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UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

IMMUNEX CORPORATION, Plaintiff, v. SANOFI; SANOFI-AVENTIS U.S. LLC; GENZYME CORPORATION; AVENTISUB LLC; and REGENERON PHARMACEUTICALS, INC., Defendants.	Case No. 2:17-cv-02613 **COMPLAINT FOR PATENT INFRINGEMENT AND DECLARATORY JUDGMENT OF PATENT INFRINGEMENT** **DEMAND FOR JURY TRIAL**

Plaintiff Immunex Corporation ("Immunex"), by and through its undersigned attorneys, for its Complaint against Defendants Sanofi; Sanofi-Aventis U.S. LLC; Genzyme Corporation; Aventisub LLC, formerly doing business as Aventis Pharmaceuticals Inc.; and Regeneron Pharmaceuticals, Inc. (collectively, "Defendants"), alleges as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement and for a declaratory judgment of patent infringement of Immunex's United States Patent No. 8,679,487 (the "'487 Patent"). This action relates to Defendants' manufacture, use, sale, offer to sell within the United States, and/or importation to the United States, of Defendants' anti-interleukin-4-receptor-alpha (hereinafter, "IL-4R") antibody, developed under the compound name "dupilumab" and marketed under the trade name Dupixent®, for the treatment of atopic dermatitis and other atopic or allergic disorders.

THE PARTIES

2. Plaintiff Immunex is a corporation organized and existing under the laws of the State of Washington with its principal place of business at One Amgen Center Drive, Thousand Oaks, California 91320.

3. Immunex is a biopharmaceutical company committed to developing immune system science to protect human health. Since its founding in 1981, Immunex has worked to discover new targets and new therapeutics for treating cancer, infectious diseases, and autoimmune disorders. Immunex scientists were early pioneers in the field of biotechnology products for the treatment of inflammation, including Enbrel® (etanercept). In July 2002, Amgen Inc. ("Amgen") acquired Immunex, and Immunex became a wholly-owned subsidiary of Amgen.

4. Upon information and belief, Defendant Sanofi ("Sanofi") is a company organized under the laws of France with its principal headquarters at 54 rue La Boétie, 75008 Paris, France.

5. Upon information and belief, Defendant Sanofi-Aventis U.S. LLC ("Sanofi U.S.") is a company organized under the laws of the State of Delaware with its principal place of business at 55 Corporate Drive, Bridgewater, New Jersey 08807.

6. Upon information and belief, Defendant Genzyme Corporation ("Genzyme") is a company organized under the laws of the Commonwealth of Massachusetts with its principal

place of business at 500 Kendall Street, Cambridge, Massachusetts 02142.

7. Upon information and belief, Defendant Aventisub LLC ("Aventisub") is a company organized under the laws of the State of Delaware having its principal place of business at 3711 Kennett Pike, Suite 200, Greenville, Delaware 19807. Upon information and belief, Aventisub is the surviving entity from a June 2014 merger involving Aventis Pharmaceuticals Inc. (*see* Certificate of Merger attached as Exhibit A hereto) and has assumed the assets, liabilities, and/or responsibilities of Aventis Pharmaceuticals Inc. Upon information and belief, Aventis Pharmaceuticals Inc. was a corporation organized under the laws of the State of Delaware having a principal place of business at 55 Corporate Drive, Bridgewater, New Jersey 08807. Upon information and belief, the sole member of Aventisub is Aventis Inc., which operates as a subsidiary of Sanofi. This complaint refers to Aventisub and Aventis Pharmaceuticals Inc. collectively as "Aventis."

8. Upon information and belief, Sanofi U.S. is a wholly owned subsidiary of Defendant Sanofi.

9. Upon information and belief, Genzyme is a wholly owned subsidiary of Defendant Sanofi.

10. Upon information and belief, Aventis is an indirect wholly owned subsidiary of Defendant Sanofi.

11. This complaint refers to Sanofi, Sanofi U.S., Genzyme, and Aventis collectively as "Sanofi Group."

12. Upon information and belief, Defendant Regeneron Pharmaceuticals, Inc. ("Regeneron") is a corporation organized under the laws of the State of New York with its principal place of business at 777 Old Saw Mill River Road, Tarrytown, New York 10591-6707.

JURISDICTION AND VENUE

13. This civil action for patent infringement arises under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq.*, and under the Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*

14. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331, 1338(a), 2201, and 2202.

15. This Court has personal jurisdiction over Defendants at least by virtue of the fact that Defendants conduct business in the State of California, have availed themselves of the rights and benefits under California law, and have engaged in substantial and continuous contacts in the State of California.

