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and Amgen Manufacturing Limited

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY

AMGEN INC. and AMGEN MANUFACTURING LIMITED, Plaintiffs, v. ADELLO BIOLOGICS, LLC, Defendant.	Civil Action No. _____ **JURY TRIAL DEMANDED** ***Electronically Filed***

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiffs Amgen Inc. and Amgen Manufacturing Limited (collectively, "Plaintiffs"), by and through their undersigned attorneys, for their Complaint against Defendant Adello Biologics, LLC ("Adello") hereby allege as follows:

THE PARTIES

1. Amgen Inc. ("Amgen") is a corporation existing under the laws of the State of Delaware, with its principal place of business at One Amgen Center Drive, Thousand Oaks,

California 91320. Amgen discovers, develops, manufactures, and sells innovative therapeutic products based on advances in molecular biology, recombinant DNA technology, and chemistry. Founded in 1980, Amgen is a pioneer in the development of biological human therapeutics. Today, Amgen is one of the largest biotechnology companies in the world, fueled in part by the success of its NEUPOGEN® (filgrastim) biological drug product.

2. Amgen Manufacturing Limited ("AML") is a corporation existing under the laws of the Territory of Bermuda with its principal place of business at Road 31 km 24.6, Juncos, Puerto Rico 00777. AML manufactures and sells biologic medicines for treating particular diseases in humans. AML is a wholly owned subsidiary of Amgen.

3. Upon information and belief, Adello is a corporation organized and existing under the laws of Delaware and registered to do business in New Jersey. Upon information and belief, Adello has its principal place of business in New Jersey, with its headquarters and research and development laboratory located at 20 New England Avenue, Piscataway, New Jersey. Upon information and belief, Adello is in the business of developing, manufacturing, and marketing biopharmaceutical products that are distributed and sold in the state of New Jersey and throughout the United States.

4. Upon information and belief, Adello develops, manufactures, and seeks regulatory approval for importing, marketing, distributing, and selling biopharmaceutical products (including products intended to be sold as biosimilar versions of successful biopharmaceutical products developed by others) in the state of New Jersey and throughout the United States.

NATURE OF THE ACTION

5. This is an action for patent infringement arising under the patent laws of the United States, Titles 35 and 42 of the United States Code, including the Biologics Price Competition and Innovation Act of 2009 ("the BPCIA"), Pub. L. No. 111-148, §§ 7001-7003, 124 Stat. 119, 804-21

(2010) (amending, *inter alia*, 35 U.S.C. § 271 and 42 U.S.C. § 262), and the Declaratory Judgment Act of 1934 (28 U.S.C. §§ 2201-2202)

6. The asserted patents are U.S. Patent Nos. 6,180,391, 7,083,948, 7,118,884, 7,384,765, 7,427,659, 7,662,930, 7,735,525, 7,781,395, 8,191,566, 8,273,707, 8,940,878, 8,952,138, 9,418,416, 9,632,095, 9,643,997, 9,704,239, and 9,856,287 (collectively, the "Asserted Patents"). Amgen is the owner of all rights, title, and interest in the Asserted Patents. AML has an exclusive license to the Asserted Patents. The Asserted Patents claim inventions useful in the manufacture of biological pharmaceutical products.

7. The BPCIA created an abbreviated pathway for the approval of biosimilar versions of approved biologic drugs. 42 U.S.C. § 262(k). The abbreviated pathway (also known as the "subsection (k) pathway") allows a biosimilar applicant (here, Adello) to rely on the prior licensure and approval status of the innovative biological product (here, NEUPOGEN®) that the biosimilar purports to copy. Amgen is the sponsor of the reference product ("reference product sponsor" or "RPS"), NEUPOGEN®, which is approved by the U.S. Food and Drug Administration ("FDA") for, among other things, decreasing the incidence of infection in patients receiving myelosuppressive anti-cancer drugs. Under the subsection (k) pathway, the biosimilar applicant may rely on its reference product's data rather than demonstrating that its biosimilar product is safe, pure, and potent, as Amgen was required to do to obtain FDA licensure of NEUPOGEN® under 42 U.S.C. § 262(a).

8. To avoid burdening the courts and parties with unnecessary disputes, the BPCIA also creates an intricate and carefully orchestrated set of procedures for the biosimilar applicant and the RPS to engage in a series of information exchanges and good-faith negotiations between

parties prior to the filing of a patent infringement lawsuit. These exchanges are set forth in 42 U.S.C. § 262(*l*)(2)-(*l*)(5).

9. Under this framework, the BPCIA contemplates that the subsection (k) applicant ("applicant") will provide the RPS with its abbreviated Biologics License Application ("aBLA") and manufacturing information under 42 U.S.C. § 262(*l*)(2). Under 42 U.S.C. § 262(*l*)(3)(A), not later than 60 days after the receipt of the application and information under § 262(*l*)(2), the RPS shall provide the applicant with a list of patents for which the RPS believes a claim of patent infringement could reasonably be asserted by the RPS, or by a patent owner that has granted an exclusive license to the RPS with respect to the reference product, if a person not licensed by the RPS engaged in the making, using, offering to sell, selling, or importing into the United States of the biological product that is the subject of the subsection (k) application. Then, under 42 U.S.C. § 262(*l*)(3)(B), the applicant may provide to the RPS a list of patents that it believes a claim of patent infringement could reasonably be asserted by the RPS and a detailed statement that describes, on a claim by claim basis, the factual and legal basis of the applicant's opinion that such patent is invalid, unenforceable, or will not be infringed by the commercial marketing of the biological product that is the subject of the subsection (k) application, 42 U.S.C. § 262(*l*)(3)(B)(ii)(I), or a statement that the applicant does not intend to begin commercial marketing until such patent expires, § 262(*l*)(3)(B)(ii)(II). Under 42 U.S.C. § 262(*l*)(3)(C), for each patent that the applicant identifies on its list under § 262(*l*)(3)(B)(ii)(I), the RPS shall provide to the applicant a detailed statement that describes, on a claim by claim basis, the factual and legal basis of the RPS's opinion that such patent will be infringed by the commercial marketing of the applicant's biological product and a response to the statement concerning validity and enforceability provided under § 262(*l*)(3)(B)(ii)(I).

