

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

UNIVERSITY OF MASSACHUSETTS  
MEDICAL SCHOOL and CARMEL  
LABORATORIES, LLC,

Plaintiffs,

v.

L'ORÉAL S.A. and L'ORÉAL USA, INC.,

Defendants.

**Civil Action No. 17-cv-868-JFB-SRF**

**JURY TRIAL DEMANDED**

**FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

1. Plaintiffs UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL (“UMass”) and CARMEL LABORATORIES, LLC (“Carmel Labs”) for their Complaint against Defendants L'ORÉAL S.A. (“L'Oréal”) and L'ORÉAL USA, INC. (“L'Oréal USA”) (together, “Defendants”) allege:

**THE PARTIES**

1. Plaintiff UMass is a public institution of higher education with its principal address at 333 South Street, Suite 400, Shrewsbury, MA 01545.

2. Teresian Carmelites, Inc. (“Teresian Carmelites”) is a non-profit religious organization with its principal address at 167 Riverlin Street, Millbury, MA 01527.

3. Plaintiff Carmel Labs is a limited liability company with its principal place of business at 167 Riverlin Street, Millbury, MA 01527. Carmel Labs is a wholly-owned for-profit subsidiary of Teresian Carmelites. Profits realized by Carmel Labs are used to support Teresian Carmelites' charitable works.

4. UMass is the assignee and Carmel Labs is the exclusive licensee of United States Patent Numbers 6,423,327 (attached as Exhibit 1) and 6,645,513 (attached as Exhibit 2) (the “patents-in-suit”).

5. Plaintiffs are informed and believe, and on that basis allege, that Defendant L’Oréal is a French corporation with its principal place of business at 41 Rue Martre, Clichy, Paris, Ile-de-France 92117, France.

6. Plaintiffs are informed and believe, and on that basis allege, that Defendant L’Oréal USA is a Delaware corporation with its principal place of business at 10 Hudson Yards, New York, NY 10001. Plaintiffs are further informed and believe that L’Oréal USA’s registered agent is The Prentice-Hall Corporation System, Inc., 2711 Centerville Road Suite 400, Wilmington, DE 19808.

7. L’Oréal USA is a wholly-owned subsidiary of L’Oréal. On information and belief, L’Oréal USA is the agent of L’Oréal, which controls or otherwise directs and authorizes the activities of L’Oréal USA.

#### **JURISDICTION AND VENUE**

8. The court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq.* Venue is proper in this federal district pursuant to 28 U.S.C. §§ 1391(b)-(c) and 1400(b).

#### **THE CLAIMED ADENOSINE TECHNOLOGY**

9. Adenosine is a naturally occurring purine nucleoside that plays an important role in a variety of biochemical processes. It is used by physicians in therapeutic and diagnostic cardiac applications, for example, to treat arrhythmias or during cardiac stress tests.

10. Dr. James G. Dobson, Jr., a renowned cardiovascular physiologist and the former Chairman of the Department of Physiology at the University of Massachusetts Medical School, has been conducting research on adenosine since approximately the mid 1960's. Dr. Dobson and his colleague, Dr. Michael Ethier, discovered that topical application of adenosine can be used to enhance the condition of the skin by applying adenosine to the dermal cells in specified concentrations without increasing dermal cell proliferation.

11. Their discoveries are embodied in U.S. Patent Nos. 6,423,327 (the "'327 patent") and 6,645,513 (the "'513 patent") (collectively, the "patents-in-suit").

12. Claim 1 of the '327 patent recites, for example: "A method for enhancing the condition of unbroken skin of a mammal by reducing one or more of wrinkling, roughness, dryness, or laxity of the skin, without increasing dermal cell proliferation, the method comprising topically applying to the skin a composition comprising a concentration of adenosine in an amount effective to enhance the condition of the skin without increasing dermal cell proliferation, wherein the adenosine concentration applied to the dermal cells is  $10^{-4}$  M to  $10^{-7}$  M." Claim 1 of the '513 patent reads identically, but provides that "the adenosine concentration applied to the dermal cells is  $10^{-3}$  M to  $10^{-7}$  M."