16. Upon information and belief, Sanofi is in the business of developing, formulating, manufacturing, marketing, and selling pharmaceutical drug products, including antibody products. Upon information and belief, Sanofi, directly or indirectly through its affiliates and agents, including but not limited to Sanofi U.S., Genzyme, and Aventis, markets and sells pharmaceutical products throughout the United States, including in this judicial district. Upon information and belief, Sanofi U.S. has availed itself of this forum by filing suit in the Central District of California, including, for example, *Sanofi-Aventis U.S. LLC and Regeneron Pharmaceuticals, Inc. v. Genentech, Inc., and City of Hope*, 2:15-cv-05685 (C.D. Cal.), filed July 27, 2015; *Sanofi-Aventis U.S. LLC v. Safety Syringes, Inc.*, No. 2:08-cv-00928 (C.D. Cal.), filed February 11, 2008; and *Sanofi-Aventis U.S. v. Pharmachemie*, No. 8:07-cv-00784 (C.D. Cal.), filed July 9, 2007. Upon information and belief, Genzyme has availed itself of this forum by filing suit in the Central District of California, including, for example, *Genzyme Corporation v. Genentech, Inc.*, 2:15-cv-09991-GW-AGR (C.D. Cal.), filed December 30, 2015; and *Genzyme Corporation v. Biomedical Patent*, 2:98-cv-02446-CM-AJW (C.D. Cal.), filed April 2, 1998.

17. Upon information and belief, Sanofi U.S. is registered with the California State Board of Pharmacy as a licensed pharmacy wholesale drug distributor.

18. Upon information and belief, Sanofi has directed or authorized the infringing activities of Sanofi U.S., Genzyme, and Aventis, such that the infringing conduct by Sanofi U.S., Genzyme, and Aventis is attributable to Sanofi. Upon information and belief, the Sanofi Group defendants were at all times relevant the partners, officers, agents, assignees, successors-in-interest, co-conspirators, principals, alter egos, or employees of each other or were otherwise responsible for, contributed to, or participated in the acts of infringement alleged herein, and thereby incurred liability therefore. For example, as detailed further in paragraphs 30-33, *infra*, the license and collaboration agreements between Aventis and Regeneron state that Aventis is a

wholly owned subsidiary of Sanofi, which is a statement that Sanofi exercises dominion and control over Aventis.

19. Upon information and belief, Regeneron is registered as a foreign corporation to conduct business in the State of California. As indicated by the California Secretary of State's database, Regeneron has designated an agent for service of process in the State of California, and in 2016 Regeneron filed a Statement of Information with the California Secretary of State.

20. Upon information and belief, Regeneron is in the business of manufacturing, marketing, importing, and selling pharmaceutical drug and biologic products, including antibody products. Upon information and belief, Regeneron, directly or indirectly through its affiliates and agents including Sanofi Group, currently markets and sells pharmaceutical drug and biologics products throughout the United States, including in this judicial district. Upon information and belief, Regeneron has availed itself of this forum by filing suit in the Central District of California, including, for example, *Sanofi-Aventis U.S. LLC and Regeneron Pharmaceuticals, Inc. v. Genentech, Inc., and City of Hope*, 2:15-cv-05685 (C.D. Cal.), filed July 27, 2015.

21. Upon information and belief, and consistent with their past practices, Defendants currently are working in concert with one another to make, use, offer to sell, and/or sell Dupixent throughout the United States, and/or import Dupixent into the United States, including in this judicial district.

22. For these reasons, and for other reasons that will be presented to the court if jurisdiction is challenged, the Court has personal jurisdiction over Defendants.

23. Venue is proper in this District and before this Court pursuant to 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b) because the events or omissions that give rise to this action occurred in this District and Defendants are subject to personal jurisdiction in California and are deemed to reside in this judicial district. Further, Defendants have committed acts of infringement in this District and have a regular and established place of business in this District.

THE PATENT-IN-SUIT

24. On March 25, 2014, United States Patent No. 8,679,487 entitled "Anti-Interleukin-4 Receptor Antibodies" issued to Immunex as assignee of the named inventors Richard J.

Armitage, Jose Carlos Escobar, and Arvia E. Morris. A copy of the '487 Patent is attached as Exhibit B.

25. The '487 Patent has been owned by Immunex at all times, is fully maintained, and is valid and enforceable.

26. The claims of the '487 Patent are directed to human antibodies that bind to human IL-4R. The anti-IL-4R antibodies disclosed in the '487 Patent block the actions of interleukin-4 ("IL-4") and interleukin-13 ("IL-13"), signaling molecules in the immune system that play a role in inflammatory conditions such as allergy, asthma, and dermatitis.