10. If the parties reach agreement on which patents from these lists to litigate in an infringement action, *see* 42 U.S.C. § 262(*l*)(4)(A), the BPCIA process culminates in an "immediate patent infringement action" pursuant to 42 U.S.C. § 262(*l*)(6). If, however, the parties fail to agree on which patents to litigate, *see* 42 U.S.C. § 262(*l*)(4)(B), the BPCIA calls for each party to simultaneously exchange lists of patents that it believes should be the subject of the litigation under 42 U.S.C. § 262(*l*)(5) and allows the RPS to bring an infringement action for each patent included on such lists under 42 U.S.C. § 262(*l*)(6)(B).

11. In addition, an applicant must provide notice of commercial marketing to the RPS not later than 180 days before the date of the first commercial marketing of its biosimilar product under 42 U.S.C. § 262(*l*)(8)(A).

12. By letter dated September 11, 2017 (the "September 11, 2017 Letter"), Adello purported to provide notice, pursuant to 42 U.S.C. § 262(*l*)(8)(A), of its intent to commercially market a proposed biosimilar to NEUPOGEN® ("the Adello Filgrastim Product") "upon receiving FDA approval and no earlier than 180 days from [September 11, 2017]." *See* 42 U.S.C. § 262(k) (section 351K of the Public Health Services Act). The September 11, 2017 Letter informed Amgen that Adello took advantage of the abbreviated subsection (k) pathway in submitting its aBLA[1] ("the Adello aBLA"). Adello thus sought the benefits of the subsection (k) pathway under the BPCIA when it submitted the Adello aBLA to the FDA requesting that the Adello Filgrastim Product be licensed by relying on Amgen's demonstration that NEUPOGEN® (filgrastim) is "safe, pure, and potent." *See* 42 U.S.C. § 262(k).

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[1] The September 11, 2017 Letter purports to provide the application number for the Adello aBLA, but the number provided, BLA No. 103353, is actually the number for Amgen's Biologics License Application NEUPOGEN® (filgrastim).

13. The September 11, 2017 Letter further stated that Adello "is not required to and does not intend to provide Amgen with [the Adello aBLA] or manufacturing information contemplated by 42 U.S.C. § 262(*l*)(2)(A)." Adello thus refused to provide its aBLA and manufacturing information to Amgen as contemplated by the BPCIA despite the fact that Adello has taken advantage of the BPCIA's abbreviated subsection (k) pathway, which allows Adello to rely on the data Amgen submitted to the FDA as part of Amgen's Biologic License Application ("BLA") for NEUPOGEN® (filgrastim). *See* Press Release, *Business Wire*, "FDA Accepts Adello's Biosimilar License Application (BLA) for a Proposed Filgrastim Biosimilar," Sept. 11, 2017, http://www.businesswire.com/news/home/20170911005971/en ("Adello Press Release"), attached hereto as Exhibit 1; Adello Biologics, Sept. 11, 2017, http://adellobio.com/news/2017/fda-accepts-adellos-biosimilar-biologics-license-application-bla-for-a-proposed-filgrastim-biosimilar (providing link from Adello's corporate website to the Adello Press Release on *Business Wire*).

14. Upon information and belief, had Adello provided Amgen with its aBLA as contemplated by 42 U.S.C. § 262(*l*)(2)(A), the Asserted Patents could have been identified under 42 U.S.C. § 262(*l*)(3)(A).

15. Upon information and belief, Adello submitted the Adello aBLA to the FDA prior to September 11, 2017, and thus before the expiration of the Asserted Patents.

16. Upon information and belief, Adello received FDA acceptance of the Adello aBLA for review prior to September 11, 2017.

17. 35 U.S.C. § 271(e)(2)(C)(ii) provides that it is an act of infringement to submit a biosimilar application to the FDA with respect to any patent that could have been included on the lists of patents described in 42 U.S.C. § 262(*l*)(3)(A) if the purpose of such application is to obtain

approval to engage in the commercial manufacture, use, or sale of a biological product claimed in a patent or the use of which is claimed in a patent before the expiration of such patent. For an act of infringement under 35 U.S.C. § 271(e)(2), the Court may grant injunctive relief and damages or other monetary relief. 35 U.S.C. § 271(e)(4)(B)-(C).

18. Here, Adello committed an act of infringement with respect to each of the Asserted Patents under 35 U.S.C. § 271(e)(2)(C)(ii) when it caused the submission of the Adello aBLA for the purpose of obtaining FDA approval to engage in the commercial manufacture, use, or sale of the Adello Filgrastim Product.

19. Upon information and belief, Adello intends to commercially launch its Filgrastim Product upon receiving FDA approval.

20. Unless enjoined by this Court, upon information and belief, Adello will infringe one or more claims of each of the Asserted Patents under 35 U.S.C. §§ 271(a) and 271(g) by making, using, offering to sell or selling within the United States, or importing into the United States the Adello Filgrastim Product which Adello makes by a process covered by the Asserted Patents, before the expiration of Asserted Patents.

JURISDICTION AND VENUE

21. This action arises under the patent laws of the United States, Titles 35 and 42 of the United States Code, and under the Declaratory Judgment Act of 1934 (28 U.S.C. §§ 2201-2202).

22. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

23. Venue is proper in this District pursuant to 28 U.S.C. § 1391(b) and (c), and 28 U.S.C. § 1400(b).

24. Upon information and belief, Adello has its principal place of business in New Jersey and is licensed to do business in New Jersey. Adello maintains its corporate headquarters

and research and development laboratory in New Jersey. Adello thus resides in this district and has a regular and established place of business in this district.

25. This Court has personal jurisdiction over Adello. Upon information and belief, Adello is an active business entity registered with the New Jersey Department of Treasury under the business identification number 0450049858. Upon information and belief, Adello maintains a corporate agent for service of process at Princeton South Corporate Center, Suite 160, 100 Charles Ewing Boulevard, Ewing New Jersey, 08628.

26. Upon information and belief, Adello regularly conducts business in the State of New Jersey, engages in other persistent courses of conduct in the State of New Jersey, and/or derives substantial revenue from services or things used or consumed in the State of New Jersey. Upon information and belief, Adello maintains its corporate headquarters in Piscataway, New Jersey, where corporate functions are conducted and where Adello's research and development laboratory is maintained. Upon information and belief, Adello corporate officers, including its chief executive officer, are located in New Jersey.