13. Other dependent claims of both patents add more limitations. For example, dependent claims 9 of both the '327 and '513 patents provide additional limitations, stating that "[t]he method of claim 1, wherein the composition further comprises a transdermal agent."

#### **PLAINTIFFS' EASEAMINE PRODUCTS**

14. Teresian Carmelites is a non-profit Christian monastery dedicated to prayer, contemplation, and service to the poor and marginalized. The members of Teresian Carmelites fulfill their mission through charitable works such as rehabilitation programs for the incarcerated

or persons with alcohol or drug addictions, inner city educational programs, and other programs to benefit the disadvantaged in their surrounding community.

15. Through Dr. Dobson's long-standing relationship with the religious order, Teresian Carmelites became aware of the technology covered by the patents-in-suit. Teresian Carmelites negotiated a license and founded Carmel Labs, a for-profit subsidiary. Carmel Labs has been the exclusive licensee of the patents-in-suit for all cosmetic applications since 2008. Profits realized by Carmel Labs sustain Teresian Carmelites' financial needs, and fund its charitable programs.

16. Carmel Labs developed "Easeamine," a high-end anti-aging face cream using the patented adenosine technology. Easeamine was initially released in 2009 and, due to its innovative and unique properties, received favorable press in newspapers around the world, leading to significant sales in its first year.

17. Based on the strength of initial sales, Carmel Labs reinvested substantial sums—obtained in part by leveraging property owned by the monastery—to expand the Easeamine line. Carmel Labs retained experienced cosmetic industry professionals as well as a contract manufacturer and a branding and public relations firm to assist in creating and marketing a full Easeamine product line, with an anticipated release date in fall of 2010.

#### **DEFENDANTS' USE OF PLAINTIFFS' PATENTED TECHNOLOGY**

18. Defendants comprise one of the world's largest cosmetic companies. Defendants manufacture and sell products such as hair care, skin care, make-up and perfume all over the world.

19. Defendants have been aware of Plaintiffs' adenosine technology and the patents-in-suit since at least 2002.

20. For example, in U.S. Patent Application No. 10/701,495 (“Method for Softening Lines and Relaxing the Skin with Adenosine and Adenosine Analogues”), filed by L’Oréal on November 6, 2003, and as a provisional application on December 12, 2002, L’Oréal stated that “it has been suggested, in U.S. Pat. No. 6,423,327 [i.e., the ’327 patent] and US-2003/044439 [i.e., the application that issued the ’513 patent], that adenosine or an analogue of adenosine can be used in a composition that is topically applied to the skin to improve skin condition.” *See* Exhibit 3 at 2 (attached).

21. L’Oréal later abandoned U.S. Patent Application No. 10/701,495 after it was rejected for, among other reasons, being obvious over the ’327 patent. *See* Exhibit 4 at 4 (attached).

22. L’Oréal has also cited the patents-in-suit in its own issued patents numerous times. For example, L’Oréal cited the ’327 and ’513 patents in its U.S. Patents Nos. 9,018,177, 9,023,826, 9,072,919, and 9,107,853. *See* Exhibits 7, 8, 9, and 10 (attached).

23. In fall of 2003, an agent of both Defendants contacted Dr. Dobson to discuss the patents-in-suit. Defendants, however, did not obtain a license to the patents-in-suit.

24. Nonetheless, after speaking to Dr. Dobson, and with full knowledge of the technology exclusively licensed to Carmel Labs, Defendants began creating, marketing, and selling cosmetic products using the patented adenosine technology.

25. On October 15, 2010, two weeks before the launch of Plaintiffs’ expanded Easeamine product line, Defendants publicly announced their new Youth Code line of anti-aging skin care, promoting its use of “adenosine, a molecule that is found in skin cells that acts at the dermis level to produce collagen.” *See* Exhibit 5 (attached).