27. The '487 Patent discloses human monoclonal antibodies that bind to human IL-4R and inhibit the activity of IL-4 and IL-13.

28. One such antibody is the human monoclonal antibody designated 12B5. The '487 Patent discloses that the amino acid sequences for the light chain variable region and the heavy chain variable region of the 12B5 antibody are SEQ ID NO:10 and SEQ ID NO:12, respectively. These sequences are presented in the '487 Patent.

29. Claim 1 of the '487 Patent recites "[a]n isolated human antibody that competes with a reference antibody for binding to human IL-4 interleukin-4 (IL-4) receptor, wherein the light chain of said reference antibody comprises the amino acid sequence of SEQ ID NO:10 and the heavy chain of said reference antibody comprises the amino acid sequence of SEQ ID NO:12."

DEFENDANTS' ACTIONS GIVING RISE TO THIS SUIT

A. Sanofi Group and Regeneron's Developed the Anti-IL-4R Antibody Known as Dupilumab Using Immunex's Patented 12B5 Antibody

30. Upon information and belief, since at least November 2007, Sanofi Group and Regeneron have collaborated on the research and development of antibody product candidates for commercial sale in the United States upon FDA licensure. That collaboration was initially governed by a License and Collaboration Agreement executed on November 28, 2007, by Regeneron on the one hand and Aventis Pharmaceuticals Inc. and a third entity, Sanofi Amérique du Nord, on the other. Upon information and belief, Sanofi Amérique du Nord is a partnership organized under the laws of France that was and is responsible for causing Regeneron to be paid

whatever monies are owed to Regeneron under the terms of this agreement. Concurrently with the execution and delivery of that agreement, on November 28, 2007, Regeneron and Aventis Pharmaceuticals Inc. also entered into a Discovery and Preclinical Development Agreement. Upon information and belief, pursuant to these agreements, Regeneron uses its VelocImmune® technology and related technologies to discover product candidates that Sanofi Group may elect to advance into further development.

31. Upon information and belief, on November 10, 2009, Regeneron and Aventis Pharmaceuticals executed an "Amended and Restated License and Collaboration Agreement" setting forth amended terms under which Sanofi Group and Regeneron would jointly develop antibody product candidates. Also upon information and belief, Regeneron, Aventis Pharmaceuticals Inc., and Sanofi Amérique du Nord concurrently executed an "Amended and Restated Discovery and Preclinical Development Agreement."

32. This complaint collectively refers to the 2007 and 2009 agreements referenced in paragraphs 30-31 above as the "2007 and 2009 Agreements."

33. Upon information and belief, the 2007 and 2009 Agreements state that Aventis Pharmaceuticals Inc. (which the agreements abbreviate as "Sanofi") is an indirect, wholly owned subsidiary of Sanofi.

34. Upon information and belief, subsequent to the research efforts that led to Immunex's '487 Patent, Sanofi Group and Regeneron initiated development of a fully human monoclonal antibody product candidate against IL-4R called dupilumab (also called "H4H098P") as a co-developed drug candidate under the 2007 and 2009 Agreements.

35. Upon information and belief, dupilumab is an isolated human antibody that is reported to specifically block the IL-4/IL-13 signaling pathway by binding to IL-4R.

36. Upon information and belief, Regeneron employed Immunex's patented 12B5 antibody in its own attempts to identify therapeutic anti-IL-4R antibodies. U.S. Patent Nos. 7,605,237 (the "'237 patent") and 8,337,839 (the "'839 patent"), assigned to Regeneron, both state that a control antibody used to test the binding of its antibodies was the "fully human anti-IL-4R antibody" with sequences "SEQ ID NOs: 10 and 12" from Immunex's U.S. Patent No. 7,186,809.

37. For example, upon information and belief, Example 2 of Regeneron's '237 patent discloses a real-time biosensor surface plasmon resonance assay (BIAcore™ 2000) to assess the binding affinity of selected human antibodies to human IL-4R that were generated by Regeneron. In that assay, a fully human anti-IL-4R antibody with the same heavy chain and light chain variable region sequences associated with Immunex's 12B5 antibody was used as the control antibody. In addition, Example 6 and Figure 1A of Regeneron's '237 patent disclose a sequential binding assay in which a control antibody with the same heavy chain and light chain variable region sequences associated with Immunex's 12B5 antibody was shown to block binding to human IL-4R by selected human antibodies to human IL-4R.