27. Upon information and belief, Adello develops, manufactures, markets, distributes, sells, and seeks regulatory approval for biopharmaceuticals for sale and use throughout the United States, including in this federal Judicial District. Upon information and belief, Adello and/or its affiliates or agents will market, sell, and/or distribute the Adello Filgrastim Product throughout the United States, including in this Judicial District, and will derive substantial revenue therefrom.

28. Adello's infringement of the Asserted Patents under 35 U.S.C. §§ 271(a) and 271(g) is a substantial controversy "of sufficient immediacy and reality to warrant the issuance of a declaratory judgment" under 28 U.S.C. § 2201. *See Medimmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 127 (2007) (quoting *Maryland Cas. Co. v. Pac. Coal & Oil Co.*, 312 U.S. 270, 273

(1941)). Adello intends to commercially market the Adello Filgrastim Product upon receiving FDA approval, as early as March 10, 2018 (180 days from the September 11, 2018 Letter purporting to give 180-day notice of commercial marketing). FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Biosimilar Biological Product Reauthorization Performance Goals and Procedures Fiscal Years 2018 Through 2022, ("FDA Biosimilar Performance Goals 2018-2022") at 4, available at https://www.fda.gov/downloads/forindustry/userfees/biosimilaruserfeeactbsufa/ucm521121.pdf, attached herein as Exhibit 2. Adello notified Amgen that FDA accepted the Adello aBLA for review prior to September 11, 2018. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

BACKGROUND

A. Amgen's Innovative Biological Product: NEUPOGEN® (filgrastim)

29. Amgen is one of the world's leading biopharmaceutical companies and is dedicated to using discoveries in human biology to invent, develop, manufacture, and sell new therapeutic products for the benefit of patients suffering from serious illnesses. Toward that end, Amgen has invested billions of dollars into its research and development efforts.

30. In 1991, Amgen first received FDA approval for NEUPOGEN® (filgrastim), pursuant to Biologics Licensing Application ("BLA") No. 103353, for decreasing the incidence of infection, as manifested by febrile neutropenia, in patients with nonmyeloid malignancies receiving myelosuppressive anticancer drugs associated with a significant incidence of severe neutropenia with fever. The FDA later approved several additional indications for the therapeutic use of NEUPOGEN® (filgrastim), including the treatment of patients with severe chronic neutropenia, patients with acute myeloid leukemia receiving induction or consolidation

chemotherapy, patients receiving bone marrow transplant, and patients undergoing peripheral blood progenitor cell collection and therapy.

31. The active ingredient in NEUPOGEN® is filgrastim, a recombinantly expressed, 175-amino acid form of a protein known as human granulocyte-colony stimulating factor or "G-CSF." NEUPOGEN® (filgrastim) is also known as recombinant methionyl human granulocyte-colony stimulating factor. By binding to specific receptors on the surface of certain types of cells, NEUPOGEN® (filgrastim) stimulates the production of a type of white blood cells known as neutrophils. Neutrophils are the most abundant type of white blood cells and form a vital part of the human immune system. A deficiency in neutrophils is known as neutropenia, a condition which makes the individual highly susceptible to infection. Neutropenia can result from a number of causes; it is a common side effect of chemotherapeutic drugs used to treat certain forms of cancer. NEUPOGEN® (filgrastim) counteracts neutropenia. The availability of NEUPOGEN® (filgrastim) represented a major advance in cancer treatment by protecting chemotherapy patients from the harmful effects of neutropenia and by thus facilitating more effective chemotherapy regimens.

32. Developing a new therapeutic product from scratch is extremely expensive: studies estimate the cost of obtaining FDA approval of a new biologic product at more than $2.5 billion. *See* DiMasi J.A. *et al*., Innovation in the pharmaceutical industry: New estimates of R&D costs, 47 J. Health Econ. 20, 25-26 (2016), attached hereto as Exhibit 3.

B. Adello Seeks Approval to Market a Proposed Biosimilar Version of NEUPOGEN® (filgrastim) by Taking Advantage of the Abbreviated Subsection (k) Pathway of the BPCIA

33. Upon information and belief, Adello seeks approval to commercially manufacture, use, offer to sell, and sell, and import into the United States the Adello Filgrastim Product, a proposed biosimilar version of Plaintiffs' NEUPOGEN® (filgrastim) product.

34. Upon information and belief, Adello will use a bacterial expression system to manufacture its Filgrastim Product. *See* Adello Pipeline, http://adellobio.com/pipeline (last visited March 1, 2018), attached hereto as Exhibit 4.

35. Upon information and belief, Adello sought FDA approval for its Filgrastim Product by submitting its aBLA under the abbreviated licensing pathway of 42 U.S.C. § 262(k), which allows Adello to reference and rely on the approval and licensure of Plaintiffs' NEUPOGEN® (filgrastim) product in support of Adello's request for FDA approval.

36. Amgen independently demonstrated to the FDA that its biologic product NEUPOGEN® (filgrastim) is "safe, pure, and potent" pursuant to 42 U.S.C. § 262(a). Upon information and belief, Adello submitted an aBLA requesting that the FDA evaluate the suitability of its biological product for licensure, expressly electing and seeking reliance on Amgen's FDA license for NEUPOGEN® (filgrastim). Accordingly, Adello's application is based upon publicly available information regarding FDA's previous licensure determination that NEUPOGEN® (filgrastim) is "safe, pure, and potent." 42 U.S.C. § 262(k)(2)(A)(iii)(I).

37. Upon information and belief, the Adello Filgrastim Product is designed to copy and compete with Plaintiffs' NEUPOGEN® (filgrastim).

38. Adello's application is predicated on Plaintiffs' trailblazing efforts. Adello has publicly announced that it submitted the Adello aBLA under the subsection (k) pathway to obtain approval to commercially manufacture, use, offer to sell, and sell, and import into the United States the Adello Filgrastim Product that it asserts is a biosimilar version of Plaintiffs' NEUPOGEN®. *See* Exhibit 1, Adello Press Release.