26. Defendants tout the benefits of adenosine on their brand’s website as well, stating:

Adenosine is the nucleoside that is most commonly associated with the body's energy-transferring processes. It is present in adenosine triphosphate (ATP), an essential biological and chemical signaling molecule. Due to its high-biological profile, adenosine uses in skincare have grabbed the attention of cosmetic companies. As a result, studies have shown the use of adenosine for skin can be an effective method for providing anti-aging benefits. When applied topically, adenosine-containing products showed significant improvements in the visible signs of aging as well as improving skin smoothness. For this reason, adenosine can most commonly be found in moisturizing skincare products such as creams or serums. *See* Exhibit 6 at 5 (attached).

27. Defendants cite a 2006 article entitled "Evaluation of anti-wrinkle efficacy of adenosine-containing products using the FOITS technique," to support that proposition on their website, although the article significantly post-dates the patents-in-suit. *See id.*

28. Carmel Labs launched the expanded and enlarged Easeamine line on November 1, 2010. Due to public focus on Defendants' adenosine products, projected sales of Easeamine did not materialize, resulting in lost revenue to Carmel Labs, and ultimately, to Teresian Carmelites.

29. Teresian Carmelites' plummeting funds left it unable to pay the monastery's mortgage, and to lapse payments on obligations it undertook to finance the launch of Easeamine. Teresian Carmelites was forced to sell off certain properties it owned to prevent foreclosure on the monastery, and was unable to maintain health insurance for its members. The monastery was unable to use the projected Easeamine profits to fund its charitable works, including efforts to benefit the underprivileged through educational and outreach programs.

30. In March 2015, Brother Dennis Wyrzykowski, President of Teresian Carmelites and Carmel Labs, sent a letter to Jean-Paul Agon, CEO of L'Oréal, stating his belief that Defendants' products infringe the patents-in-suit, and affirming that Carmel Labs is the exclusive licensee of the patents-in-suit.

31. As indicated by product literature including ingredient lists available on Defendants' brand's websites, a vast array of topical skincare products manufactured and sold by Defendants use the adenosine technology exclusively licensed to Carmel Labs (the "Accused Adenosine Products"). On information and belief, Defendants' Accused Adenosine Products include, but are not limited to, the following brands with products containing adenosine: Biotherm; The Body Shop; Carita; Decleor; Garnier; Giorgio Armani; Helena Rubinstein; IT Cosmetics; Kiehl's; L'Oréal Paris; La Roche-Posay; Lancôme; Maybelline; Roger&Gallet; Sanoflore; Shu Uemura; Vichy; and Yves Saint Laurent.

32. On information and belief, Defendants both create and design the Accused Adenosine Products.

33. On information and belief, L'Oréal USA manufactures, markets, and sells the Accused Adenosine Products across the United States, including in Delaware. L'Oréal USA's activities are controlled by its parent, L'Oréal.

34. On information and belief, Defendants direct their customers to apply the Accused Adenosine Products topically, intending the Accused Adenosine Products to enhance their customers' skin condition using the methods claimed in the patents-in-suit. The Accused Adenosine Products include, for example, L'Oréal Paris' RevitaLift Triple Power Deep-Acting Moisturizer, which Defendants instruct their customers to "Every morning and evening, smooth over the face, neck and jawline until thoroughly absorbed[,] *see* Exhibit 11 (attached), stating, "L'Oréal Paris RevitaLift presents the next generation of skincare, RevitaLift Triple Power Deep-Acting Moisturizer. This powerful, luxurious moisturizer goes beyond a simple anti-aging cream to address 3 dimensions that visibly age skin: 1. Repair Wrinkles. 2. Refirm Contours. 3.

Redensify Skin. . . . In 1 week, skin's texture appears smoother. In 4 weeks, elasticity is increased and skin looks younger, firmer and lifted[,]" *see* Exhibit 12 at 6 (attached).