38. Furthermore, upon information and belief, Example 2 of Regeneron's '839 patent discloses a real-time biosensor surface plasmon resonance assay (BIAcore™ 2000) to assess the binding affinity of selected human antibodies to human IL-4R that were generated by Regeneron. In that assay, a fully human anti-IL-4R antibody with the same heavy chain and light chain variable region sequences associated with Immunex's 12B5 antibody was used as the control antibody. Upon information and belief, this assay includes an antibody with the same heavy chain and light chain variable regions as dupilumab.

39. In addition, upon information and belief, Sanofi, directly or indirectly through its affiliates and agents, directed an outside contractor, Evitria AG, Wagistrasse 25, 8952 Schlieren, Switzerland, to synthesize and purify Immunex's 12B5 antibody.

40. Upon information and belief, Sanofi, directly or indirectly through its affiliates and agents, directed an outside contractor, Syd Labs, Inc., 19 Erie Drive, Natick, MA 01760, to test Immunex's 12B5 antibody for binding to a cell that expresses human IL-4R.

41. Upon information and belief, Defendants have taken the position in opposition proceedings to Immunex's European Patent 2292665 that any antibody that blocks binding of IL-4 to IL-4R also will compete with Immunex's 12B5 antibody for binding to IL-4R.

42. Therefore, upon information and belief, dupilumab is an isolated human antibody that competes with Immunex's 12B5 antibody for binding to human IL-4R, as claimed in Immunex's '487 Patent.

B. Defendants' Infringement of the '487 Patent

43. Upon information and belief, Defendants have pursued the clinical development of dupilumab as a treatment for atopic dermatitis and other atopic or allergic disorders, with the goal of launching it for sale in the United States and worldwide marketplace.

44. Upon information and belief, on or about September 26, 2016, Defendants submitted a Biologics License Application ("BLA") for dupilumab to the United States Food and Drug Administration ("FDA") for Priority Review. Submission of a BLA for approval by FDA is a necessary prerequisite to offering dupilumab for sale in the United States. Upon information and belief, the FDA accepted the BLA for dupilumab with a Prescription Drug User Fee Act target action date of March 29, 2017.

45. Upon information and belief, on March 28, 2017, the FDA approved Defendants' BLA for the use of dupilumab for the treatment of moderate-to-severe atopic dermatitis.

46. Upon information and belief, Defendants have begun marketing and selling dupilumab in the United States under the trade name Dupixent for the treatment of moderate-to-severe atopic dermatitis.

47. Upon information and belief, prior to receiving FDA approval for dupilumab, Defendants began preparing to launch dupilumab for commercial sale in the United States marketplace immediately after FDA approval. Upon information and belief, Sanofi readied a U.S.-based salesforce to sell and offer to sell dupilumab in the domestic marketplace. Also upon information and belief, Defendants began manufacturing dupilumab for commercial sale in the United States.

48. Upon information and belief, Regeneron's Executive Vice President, Commercial, Robert J. Terifay, informed the investing public on February 9, 2017, "Sanofi Genzyme and Regeneron have fully hired and trained our field teams. At [dupilumab's] launch, our field teams will call on 4,500 dermatologists and 1,200 allergists who currently prescribe biologic therapies."

49. Upon information and belief, Mr. Terifay also informed the investing public that Defendants "have been working with payers to ensure that . . . patients have access to treatment. . .

. In anticipation of early demand, we have established a Reimbursement Access Services and Patient Support Center, which will be ready to help patients from day one of launch."

50. Upon information and belief, Defendants issued a press release on March 28, 2017, stating that "Regeneron and Sanofi Genzyme . . . will market DUPIXENT in the United States. DUPIXENT is expected to be available to patients and providers in the U.S. later this week." *See* http://files.shareholder.com/downloads/REGN/3400135989x8317232x935017/C77088C3-EF5A-4BCE-8FB5-CC3690257058/REGN_News_2017_3_28_General_Releases.pdf. The same press release states that "[t]he Wholesale Acquisition Cost (WAC) of DUPIXENT in the United States is $37,000 annually." *See id*.

51. Upon information and belief, the website www.dupixent.com states that Dupixent is "Now Available."

52. Upon information and belief, Reuters has reported that "[dupilumab] will be sold as Dupixent and consensus analyst forecasts already point to annual sales of more than $4 billion by 2022, according to Thomson Reuters data." *See* http://www.nasdaq.com/article/interviewsanofi-rd-head-flags-new-eczema-drug-as-start-of-something-big-20170306-00610#/ixzz4aet3uipM.

53. In sum, Defendants have engaged in the manufacture, use, sale, offering for sale, and/or importation of Dupixent in the United States prior to the expiration of Immunex's '487 Patent. Upon information and belief, Defendants intend to continue to engage in this course of conduct throughout the United States, including in this judicial district.