THE PATENTS-IN-SUIT

39. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 6,180,391 ("the '391 Patent").

40. AML holds an exclusive license to the ’391 Patent.

41. The ’391 Patent, titled “Highly Efficient Controlled Expression of Exogenous Genes in *E. coli*,” was duly and legally issued on January 30, 2001 by the USPTO. A true and correct copy of the ’391 Patent is attached to this Complaint as Exhibit 5.

42. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 7,083,948 (“the ’948 Patent”).

43. AML holds an exclusive license to the ’948 Patent.

44. The ’948 Patent, titled “Polypeptide Purification Reagents and Methods for Their Use,” was duly and legally issued on August 1, 2006 by the USPTO. A true and correct copy of the ’948 Patent is attached to this Complaint as Exhibit 6.

45. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 7,118,884 (“the ’884 Patent”).

46. AML holds an exclusive license to the ’884 Patent.

47. The ’884 Patent, titled “Method for Controlling Metalloposphate Precipitation in High Cell Density Fermentations,” was duly and legally issued on October 10, 2006 by the USPTO. A true and correct copy of the ’884 Patent is attached to this Complaint as Exhibit 7.

48. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 7,384,765 (“the ’765 Patent”).

49. AML holds an exclusive license to the ’765 Patent.

50. The ’765 Patent, titled “Cell Culture Performance with Betaine,” was duly and legally issued on June 10, 2008 by the USPTO. A true and correct copy of the ’765 Patent is attached to this Complaint as Exhibit 8.

51. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 7,427,659 ("the '659 Patent").

52. AML holds an exclusive license to the '659 Patent.

53. The '659 Patent, titled "Process for Purifying Proteins in a Hydrophobic Interaction Chromatography Flow-Through Fraction," was duly and legally issued on September 23, 2008 by the USPTO. A true and correct copy of the '659 Patent is attached to this Complaint as Exhibit 9.

54. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 7,662,930 ("the '930 Patent").

55. AML holds an exclusive license to the '930 Patent.

56. The '930 Patent, titled "Polishing Steps used in Multi-Step Protein Purification Processes," was duly and legally issued on February 16, 2010 by the USPTO. A true and correct copy of the '930 Patent is attached to this Complaint as Exhibit 10.

57. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 7,735,525 ("the '525 Patent").

58. AML holds an exclusive license to the '525 Patent.

59. The '525 Patent, titled "Thermally Insulated Apparatus for Liquid Chromatographic Analysis," was duly and legally issued on June 15, 2010 by the USPTO. A true and correct copy of the '525 Patent is attached to this Complaint as Exhibit 11.

60. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 7,781,395 ("the '395 Patent").

61. AML holds an exclusive license to the '395 Patent.

62. The ’395 Patent, titled “Process for Purifying Proteins,” was duly and legally issued on August 24, 2010 by the USPTO. A true and correct copy of the ’395 Patent is attached to this Complaint as Exhibit 12.

63. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 8,191,566 (“the ’566 Patent”).

64. AML holds an exclusive license to the ’566 Patent.

65. The ’566 Patent, titled “Valve for Controlling the Flow of Steam and Other Fluids,” was duly and legally issued on June 5, 2012 by the USPTO. A true and correct copy of the ’566 Patent is attached to this Complaint as Exhibit 13.

66. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 8,273,707 (“the ’707 Patent”).

67. AML holds an exclusive license to the ’707 Patent.

68. The ’707 Patent, titled “Process For Purifying Proteins,” was duly and legally issued on September 25, 2012 by the USPTO. A true and correct copy of the ’707 Patent is attached to this Complaint as Exhibit 14.

69. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 8,940,878 (“the ’878 Patent”).

70. AML holds an exclusive license to the ’878 Patent.

71. The ’878 Patent, titled “Capture Purification Processes for Proteins Expressed in a Non-Mammalian System,” was duly and legally issued on January 27, 2015 by the USPTO. A true and correct copy of the ’878 Patent is attached to this Complaint as Exhibit 15.

72. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 8,952,138 (“the ’138 Patent”).

73. AML holds an exclusive license to the ’138 Patent.

74. The ’138 Patent, titled “Refolding Proteins Using a Chemically Controlled Redox State,” was duly and legally issued on February 10, 2015 by the USPTO. A true and correct copy of the ’138 Patent is attached to this Complaint as Exhibit 16.

75. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 9,418,416 (“the ’416 Patent”).

76. AML holds an exclusive license to the ’416 Patent.

77. The ’416 Patent, titled “Methods and Apparati for Nondestructive Detection of Undissolved Particles in Fluid,” was duly and legally issued on August 16, 2016 by the USPTO. A true and correct copy of the ’416 Patent is attached to this Complaint as Exhibit 17.

78. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 9,632,095 (“the ’095 Patent”).

79. AML holds an exclusive license to the ’095 Patent.

80. The ’095 Patent, titled “Device and Methods for Determining Reaction Kinetics,” was duly and legally issued on April 25, 2017 by the USPTO. A true and correct copy of the ’095 Patent is attached to this Complaint as Exhibit 18.

81. Amgen is the owner of all rights, title, and interest in the U.S. Patent No. 9,643,997 (“the ’997 Patent”).

82. AML holds an exclusive license to the ’997 Patent.

83. The ’997 Patent, titled “Capture Purification Processes for Proteins Expressed in a Non-Mammalian System,” was duly and legally issued on May 9, 2017 by the USPTO. A true and correct copy of the ’997 Patent is attached to this Complaint as Exhibit 19.

84. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 9,704,239 ("the '239 Patent").

85. AML holds an exclusive license to the '239 Patent.

86. The '239 Patent, titled "Video Trigger Synchronization for Improved Particle Detection in a Vessel," was duly and legally issued on July 11, 2017 by the USPTO. A true and correct copy of the '239 Patent is attached to this Complaint as Exhibit 20.

87. Amgen is the owner of all rights, title, and interest in U.S. Patent No. 9,856,287 ("the '287 Patent").

88. AML holds an exclusive license to the '287 Patent.

89. The '287 Patent, titled "Refolding Proteins Using a Chemically Controlled Redox State," was duly and legally issued on January 2, 2018 by the USPTO. A true and correct copy of the '287 Patent is attached to this Complaint as Exhibit 21.