## COUNT I

### **INFRINGEMENT OF U.S. PATENT NO. 6,423,327**

35. Plaintiffs incorporate by reference Paragraphs 1 through 34 above.

36. On July 23, 2002, the '327 patent was duly and legally issued for an invention entitled "Treatment of Skin with Adenosine or Adenosine Analog." UMass is the assignee of the '327 patent and Carmel Labs is the exclusive licensee. Together, they hold all rights and interest in the '327 patent.

37. As discussed above, Defendants have infringed and continue to infringe at least claims 1 and 9 of the '327 patent in violation of 35 U.S.C. § 271, directly and/or indirectly by at least making, using, selling, and/or offering to sell the Accused Adenosine Products within the United States, and/or by contributing to or inducing infringement by others with the intent to cause infringement of the '327 patent.

38. On information and belief, use of one or more of the Accused Adenosine Products constitutes direct infringement of claim 1 of the '327 patent, as such use involves "[a] method for enhancing the condition of unbroken skin of a mammal by reducing one or more of wrinkling, roughness, dryness, or laxity of the skin, without increasing dermal cell proliferation, the method comprising topically applying to the skin a composition comprising a concentration of adenosine in an amount effective to enhance the condition of the skin without increasing dermal cell proliferation, wherein the adenosine concentration applied to the dermal cells is  $10^{-4}$  M to  $10^{-7}$ ."



39. On information and belief, use of one or more of the Accused Adenosine Products constitutes direct infringement of claim 9 of the '327 patent, as such use includes a "composition [that] further comprises a transdermal agent."

40. Where acts constituting direct infringement of the '327 patent are not performed by Defendants, such acts constituting direct infringement of the '327 patent are performed by Defendants' customers or end-users who act at the direction and/or control of Defendants, with Defendants' knowledge.

41. By as early as 2002 and at least as of the filing or service of this Complaint, Defendants had actual knowledge of the '327 patent.

42. On information and belief, Defendants indirectly infringe one or more claims of the '327 patent by active inducement in violation of 35 U.S.C. § 271(b), by making, selling and/or offering to sell the Accused Adenosine Products to their customers with the knowledge and intent that use of the Accused Adenosine Products would constitute direct infringement of the '327 patent by Defendants' customers.

43. On information and belief, Defendants also indirectly infringe one or more claims of the '327 patent by contributory infringement in violation of 35 U.S.C. § 271(c). The Accused Adenosine Products were designed by Defendants and with Defendants' knowledge in a manner that would infringe the '327 patent. Moreover, the Accused Adenosine Products have no known substantial non-infringing use, and the infringing use of the Accused Adenosine Products is a material and substantial part of the invention claimed by the '327 patent.

44. Defendants' acts of infringement have caused monetarily damage and irreparable harm to Plaintiffs, and Plaintiffs are entitled to recover from Defendants the damages sustained by Plaintiffs as a result of Defendants' wrongful acts in an amount subject to proof at trial.

## COUNT II

### **INFRINGEMENT OF U.S. PATENT NO. 6,645,513**

45. Plaintiffs incorporate by reference Paragraphs 1 through 44 above.

46. On November 11, 2003, the '513 patent was duly and legally issued for an invention entitled "Treatment of Skin with Adenosine or Adenosine Analog." UMass is the assignee of the '513 patent and Carmel Labs is the exclusive licensee. Together, they hold all rights and interest in the '513 patent.

47. As discussed above, Defendants have infringed and continue to infringe at least claims 1 and 9 of the '513 patent in violation of 35 U.S.C. § 271, directly and/or indirectly by at least making, using, selling, and/or offering to sell the Accused Adenosine Products within the United States, and/or by contributing to or inducing infringement by others with the intent to cause infringement of the '513 patent.

