (“wherein the urolithin is administered at least daily”),
- claim 8 (“wherein the urolithin is urolithin A”),
- claim 12 (“wherein the said enhancement is improved muscle function”),
- claim 13 (“wherein the said enhancement is increased muscle mass”),
- claim 17 (“wherein the mammal is a human”),
- claim 18, which also depends on claim 17 (“wherein the urolithin is administered orally”),

- claim 19, which also depends on claim 18 (“wherein the urolithin is urolithin A”), and
- claim 39 (“wherein the urolithin is administered in the form of a dietary supplement.”)

40. Independent claim 20 of the ’850 Patent recites: “A method of maintaining muscle performance, comprising: administering to a mammal in need thereof an effective amount of a urolithin, to maintain muscle performance.”

41. On information and belief, Aeternum’s customers directly infringe, literally or under the doctrine of equivalents, at least independent claim 20 of the ’850 Patent as well as at least the following additional claims that depend on claim 20:

- claim 21 (“wherein the muscle performance is selected from the group consisting of strength, speed, and endurance”),
- claim 22 (“wherein the urolithin is urolithin A”),
- claim 23 (“wherein the urolithin is administered orally”),
- claim 26 (“wherein the urolithin is administered at least daily”),
- claim 27 (“wherein the said method maintains muscle function”),
- claim 28 (“wherein the said method maintains muscle mass”),
- claim 31 (“wherein the mammal is a human”),

- claim 32, which also depends on claim 31 (“wherein the urolithin is administered orally”),
- claim 33, which also depends on claim 31 (“wherein the urolithin is urolithin A”),
- claim 34 (“wherein the mammal is human; the urolithin is administered orally; and the urolithin is urolithin A”), and
- claim 45 (“wherein the urolithin is administered in the form of a dietary supplement”).

42. On information and belief, by offering for sale and selling “effective amount[s]” of Urolithin A as supplement products, while having knowledge of or being willfully blind to existence of the ’850 Patent, Aeternum actively induces the infringement of at least claims 1-2, 4, 7-8, 12-13, 17-23, 26-28, 31-34, 39, and 45 of the ’850 Patent.

43. On information and belief, Aeternum’s labeling, marketing, promotional, and sales materials and actions in offering for sale and selling “effective amount[s]” of its Urolithin A as supplement products, while having knowledge of or being willfully blind to existence of the ’850 Patent, actively induces the infringement of at least claims 1-2, 4, 7-8, 12-13, 17-23, 26-28, 31-34, 39, and 45 of the ’850 Patent.

44. On information and belief, by offering for sale and selling “effective amount[s]” of Urolithin A as supplement products, while knowing that those products are especially adapted for use in an infringement of the ’850 Patent, and not a staple article or commodity of commerce suitable for substantial noninfringing uses, particularly in view of Amazentis’ other patent rights, Aeternum has contributed to the infringement of at least claims 1-2, 4, 7-8, 12-13, 17-23, 26-28, 31-34, 39, and 45 of the ’850 Patent.

45. Independent claim 1 of the ’782 Patent recites: “A method of increasing or maintaining mitochondrial function, comprising: administering to a subject in need thereof an effective amount of a urolithin, thereby increasing or maintaining mitochondrial function.”

46. On information and belief, Aeternum’s statements in the attached exhibits, as referenced herein, are meant to convey that taking Aeternum’s Urolithin A products increase or maintain mitochondrial function.

47. On information and belief, Aeternum’s customers directly infringe, literally or under the doctrine of equivalents, at least independent claim 1 of the ’782 Patent as well as at least the following additional claims that depend on claim 1:

- claim 3 (“wherein the urolithin is urolithin A”),
- claim 5 (wherein the urolithin is administered orally”),

- claim 7 (“wherein the subject is a human”),
- claim 21 (“wherein mitochondrial function is maintained”),
- claim 22 (“wherein mitochondrial function is increased”),
- claim 23 (“wherein mitochondrial activity is increased”),
- claim 25 (“wherein the energy of the subject is increased”),
- claim 26 (“wherein mitochondrial biogenesis is increased”),
- claim 28 (“wherein ATP levels are increased in tissue”) and
- claim 29, which also depends on claim 28 (“wherein the tissue is a muscle tissue”).

48. On information and belief, by offering for sale and selling “effective amount[s]” of Urolithin A as supplement products, while having knowledge of or being willfully blind to existence of the ’782 Patent, Aeternum actively induces to the infringement of at least claims 1, 3, 5, 7, 21-23, 25-26, and 28-29 of the ’782 Patent.