54. Upon information and belief, Defendants have knowledge of the '487 Patent. On March 20, 2017, Sanofi-Aventis U.S. LLC, Genzyme, and Regeneron filed a complaint in the U.S. District Court for the District of Massachusetts seeking a declaratory judgment that the development, manufacturing, sale, and promotion of Dupixent do not infringe the '487 Patent.

55. Upon information and belief, Defendants had knowledge of the '487 patent family long before filing their declaratory judgment action. As discussed above, Regeneron employed the 12B5 antibody disclosed in the '487 Patent in its own attempts to identify therapeutic anti-IL-4R antibodies. In addition, Regeneron and Sanofi had knowledge of the '487 Patent through their

continued participation in European Patent Office opposition proceedings with respect to Immunex's European Patent No. 2 292 665. European Patent No. 2 292 665 claims priority to U.S. Application No. 09/847,816. The '487 Patent claims priority to this same application. Accordingly, upon information and belief, Defendants have infringed the '487 Patent with knowledge of the patent, and therefore Defendants' infringement has been and continues to be willful and deliberate.

56. Immunex has suffered and will continue to suffer damages as a result of Defendants' infringing activities.

FIRST CAUSE OF ACTION

(Infringement of the '487 Patent)

57. Immunex realleges and incorporates by reference each of the allegations contained in Paragraphs 1-56 as if fully set forth herein.

58. On information and belief, Defendants have infringed the '487 Patent, pursuant to 35 U.S.C. § 271(a), (b), or (c), by engaging in the commercial manufacture, use, offering for sale, sale, or importation of Dupixent in the United States prior to the expiration of the '487 Patent, including any extensions.

59. As a result of Defendants' infringement of the '487 Patent, Immunex has been damaged and will be further damaged, and is entitled to recover damages as set forth in 35 U.S.C. § 284 in such amount as may be established at trial of this action, including enhanced damages.

60. This case is exceptional and Immunex is entitled to an award of attorney fees under 35 U.S.C. § 285.

SECOND CAUSE OF ACTION

(Declaratory Judgment of Infringement of the '487 Patent)

61. Immunex realleges and incorporates by reference each of the allegations contained in Paragraphs 1-60 as if fully set forth herein.

62. On information and belief, the approval of Dupixent by the FDA and Defendants'

sale or intent to sell Dupixent in the United States create an actual, immediate, and real controversy within the Declaratory Judgment Act that Defendants will directly or indirectly infringe valid and enforceable claims of the '487 Patent, pursuant to 35 U.S.C. § 271(a), (b), or (c), by engaging in the commercial manufacture, use, offering for sale, sale, or importation of Dupixent prior to the expiration of the '487 Patent, including any extensions.

63. A judicial declaration of infringement is necessary and appropriate to resolve this controversy.

64. As a result of Defendants' infringement of the '487 Patent, Immunex will be damaged and is entitled to recover damages as set forth in 35 U.S.C. § 284 in such amount as may be established at trial of this action, including enhanced damages.

65. This case is exceptional and Immunex is entitled to an award of attorney fees under 35 U.S.C. § 285.

PRAYER FOR RELIEF

WHEREFORE, Immunex prays for judgment against Defendants Sanofi; Sanofi-Aventis U.S. LLC; Genzyme Corporation; Aventisub LLC, formerly doing business as Aventis Pharmaceuticals Inc.; and Regeneron Pharmaceuticals, Inc., and respectfully requests the following relief:

A. A judgment that Defendants have infringed and will infringe the '487 Patent under 35 U.S.C. § 271, by the commercial manufacture, use, offer to sell, or sale in the United States and/or importation or distribution into the United States, of Dupixent prior to the expiration of the '487 Patent;

B. To the extent that Defendants have already begun or will continue to commercially manufacture, use, offer to sell, or sell Dupixent within the United States, or import Dupixent into the United States, prior to the expiration of any of the '487 Patent, including any extensions, a judgment awarding Immunex monetary relief together with interest;

C. An order that Defendants' infringement is and has been willful and/or an order increasing damages under 35 U.S.C. § 284.

D. A judgment that this is an exceptional case and that Immunex be awarded its attorney fees incurred in this action pursuant to 35 U.S.C. § 285;

E. Costs and expenses in this action; and

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

JURY DEMAND

Immunex hereby demands a jury trial on all issues appropriately triable by a jury.

DATED: April 5, 2017

MUNGER, TOLLES & OLSON LLP

By: /s/ *Gregory P. Stone*
Gregory P. Stone

Attorney for Plaintiff Immunex Corporation