48. On information and belief, use of one or more of the Accused Adenosine Products constitutes direct infringement of claim 1 of the '513 patent, as such use involves "[a] method for enhancing the condition of unbroken skin of a mammal by reducing one or more of wrinkling, roughness, dryness, or laxity of the skin, without increasing dermal cell proliferation, the method comprising topically applying to the skin a composition comprising a concentration of adenosine in an amount effective to enhance the condition of the skin without increasing dermal cell proliferation, wherein the adenosine concentration applied to the dermal cells is  $10^{-3}$  M to  $10^{-7}$ ."

49. On information and belief, use of one or more of the Accused Adenosine Products constitutes direct infringement of claim 9 of the '513 patent, as such use includes a "composition [that] further comprises a transdermal agent."

50. Where acts constituting direct infringement of claims 1 and 9 of the '513 patent are not performed by Defendants, such acts constituting direct infringement of the '513 patent are performed by Defendants' customers or end-users who act at the direction and/or control of Defendants, with Defendants' knowledge.

51. By as early as 2002 and at least as of the filing or service of this Complaint, Defendants had actual knowledge of the '513 patent.

52. On information and belief, Defendants indirectly infringe one or more claims of the '513 patent by active inducement in violation of 35 U.S.C. § 271(b), by making, selling and/or offering to sell the Accused Adenosine Products to their customers with the knowledge and intent that use of the Accused Adenosine Products would constitute direct infringement of the '513 patent by Defendants' customers.

53. On information and belief, Defendants also indirectly infringe one or more claims of the '513 patent by contributory infringement in violation of 35 U.S.C. § 271(c). The Accused Adenosine Products were designed by Defendants and with Defendants' knowledge in a manner that would infringe the '513 patent. Moreover, the Accused Adenosine Products have no known substantial non-infringing use, and the infringing use of the Accused Adenosine Products is a material and substantial part of the invention claimed by the '513 patent.

54. Defendants' acts of infringement have caused monetarily damage and irreparable harm to Plaintiffs, and Plaintiffs are entitled to recover from Defendants the damages sustained by Plaintiffs as a result of Defendants' wrongful acts in an amount subject to proof at trial.

#### **WILLFUL INFRINGEMENT**

55. Plaintiffs incorporate by reference Paragraphs 1 through 54 above.

56. Defendants' infringement of any or all of the above-named patents is willful and deliberate, entitling Plaintiffs to increased damages under 35 U.S.C. § 284 and to attorney's fees and costs incurred in prosecuting this action pursuant to 35 U.S.C. § 285.

57. After speaking to Dr. Dobson about the patents-in-suit, and after abandoning L'Oréal's own patent application as rendered obvious by the patents-in-suit, Defendants nonetheless launched their own infringing product lines, including the Accused Adenosine Products.

58. Defendants have infringed and continue to infringe the patents-in-suit despite the objectively high likelihood that their actions constitute patent infringement.

**JURY DEMAND**

59. Plaintiffs demand a trial by jury on all issues.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL and CARMEL LABORATORIES, LLC request entry of judgment in their favor and against Defendants L'ORÉAL S.A. and L'ORÉAL USA, INC. as follows:

- a) Declaration that Defendants have infringed U.S. Patents Nos. 6,423,327 and 6,645,513;
- b) Declaration that Defendants' infringement has been willful;
- c) Awarding damages arising out of Defendants' infringement of U.S. Patents Nos. 6,423,327 and 6,645,513, including enhanced damages pursuant to 35 U.S.C. § 284, to Plaintiffs together with prejudgment and post-judgment interest, in an amount according to proof;
- d) A permanent injunction enjoining Defendants from further infringing U.S. Patents Nos. 6,423,327 and 6,645,513.

e) An award of attorney's fees pursuant to 35 U.S.C. § 285 or as otherwise permitted by law; and

f) For such other costs and further relief as the Court may deem just and proper.

DATED: August 18, 2017

Respectfully submitted,

FARNAN LLP

/s/ Brian E. Farnan

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