49. On information and belief, Aeternum’s labeling, marketing, promotional, and sales materials and actions in offering for sale and selling “effective amount[s]” of its Urolithin A as supplement products, while having knowledge of or being willfully blind to existence of the ’782 Patent, actively induces the infringement of at least claims 1, 3, 5, 7, 21-23, 25-26, and 28-29 of the ’782 Patent.

50. On information and belief, by offering for sale and selling “effective amount[s]” of Urolithin A as supplement products, while knowing that it is especially adapted for use in an infringement of the ’782 Patent, and not a staple article or commodity of commerce suitable for substantial noninfringing uses, particularly in view of Amazentis’ other duly granted patent rights, Aeternum has contributed to the infringement of at least claims 1, 3, 5, 7, 21-23, 25-26, and 28-29 of the ’782 Patent.

51. Independent claim 1 of the ’373 Patent recites: “A method of increasing autophagy, comprising the step of orally administering to a healthy human in need thereof an effective amount of urolithin A, or a pharmaceutically acceptable salt thereof, wherein the healthy human is not suffering from cancer or predisposed to developing cancer, autophagy in the healthy human is increased, and the effective amount is about 70 mg to about 1050 mg.”

52. On information and belief, Aeternum’s statements in the attached exhibits, as referenced herein, are meant to convey that taking Aeternum’s Urolithin A products at the listed dosages increases autophagy in a healthy human.

53. On information and belief, Aeternum’s customers directly infringe, literally or under the doctrine of equivalents, at least independent claim 1 of the ’373 Patent as well as at least the following additional claims that depend on claim 1:

- claim 2 (“wherein the autophagy is mitophagy”),
- claim 5 (“wherein the effective amount is about 140 mg to about 630 mg”),
- claim 6 (“wherein the effective amount is about 210 mg to about 520 mg”),
- claim 7 (“wherein the effective amount is about 140 mg to about 525 mg”),
- claim 8 (“wherein the effective amount is about 280 mg to about 490 mg”), and
- claim 10 (“wherein the effective amount is about 500 mg”).

54. On information and belief, by offering for sale and selling “effective amount[s]” of Urolithin A, between “about 70 mg and about 1050 mg” as a supplement product, while having knowledge of or being willfully blind to existence of the ’373 Patent, Aeternum actively induces to the infringement of at least claims 1-2, 5-8, and 10 of the ’373 Patent.

55. On information and belief, Aeternum’s labeling, marketing, promotional, and sales materials and actions in offering for sale and selling “effective amount[s]” of its Urolithin A as supplement products, while having knowledge of or being willfully blind to existence of the ’373 Patent, actively induces the infringement of at least claims 1-2, 5-8, and 10 of the ’373 Patent.

56. On information and belief, by offering for sale and selling “effective amount[s]” of Urolithin A, between “about 70 mg and about 1050 mg” as a supplement product, while knowing that it is especially adapted for use in an infringement of the ’373 Patent, and not a staple article or commodity of commerce suitable for substantial noninfringing uses, particularly in view of Amazentis’ other duly granted patent rights, Aeternum has contributed to the infringement of at least claims 1-2, 5-8, and 10 of the ’373 Patent.

Aeternum’s Knowledge and Willful Infringement of the Patents-in-Suit

57. Amazentis has caused the patent numbers of each of the Patents-in-Suit to appear on articles practicing the Patents-in-Suit and/or by directing the public to an Internet location (accessible to the public without charge) that associates the patented articles with the number of the patent(s) in compliance with 35 U.S.C. §287.

58. Moreover, Aeternum has known since at least April 21, 2023, of the existence of at least the ’850 Patent, ’782 Patent, and ’373 Patent, the inventions claimed in these patents, their relevance to Aeternum’s Urolithin A products, that it was infringing, inducing the infringement of, and contributing to the infringement of those patents, and it continued to infringe those patents.

59. On April 21, 2023, Amazentis sent a letter by FedEx and email to Aeternum identifying Aeternum’s powder Urolithin A product as infringing

Amazentis' '850, '782, and '373 Patents. At that time, on information and belief, Aeternum was selling its powder Urolithin A product. Amazentis further explained with examples how Aeternum was infringing Amazentis '850 and '782 Patents under 35 U.S.C. § 271(b) and (c).

60. On May 2, 2023, Aeternum responded acknowledging receipt of Amazentis' cease and desist letter. Rather than respect Amazentis' patent rights, Aeternum responded by promising to remove its marketing statements about the benefits of taking Urolithin A as a dietary supplement while continuing to sell its powder Urolithin A product.

61. Moreover, on information and belief, by no later than April 2024, with full knowledge of the Asserted Patents, Aeternum released its 500 mg Urolithin A capsule dietary supplement product. As illustrated above and by the attached exhibits from Aeternum's website, Amazon pages, and social media accounts, Aeternum has continued to instruct its customers that its Urolithin A products increase muscle endurance and performance and offer mitochondrial support.

62. Accordingly, Aeternum was aware of the '850, '782, and '373 Patents and its infringement of those patents at least as early as April 21, 2023, the date it received Amazentis' letter, although it should have been aware it was infringing those patents earlier.

63. Aeternum has also known that its commercial offers for sale and sale of its Urolithin A products have infringed and will infringe one or more claims of the '850, '782, and '373 Patents, directly or indirectly, since at least April 21, 2023. At least since April 21, 2023, Aeternum has acted, and will continue to act, with a specific intent to induce others to infringe the '850, '782, and '373 Patents.

64. In addition, the filing of this Complaint provides notice to Aeternum of the Patents-in-Suit under 35 U.S.C. § 287.

Aeternum's False Advertising and Deceptive Trade Practices

65. In addition to committing acts of known patent infringement as detailed above, Aeternum has misrepresented to the public the amount of Urolithin A contained in its Urolithin A supplement products.

66. Aeternum advertises on its own website, on Amazon, and elsewhere, that its Urolithin A supplement capsule product is labeled as containing and purports to contain 500 mg of Urolithin A per serving in one capsule ("Aeternum's 500 mg Urolithin A capsule") when in fact each capsule contains significantly less than the advertised amount.

67. Prior to the filing of this complaint, an independent third-party laboratory, Neutron, tested samples of Aeternum's 500 mg Urolithin A capsule product to confirm the presence and determine the amount of Urolithin A in representative capsules of that product.

68. Neutron's testing of Aeternum's Urolithin A 500 mg capsule product was conducted using High-Performance Liquid Chromatography – a technique in analytical chemistry used to separate, identify, and quantify specific components in mixtures. Neutron's Urolithin A analysis was performed in duplicate on 10 capsules from the tested product. The test's detection threshold was approximately 1% of the claimed UA dose (e.g., approx. 5.0 mg for capsules that actually contained 500 mg of Urolithin A).

69. A true and correct copy of Neutron's test report for Aeternum's 500 mg Urolithin A capsule product is attached to this complaint as Exhibit L.

70. Aeternum sells a product that it advertises as containing 500 mg of Urolithin A per dose where one dose is described as comprising one capsule containing 500 mg of Urolithin A. (On information and belief, some consumers may take more than one capsule at a time.)

71. As shown in Exhibit L, despite being advertised and labeled by Aeternum as containing 500 mg of Urolithin A, those capsules contain only approx. 390 mg of Urolithin A.

72. In other words, the capsules of Aeternum's 500 mg Urolithin product that Neutron tested had only about eighty percent the advertised amount of Urolithin A.

73. Thus, Aeternum's representation that its capsules for Urolithin A contain 500 mg of Urolithin A is false.

74. Consumers rely on product labels, including Aeternum's product labels, when purchasing supplements, including Urolithin A.

75. By selling Urolithin A supplements that contain significantly less Urolithin A per serving than advertised for each product, Aeternum has engaged in false and misleading advertising that has harmed its customers who rely on the accuracy of labels on supplement products.

76. Aeternum offers for sale and sells supplement products on its website and on Amazon that directly compete with Amazentis' Urolithin A products.

77. Aeternum misrepresentations of the amount of Urolithin A contained in those products has also harmed and continues to harm Amazentis. Aeternum's Urolithin A products directly compete against Amazentis' Urolithin A products. A true and correct copy of a blog post from March 2024 is attached to this Complaint as Exhibit M. As this blog post illustrates Aeternum's Urolithin A products are directly compared to and compete with Amazentis' Urolithin A products.

78. By falsely labeling its Urolithin A capsule product as having an equivalent dose to Urolithin A products offered by Amazentis, Aeternum has

caused harm to Amazentis, including irreparable harm to Amazentis' business and reputation, and has caused Amazentis to lose sales of its Urolithin A products.

79. The harm caused by the Aeternum's incorrect Urolithin A labeling has been compounded by Aeternum's claims that its products are tested and pure as well as by a misleading "Certificate of Analysis" that Aeternum includes on its website for its Urolithin A capsule product (a true and correct copy of which is attached to this Complaint as Exhibit N and reprinted below). In particular, Aeternum repeatedly claims that its supplements are "third party tested" and "of the highest purity." *See* Exhibit D. Neutron's test report, Exhibit L, demonstrates that these statements are not correct. Moreover, Aeternum advertising of its Certificate of Analysis on its website is misleading because it purposefully does not report the amount of Urolithin A contained in each capsule of Aeternum's purported 500 mg Urolithin A capsule product, thus misleading consumers.



ISO/IEC 17025:2017
 PJLA Accreditation #: 75696
 Accreditation Field: Testing
 lab@summitnutritional.com

Report Number: 240528 017-03.60
 Date Reported: 06/10/2024
 Date(s) Tested: 05/28/2024 - 06/10/2024

Sample Details

Product #: Urolithin A
 Description: Urolithin A
 Lot #: NI-UA-240512
 Received: 5/28/2024 2:32:54 PM

Customer Information

Aeternum

Sample Details:

Certificate of Analysis

Chemistry	Method	Specifications	Result	Units
Botanicals and Nutraceuticals				
Urolithin A	HPLC	95 - 102	100.612	g/100g

Report Approved by: 
 Joel Nelson
 Laboratory Manager

*= Please review Client Specifications

Y=Indicates an ISO/IEC 17025:2017 accredited analysis. To review the full scope of accreditation, visit www.summitnutritional.com

Report Numbers that have been revised or amended will include a revision number.

This Certificate of Analysis shall not be reproduced, except in full, without written permission from the laboratory. This Certificate of Analysis results apply to the items tested. Further information is available, upon request, when needed for the interpretation of the test results.
 This Certificate of Analysis is provided for the exclusive use of the addressee. The laboratory accepts no responsibility/liability except for the due performance of inspection and/or analysis in good faith.

80. Aeternum's representations that it conducts third party tests of its Urolithin A supplement products and its inclusion of misleading test results on its aeternum.site webpage give consumers and potential customers the false impression that Aeternum has tested its Urolithin A products and confirmed the amount of Urolithin A represented on its product packaging, website, and advertisements, is correct.

CLAIMS FOR RELIEF

COUNT I

(Infringement of U.S. Patent 9,872,850)

81. Amazentis realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

82. Aeternum's customers have been, and are still directly infringing, literally and/or under the doctrine of equivalents, one or more claims of the '850 Patent, including at least claims 1-2, 4, 7-8, 12-13, 17-23, 26-28, 31-34, 39, and 45, by using Aeternum's Urolithin A supplement products in the United States, without authority.

83. Aeternum has, through its actions (including but not limited to the sale and promotion of its Urolithin A supplement products and/or through the instructions on the labels of its Urolithin A supplement products), induced others including its customers to infringe one or more claims of the '850 Patent, including at least claims 1-2, 4, 7-8, 12-13, 17-23, 26-28, 31-34, 39, and 45.

84. Aeternum has through its actions (including but not limited to the sale and promotion of its Urolithin A supplement products and/or through the instructions on the label of its Urolithin A supplement product), contributed to the infringement of one or more claims of the '850 Patent, including at least claims 1-2, 4, 7-8, 12-13, 17-23, 26-28, 31-34, 39, and 45.

85. Aeternum's infringement of the '850 Patent has been and continues to be willful.

86. Amazentis has and will continue to suffer damages because of Aeternum's infringement of the '850 Patent.

87. Amazentis has and will continue to be irreparably harmed by Aeternum's infringement of the '850 Patent until and unless Aeternum's infringing acts are enjoined or otherwise cease.

COUNT II
(Infringement of U.S. Patent 10,485,782)

88. Amazentis realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

89. Aeternum's customers have been, and are still directly infringing, literally and/or under the doctrine of equivalents, one or more claims of the '782 Patent, including at least claims 1, 3, 7, 21-23, 26, and 28-29, by using Aeternum's Urolithin A supplement products in the United States, without authority.

90. Aeternum has, through its actions (including but not limited to the sale and promotion of its Urolithin A supplement products and/or through the instructions on the label of its Urolithin A supplement products), induced others including its customers to infringe one or more claims of the '782 Patent, including at least claims 1, 3, 7, 21-23, 26, and 28-29.

91. Aeternum has through its actions (including but not limited to the sale and promotion of its Urolithin A supplement products and/or through the instructions on the label of its Urolithin A supplement products), contributed to the infringement of one or more claims of the '782 Patent, including at least claims 1, 3, 7, 21-23, 26, and 28-29.

92. Aeternum's infringement of the '782 Patent has been and continues to be willful.

93. Amazentis has and will continue to suffer damages because of Aeternum's infringement of the '782 Patent.

94. Amazentis has and will continue to be irreparably harmed by Aeternum's infringement of the '782 Patent until and unless Aeternum's infringing acts are enjoined or otherwise cease.

COUNT III
(Infringement of U.S. Patent 11,020,373)

95. Amazentis realleges and incorporates by reference the forgoing paragraphs as if fully set forth herein.

96. Aeternum's customers have been, and are still directly infringing, literally and/or under the doctrine of equivalents, one or more claims of the '373 Patent, including at least claims 1-2, 5-8, and 10, by using Aeternum's Urolithin A supplement products in the United States, without authority.

97. Aeternum has, through its actions (including but not limited to the sale and promotion of its Urolithin A supplement products and/or through the instructions on the label of its Urolithin A supplement products) induced others including its customers to infringe one or more claims of the '373 Patent, including at least claims 1-2, 5-8, and 10.

98. Aeternum has through its actions (including but not limited to the sale and promotion of its Urolithin A supplement products and/or through the instructions on the label of its Urolithin A supplement products) contributed to the infringement of one or more claims of the '373 Patent, including at least claims 1-2, 5-8, and 10.

99. Aeternum's infringement of the '373 Patent has been and continues to be willful.

100. Amazentis has and will continue to suffer damages because of Aeternum's infringement of the '373 Patent.

101. Amazentis has and will continue to be irreparably harmed by Aeternum's infringement of the '373 Patent until and unless Aeternum's infringing acts are enjoined or otherwise cease.

COUNT IV
(Unfair Competition & False Advertising in Violation of the Lanham Act)
(15 U.S.C. § 1125)

102. Amazentis realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

103. Amazentis has invested significant time, money, and other resources in developing the market for Urolithin A products, marketing its own Urolithin A product, and in creating goodwill and trust with the community and its consumers.

104. At all relevant times, Amazentis has been engaged in the business of marketing and selling its Urolithin A product in interstate commerce via the Internet, including its website and Amazon.com.

105. At all relevant times, Aeternum has been engaged in the business or marketing and selling its Urolithin A product in interstate commerce via the Internet, including its website and Amazon.com.

106. Aeternum has made and continues to make false and misleading statements in interstate commerce, including in its Urolithin A product labels, advertising, and promotional materials to customers, potential customers, and other members of the public.

107. Aeternum's false and misleading statements have and will continue to affect goods that have travelled and will travel in interstate commerce, including both Aeternum's and Amazentis' Urolithin A supplement products.

108. Aeternum's false and misleading statements have or will have the effect of misleading customers, potential customers and other members of the public, including but not limited to, in the beliefs that Aeternum's Urolithin A supplement products contain the amounts of Urolithin A reflected on their product labels or that the amount of Urolithin A in one serving of Aeternum's Urolithin A products is the same as the amount in one serving of Amazentis' Urolithin A products.

109. Aeternum's statements, including those described at Paragraphs 65 to 80, *supra*, are literally false and/or misleading commercial speech in violation of Section 43(a) of the Lanham Act, 15, U.S.C. § 1125(a).

110. Aeternum's false and misleading statements are material and likely to influence the decisions of customers, potential customers, and other members of the public, including, but not limited to, the decisions to purchase Urolithin A supplement products, such as the choice to purchase Aeternum's Urolithin A product rather than Amazentis' Urolithin A product.

111. At all relevant times, Aeternum knew that its products did not contain the advertised amount of Urolithin A. Aeternum has made these false and misleading statements knowingly, willfully and/or negligently.

112. Amazentis has suffered, and will in the future suffer, harm as a result of Aeternum's false and misleading statements, including diminished reputation,

loss of goodwill, lost sales, loss of future revenue, loss of investments, loss of customers, and/or confusion about comparative attributes of Aeternum's and Amazentis' Urolithin A supplement products.

113. Aeternum's conduct violates Section 43(a) of the Lanham Act in a manner that harms Amazentis. Amazentis is therefore entitled to all relief available under the Lanham Act, 15 U.S.C. § 1117(a), including but not limited to disgorgement of Aeternum's profits, actual damages, and attorneys' fees and costs.

COUNT V
(Deceptive Trade Practices Under Mass. General Laws §§ 93(a))

114. Amazentis realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

115. Aeternum has made false and misleading statements, including those described at Paragraphs 65 to 80, supra, that constitute deceptive trade practices in violation of Massachusetts Unfair Competition Law, Massachusetts' General Laws Part I, Title XV, Chapter 93A et seq.

116. Aeternum's false and misleading statements misstate and inflate the amount of Urolithin A actually contained in Aeternum's Urolithin A products.

117. Aeternum has falsely and misleadingly represented one serving of its Urolithin A products contain the same amount of Urolithin A as one serving of Amazentis' Urolithin A products.

118. Aeternum's false and misleading statements incorrectly represent that Aeternum has tested the purity and content of its Urolithin A products.

119. Aeternum's false and misleading statements have likely deceived and, unless stopped, will continue to deceive, customers, potential customers, and the public about the quantity of Urolithin A contained in Aeternum's Urolithin A supplement products.

120. Amazentis has suffered, and will in the future suffer, harm as a result of Aeternum's false and misleading statements.

121. Aeternum made its false and misleading statements knowingly, recklessly, or negligently.

PRAYER FOR RELIEF

WHEREFORE, Amazentis respectfully requests the following relief:

A. A judgment that Aeternum has infringed, either directly or indirectly, the '850, '782, and '373 Patents;

B. An order preliminarily and/or permanently enjoining Aeternum, together with its directors, officers, agents, servants, employees, attorneys, parents, subsidiaries, divisions, affiliates, other related business entities, and all persons in active concert or privity with them and their successors and assigns, from directly or indirectly infringing the '850, '782, and '373 Patents;

C. A judgment that awards Amazentis damages adequate to compensate for Aeternum's infringing acts in accordance with 35 U.S.C. § 284;

D. In the event that a permanent injunction is not granted, damages for any continuing future infringement of the '850, '782, and '373 Patents;

E. A judgment declaring that Aeternum's infringement has been willful and awarding enhanced damages under 35 U.S.C. § 284;

F. Finding that this case is exception under 35 U.S.C. § 285, and awarding Amazentis its reasonable attorneys' fees incurred in connection with this action;

G. A judgment that Aeternum has violated 15 U.S.C. § 1125(a), including in connection with its false and misleading promotion and/or labeling of its Urolithin A supplement products;

H. A judgment that Aeternum has violated the Massachusetts Unfair Competition Law, Massachusetts' General Laws Part I, Title XV, Chapter 93A et seq, including in connection with its false and misleading activities concerning its Urolithin A supplement products;

I. An injunction enjoining Aeternum, together with its directors, officers, agents, servants, employees, attorneys, parents, subsidiaries, divisions, affiliates, other related business entities, and all persons in active concert or privity

with them and their successors and assigns, from making false and misleading statements about Aeternum's and/or Amazentis' Urolithin A products;

J. An order requiring Aeternum to take all necessary corrective measures to correct any false and misleading impressions created among customers, potential customers, and the public by Aeternum's false and misleading statements;

K. A judgment that awards Amazentis damages for Aeternum's violation of 15 U.S.C. § 1125(a), including but not limited to Amazentis' lost business and profit, harm to Amazentis' goodwill and reputation, and Aeternum's ill-gotten and justly derived revenues;

L. An award of punitive and exemplary damages for Aeternum's violation of 15 U.S.C. § 1125(a);

M. An award of attorneys' fees Amazentis incurred for Aeternum's violations of 15 U.S.C. § 1125(a);

N. A judgment that awards Amazentis damages for Aeternum's violations of Massachusetts Unfair Competition Law, Massachusetts' General Laws Part I, Title XV, Chapter 93A;

O. An award of enhanced damages for Aeternum's violations of Massachusetts Unfair Competition Law, Massachusetts' General Laws Part I, Title XV, Chapter 93A;

P. An award of attorneys' fees Amazentis incurred for Aeternum's violations of Massachusetts Unfair Competition Law, Massachusetts' General Laws Part I, Title XV, Chapter 93A.

Q. Awarding Amazentis its costs and expenses in this action, including expert and witness fees;

R. An award of prejudgment and post-judgment interest;

S. Awarding Amazentis such other and future relief as this Court deems just and appropriate.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Amazentis respectfully demands a trial by jury on all issues triable by jury.

Dated: August 1, 2024

By: /s/ Nathaniel J. McPherson

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