CAUSES OF ACTION

COUNT I:
JUDGMENT OF INFRINGEMENT OF THE '391 PATENT

90. Plaintiffs incorporate by reference paragraphs 1-89 as if fully set forth herein.

91. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen's NEUPOGEN® (filgrastim) product.

92. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2,

FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

93. The '391 Patent is directed to methods of expressing protein. Representative claims 1 and 4 of the '391 Patent recite:

> 1. A translational repression vector system for use in cloning or expressing a specific heterologous gene in bacteria, said system comprising a DNA sequence encoding a translational repressor operably linked to a constitutive promoter, and said heterologous gene operably linked to an inducible promoter and a translational repressor recognition sequence; wherein pre-induction leakage of said inducible promoter is abolished without the loss of inducibility.
>
> 4. An [sic] process for cloning or expressing a heterologous gene in bacteria, said process comprising:
>
> culturing host cells which have been co-transformed with a first plasmid vector comprising a DNA sequence encoding an inducible promoter and said heterologous gene linked to a translational repressor recognition site and to said inducible promoter, and a second plasmid vector comprising a DNA sequence encoding a translational repressor operably linked to a constitutive promoter; wherein said translational repressor controls expression of said heterologous gene.

94. Upon information and belief, Adello will produce the protein for its Filgrastim Product (human granulocyte colony-stimulating factor, "G-CSF") using a bacterial expression system. *See* Exhibit 4, Adello Pipeline. Upon information and belief, production of the G-CSF protein for the Adello Filgrastim Product will require expression from a heterologous gene on an expression vector in bacteria because the G-CSF protein used in the Adello Filgrastim Product is a human protein, not a bacterial protein. Upon information and belief, expression of the G-CSF protein used in the Adello Filgrastim Product from a heterologous gene product in bacteria will require translation of the gene encoding G-CSF to be induced and/or repressed by some mechanism(s). Upon information and belief, the methods of expression of protein as claimed in the '391 Patent can be used for the expression of the G-CSF like the G-CSF in the Adello Filgrastim Product.

95. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

96. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the ’391 Patent, or has done so already, before the ’391 Patent expires. Adello’s making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product infringes one or more claims of the ’391 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

97. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the ’391 Patent.

98. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the ’391 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’391 Patent.

99. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the ’391 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive

relief under 35 U.S.C. § 283, prohibiting Adello from making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '391 Patent.

100. Adello's manufacture, use, offer to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product before the expiration of the '391 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT II:
JUDGMENT OF INFRINGEMENT OF THE '948 PATENT

101. Plaintiffs incorporate by reference paragraphs 1-100 as if fully set forth herein.

102. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen's NEUPOGEN® (filgrastim) product.

103. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

104. The '948 Patent is directed to processes for purifying protein. Representative claim 1 of the '948 Patent recites:

> 1. A method for purifying a protein of interest comprising:
> (a) combining an isolated recombinant, non-antibody polypeptide purification reagent with the protein of interest, wherein all or part of the polypeptide purification reagent is the product of an in vitro selection for binding to the protein of interest;

(b) adjusting conditions such that the polypeptide purification reagent can bind to the protein of interest and such that the polypeptide purification reagent, when bound to the protein of interest forms a precipitate; and
(c) recovering the polypeptide purification reagent bound to the protein of interest as a precipitate, wherein the performance of steps (a)-(c) purifies the protein of interest.

105. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system. *See* Exhibit 4, Adello Pipeline. Upon information and belief, production of the G-CSF protein for the Adello Filgrastim Product will require purification of the G-CSF protein from other components of the bacterial expression system and other contaminants. Upon information and belief, G-CSF protein is amenable to purification by methods claimed in the '948 Patent. *See* Exhibit 6, the '948 Patent, at col. 17:13-27.

106. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

107. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more of the claims of the '948 Patent, or has done so already, before the '948 Patent expires. Adello's making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product infringes one or more claims of the '948 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

108. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the ’948 Patent.

109. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the ’948 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’948 Patent.

110. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the ’948 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’948 Patent.

111. Adello’s manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the ’948 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT III:
JUDGMENT OF INFRINGEMENT OF THE ’884 PATENT

112. Plaintiffs incorporate by reference paragraphs 1-111 as if fully set forth herein.

113. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen’s NEUPOGEN® (filgrastim) product.

114. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving

FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

115. The ’884 Patent is directed to processes for improving protein production by bacterial fermentation. Representative claim 1 of the ’884 Patent recites:

> 1. A method for reducing precipitation in a bacterial fermentation process for producing a recombinant protein comprising inclusion of phosphate glasses as a phosphorus source in the nutrient media during production of said protein; wherein said process is a high cell density fermentation process.

116. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system. *See* Exhibit 4, Adello Pipeline. Upon information and belief, production of the G-CSF protein for the Adello Filgrastim Product will require recombinant expression from a heterologous gene on an expression vector in bacteria because the G-CSF protein used in the Adello Filgrastim Product is a human protein, not a bacterial protein. Bacterial expression systems, including *E. coli* systems, that are commonly used for production of large quantities of recombinant protein like human G-CSF are often grown at high cell densities. High cell density fermentations require the use of nutrient medias. When these medias are created, the addition of some ingredients, including phosphates, can lead to precipitation that causes problems in the feed medium and fermentation. Upon information and belief, in a commercial setting, such as the manufacture of a biosimilar product like the Adello Filgrastim Product, precipitation is therefore undesirable and steps like those claimed in the ’884 Patent are taken to avoid it.

117. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

118. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the ’884 Patent, or has done so already, before the’884 Patent expires. Adello’s making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product will infringe one or more claims of the ’884 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

119. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the ’884 Patent.

120. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the ’884 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’884 Patent.

121. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the ’884 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive

relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '884 Patent.

122. Adello's manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the '884 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT IV:
JUDGMENT OF INFRINGEMENT OF THE '765 PATENT

123. Plaintiffs incorporate by reference paragraphs 1-122 as if fully set forth herein.

124. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen's NEUPOGEN® (filgrastim) product.

125. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

126. The '765 Patent is directed to methods for culturing a recombinantly engineered cell line to produce a protein of interest. Representative claims 1 and 3 of the '765 Patent recite:

> 1. A method comprising culturing a recombinantly engineered cell line in culture medium in normal osmotic conditions, wherein the cell line is recombinantly engineered to express a polypeptide of interest, the medium has an effective amount of betaine, whereby cell survival and expression of said polypeptide of interest are improved relative to cells grown without betaine, wherein the cells

are grown during a proliferative phase in the absence of betaine, and in the presence of betaine in an induction phase.

3. The method of claim 1 wherein the cell line is a prokaryotic cell line.

127. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system. *See* Exhibit 4, Adello Pipeline. Upon information and belief, production of the G-CSF protein for the Adello Filgrastim Product will require expression in a cell line recombinantly engineered to express the G-CSF protein because the G-CSF protein used in the Adello Filgrastim Product is a human protein, not a bacterial protein. Upon information and belief, the methods of expression of protein as claimed in the '765 Patent can be used for the expression of the proteins like the G-CSF in the Adello Filgrastim Product. *See* Exhibit 8, the '765 Patent, at col. 6:4-33.

128. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

129. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the '765 Patent, or has done so already, before the '765 Patent expires. Adello's making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product infringes one or more claims of the '765 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

130. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the ’765 Patent.

131. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the ’765 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’765 Patent.

132. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the ’765 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’765 Patent.

133. Adello’s manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the ’765 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT V:
JUDGMENT OF INFRINGEMENT OF THE ’659 PATENT

134. Plaintiffs incorporate by reference paragraphs 1-133 as if fully set forth herein.

135. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen’s NEUPOGEN® (filgrastim) product.

136. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving

FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

137. The ’659 Patent is directed to processes for purifying protein. Representative claim 1 of the ’659 Patent recites:

> 1. A method for separating a recombinant target protein from a mixture containing the recombinant target protein and non-target cell culture protein contaminants produced by cell culture expression of the recombinant protein, comprising:
> a) contacting the mixture containing a recombinant target protein and a non-target cell culture protein contaminant produced by cell culture expression of the recombinant protein with a hydrophobic adsorbent comprising branched alkyl functional groups having from 4 to about 8 carbon atoms, at least one of which is a tertiary carbon atom, in an aqueous salt solution under loading conditions that permit the non-target cell culture protein contaminants to bind to the adsorbent and the recombinant target protein to pass through the hydrophobic adsorbent in a flow-through fraction without binding to the hydrophobic adsorbent, wherein the loading condition comprises a pH of from 5.5 to about 8.6;
> b) allowing the recombinant target protein to pass through the hydrophobic adsorbent in the flow-through fraction portion of the mixture; and
> c) collecting the flow-through fraction portion of the mixture containing the recombinant target protein that does not bind to the hydrophobic adsorbent to separate the recombinant target protein from the cell culture protein contaminants.

138. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system. *See* Exhibit 4, Adello Pipeline. Upon information and belief, production of the G-CSF protein for the Adello Filgrastim Product will require purification of the G-CSF protein from other components of the bacterial expression system and other contaminants. Upon information and belief, the G-CSF protein used in the Adello Filgrastim Product is amenable to purification by the hydrophobic interaction methods claimed in the ’659 Patent.

139. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

140. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the '659 Patent, or has done so already, before the '659 Patent expires. Adello's making, using, offering to sell, or selling within the United Sates, or importing into the United States the Adello Filgrastim Product will infringe one or more claims of the '659 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

141. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the '659 Patent.

142. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the '659 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '659 Patent.

143. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the '659 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive

relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '659 Patent.

144. Adello's manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the '659 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT VI:
JUDGMENT OF INFRINGEMENT OF THE '930 PATENT

145. Plaintiffs incorporate by reference paragraphs 1-144 as if fully set forth herein.

146. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen's NEUPOGEN® (filgrastim) product.

147. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

148. The '930 Patent is directed to processes for purifying protein. Representative claim 1 of the '930 Patent recites:

> 1. A method for removing residual impurities from a first target-molecule solution, the method comprising:
> loading the target-molecule solution onto a cation-exchange-chromatography column;

eluting the target molecule as a second target-molecule solution from the cation-exchange-chromatography column using a time dependent pH gradient buffer eluant to remove impurities from the first target molecule solution; and

passing the second target-molecule, diluted one-fold or less, solution through a Q membrane at a flow rate of between 400 and 600 cm/h to remove residual impurities from the second target-molecule solution.

149. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system. *See* Exhibit 4, Adello Pipeline. Upon information and belief, production of the G-CSF protein for the Adello Filgrastim Product will require purification of the G-CSF protein from other components of the bacterial expression system and other contaminants. Upon information and belief, the G-CSF protein used in the Adello Filgrastim Product is amenable to purification by the methods claimed in the ’930 Patent.

150. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

151. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the ’930 Patent, or has done so already, before the ’930 Patent expires. Adello’s making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product will infringe one or more claims of the ’930 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

152. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the ’930 Patent.

153. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the ’930 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’930 Patent.

154. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the ’930 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’930 Patent.

155. Adello’s manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the ’930 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT VII:
JUDGMENT OF INFRINGEMENT OF THE ’525 PATENT

156. Plaintiffs incorporate by reference paragraphs 1-155 as if fully set forth herein.

157. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen’s NEUPOGEN® (filgrastim) product.

158. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving

FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

159. The '525 Patent is directed to apparatuses and methods to improve liquid chromatography systems. Representative claim 1 of the '525 Patent recites:

> 1. A thermally insulated apparatus, comprising:
> (a) an elongated metallic body having an exterior portion, a hollow interior portion and two openings located at opposing ends of a longitudinal axis;
> (b) an insulating material contacting the exterior of the elongated metallic body of (a); and
> (c) two capping members having a design that allows the capping members to substantially cover the openings located at opposing ends of the longitudinal axis of the metallic body of (a), and wherein each of the two capping members comprise an opening or slit that allows tubing, which carries mobile phase into and out of a [sic] analytical separation column, to pass therethrough,
> wherein the insulation material substantially surrounds the entire outer surface of the elongated metallic body with the exception of those portions that contact a heating source.

160. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system. *See* Exhibit 4, Adello Pipeline. Upon information and belief, production of the G-CSF protein for the Adello Filgrastim Product will require purification of the G-CSF protein from other components of the bacterial expression system and other contaminants. Liquid chromatography is a common technique for purification of proteins for use in biological products, like the G-CSF used in the Adello Filgrastim Product. Temperature gradients between column media and pre-heated mobile phase components of liquid chromatography systems can negatively affect chromatographic performance. The '525 Patent addresses this problem by claiming apparatuses for thermally insulating liquid chromatographic separation columns and methods of using such apparatuses. Upon information and belief, the G-

CSF protein used in the Adello Filgrastim Product is amenable to purification by the liquid chromatographic techniques that include the improvements claimed in the '525 Patent.

161. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

162. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the '525 Patent, or has done so already, before the '525 Patent expires. Adello's making, using, offering to sell, or selling within the United Sates, or importing into the United States the Adello Filgrastim Product will infringe one or more claims of the '525 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

163. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the '525 Patent.

164. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the '525 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '525 Patent.

165. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the ’525 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’525 Patent.

166. Adello’s manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the ’525 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT VIII:
JUDGMENT OF INFRINGEMENT OF THE ’395 PATENT

167. Plaintiffs incorporate by reference paragraphs 1-166 as if fully set forth herein.

168. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen’s NEUPOGEN® (filgrastim) product.

169. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

170. The ’395 Patent is directed to processes for purifying protein. Representative claim 1 of the ’395 Patent recites:

> 1. A process for purifying a protein on a hydrophobic interaction chromatography column such that the dynamic capacity of the column is increased for that

> protein comprising mixing a preparation containing the protein with a combination of a first salt and a second salt, loading the mixture onto a hydrophobic interaction chromatography column, and eluting the protein, wherein the first and second salts are citrate and phosphate salts, and wherein the concentration of each of the first salt and the second salt in the mixture is between about 0.1 M and about 1.0.

171. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system. *See* Exhibit 4, Adello Pipeline. Upon information and belief, production of the G-CSF protein for the Adello Filgrastim Product will require purification of the G-CSF protein from other components of the bacterial expression system and other contaminants. Upon information and belief, the G-CSF protein used in the Adello Filgrastim Product is amenable to purification by the hydrophobic interaction methods claimed in the '395 Patent. *See* Exhibit 12, the '395 Patent, at col. 10:12-40.

172. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

173. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the '395 Patent, or has done so already, before the '395 Patent expires. Adello's making, using, offering to sell, or selling within the United Sates, or importing into the United States the Adello Filgrastim Product will infringe one or more claims of the '395 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

174. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the ’395 Patent.

175. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the ’395 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’395 Patent.

176. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the ’395 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’395 Patent.

177. Adello’s manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the ’395 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT IX:
JUDGMENT OF INFRINGEMENT OF THE ’566 PATENT

178. Plaintiffs incorporate by reference paragraphs 1-177 as if fully set forth herein.

179. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen’s NEUPOGEN® (filgrastim) product.

180. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving

FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

181. The ’566 Patent is directed to bioprocessing systems. Representative claim 1 of the ’566 Patent recites:

> 1. A method of fluid transfer using a conduit assembly including a conduit defining a channel and also including a rupture valve dividing the channel into an inlet portion and an outlet portion, the rupture valve having an inlet side and an outlet side, the method comprising:
>
> applying steam to the outlet portion of the channel with the rupture valve restricting entry of the steam into the inlet portion;
>
> rupturing the rupture valve by increasing a pressure exerted on at least a portion of the inlet side of the rupture valve to create a passageway through the rupture valve; and
>
> adding a fluid reagent to a receiver vessel connected to the conduit assembly, from a supply vessel containing the fluid reagent and through the passageway of the rupture valve.

182. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system and will purify the G-CSF protein for the drug product. *See* Exhibit 4, Adello Pipeline. Upon information and belief, production of the G-CSF protein for the Adello Filgrastim Product will therefore require bioprocessing equipment involving fluid flow. Upon information and belief, such fluid flow in a bioprocessing system may be controlled using a pressure-responsive valve as claimed in the ’566 Patent.

183. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at

this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

184. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the '566 Patent, or has done so already, before the '566 Patent expires. Adello's making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product will infringe one or more claims of the '566 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

185. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the '566 Patent.

186. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the '566 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '566 Patent.

187. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the '566 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '566 Patent.

188. Adello's manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the '566 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT X:
JUDGMENT OF INFRINGEMENT OF THE '707 PATENT

189. Plaintiffs incorporate by reference paragraphs 1-188 as if fully set forth herein.

190. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen's NEUPOGEN® (filgrastim) product.

191. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

192. The '707 Patent is directed to methods for purifying protein. Representative claim 1 of the '707 Patent recites:

> 1. A process for purifying a protein on a hydrophobic interaction chromatography column such that the dynamic capacity of the column is increased for the protein comprising mixing a preparation containing the protein with a combination of a first salt and a second salt, loading the mixture onto a hydrophobic interaction chromatography column, and eluting the protein, wherein the first and second salts are selected from the group consisting of citrate and sulfate, citrate and acetate, and sulfate and acetate, respectively, and wherein the concentration of each of the first salt and the second salt in the mixture is between about 0.1 M and about 1.0.

193. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system. *See* Exhibit 4, Adello Pipeline. Upon information and belief, production of the G-CSF protein for the Adello Filgrastim Product will require purification of the G-CSF protein from other components of the bacterial expression system and other contaminants. Upon information and belief, the G-CSF protein used in the Adello Filgrastim Product is amenable to purification by the hydrophobic interaction method claimed in the '707 Patent. *See* Exhibit 14, the '707 Patent, at col. 10:4-32.

194. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

195. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the '707 Patent, or has done so already, before the '707 Patent expires. Adello's making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product infringes one or more claims of the '707 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

196. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation

into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the ’707 Patent.

197. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the ’707 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’707 Patent.

198. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the ’707 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’707 Patent.

199. Adello’s manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the ’707 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT XI:
JUDGMENT OF INFRINGEMENT OF THE ’878 PATENT

200. Plaintiffs incorporate by reference paragraphs 1-199 as if fully set forth herein.

201. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen’s NEUPOGEN® (filgrastim) product.

202. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review

period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

203. The '878 Patent is directed to methods for purifying protein. Representative claim 7 of the '878 Patent recites:

> 7. A method of purifying a protein expressed in a non-native limited solubility form in a non-mammalian expression system comprising:
> (a) expressing a protein in a non-native limited solubility form in a non-mammalian cell;
> (b) lysing a non-mammalian cell;
> (c) solubilizing the expressed protein in a solubilization solution comprising one or more of the following:
> (i) a denaturant;
> (ii) a reductant; and
> (iii) a surfactant;
> (d) forming a refold solution comprising the solubilization solution and a refold buffer, the refold buffer comprising one or more of the following:
> (i) a denaturant;
> (ii) an aggregation suppressor;
> (iii) a protein stabilizer; and
> (iv) a redox component;
> (e) directly applying the refold solution to a separation matrix under conditions suitable for the protein to associate with the matrix;
> (f) washing the separation matrix; and
> (g) eluting the protein from the separation matrix, wherein the separation matrix is a non-affinity resin selected from the group consisting of ion exchange, mixed mode, and a hydrophobic interaction resin.

204. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system. *See* Exhibit 4, Adello Pipeline. G-CSF protein expressed in bacterial systems is typically expressed in insoluble form in inclusion bodies. Upon information and belief, production of the G-CSF protein for the Adello Filgrastim Product will therefore require isolation of the inclusion bodies, solubilization of the insoluble G-CSF protein form, refolding of the G-CSF protein, and purification of the G-CSF protein. Upon information and belief, the G-CSF protein used in the Adello Filgrastim Product is amenable to

the method claimed in the ’878 Patent to isolate inclusion bodies and to solubilize, refold, and purify the protein.

205. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

206. Upon information and belief, Adello intend to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the ’878 Patent, or has done so already, before the ’878 Patent expires. Adello’s making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product infringes one or more claims of the ’878 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

207. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the ’878 Patent.

208. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the ’878 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’878 Patent.

209. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the ’878 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’878 Patent.

210. Adello’s manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the ’878 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT XII:
JUDGMENT OF INFRINGEMENT OF THE ’138 PATENT

211. Plaintiffs incorporate by reference paragraphs 1-210 as if fully set forth herein.

212. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen’s NEUPOGEN® (filgrastim) product.

213. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

214. The ’138 Patent is directed to methods for refolding protein. Claim 18[2] of the ’138 Patent recites:

> 18. The method of claim 1, wherein the incubation is performed under non-aerobic conditions.

215. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system. *See* Exhibit 4, Adello Pipeline. G-CSF protein expressed in bacterial systems is typically expressed in insoluble form. Upon information and belief, production of the G-CSF protein for the Adello Filgrastim Product will therefore require solubilization of the insoluble G-CSF protein form, refolding of the G-CSF protein, and isolation of the G-CSF protein. Upon information and belief, the G-CSF protein used in the Adello Filgrastim Product is amenable to the solubilization, refolding, and isolation by the methods claimed in the ’138 Patent, wherein the incubation of the refold mixture is performed under non-aerobic conditions.

216. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA

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[2] Claim 18 depends from Claim 1, which recites:

> 1. A method of refolding a protein expressed in a non-mammalian expression system and present in a volume at a concentration of 2.0 g/L or greater comprising:
> (a) contacting the protein with a refold buffer comprising a redox component comprising a final thiol-pair ratio having a range of 0.001 to 100 and a redox buffer strength of 2 mM or greater and one or more of:
> (i) a denaturant;
> (ii) an aggregation suppressor; and
> (iii) a protein stabilizer; to form a refold mixture;
> (b) incubating the refold mixture; and
> (c) isolating the protein from the refold mixture.

or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

217. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the '138 Patent, or has done so already, before the '138 Patent expires. Adello's making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product infringes one or more claims of the '138 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

218. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the '138 Patent.

219. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the '138 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '138 Patent.

220. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the '138 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling

within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '138 Patent.

221. Adello's manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the '138 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT XIII:
JUDGMENT OF INFRINGEMENT OF THE '416 PATENT

222. Plaintiffs incorporate by reference paragraphs 1-221 as if fully set forth herein.

223. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen's NEUPOGEN® (filgrastim) product.

224. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

225. The '416 Patent is directed to methods for refolding protein. Representative claim 1 of the '416 Patent recites:

> 1. A method of nondestructive counting and sizing of undissolved particles in a vessel that is at least partially filled with a fluid, the method comprising:
> (a) receiving, by a sensor of an imaging system, at least one image of the particles in the vessel obtained under specified imaging conditions; and analyzing the at least one image by a processor of the imaging system, the analyzing including (b)-(d):
> (b) detecting the particles and determining information indicative of an apparent size of the detected particles in the image:

(c) determining apparent particle size population information indicative of an apparent particle size distribution of the detected particles; and
(d) determining actual particle size population information indicative of an actual particle size distribution of the detected particles based on:
(i) the apparent particle size population information; and
(ii) calibration population information indicative of the apparent size distribution of one or more sets of standard sized particles imaged under conditions corresponding to the specified imaging conditions;
wherein (d) comprises fitting a Superposition of apparent size distributions for a plurality of the sets of standard sized particles to the apparent particle size population of the detected particles; and
wherein fitting the Superposition of apparent size distributions for the plurality of sets of standard sized particles conditions to the apparent particle size population of the detected particles comprises: minimizing a difference between the Superposition and the apparent particle size population of the detected particles by adjusting the weighting of the apparent size distributions for the plurality of sets of standard sized particles.

226. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system and purify the G-CSF protein for the drug product. *See* Exhibit 4, Adello Pipeline. Upon information and belief, production of the Adello Filgrastim Product will therefore require bioprocessing equipment for processing fluids that may contain particulates. Upon information and belief, the methods claimed in the ’416 Patent are able to determine the particulates in bioprocessing equipment of the sort that is used for production of proteins for biologic pharmaceutical products, like the Adello Filgrastim Product.

227. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

228. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which

is made by a process that falls within the scope of one or more claims of the '416 Patent, or has done so already, before the '416 Patent expires. Adello's making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product infringes one or more claims of the '416 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

229. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the '416 Patent.

230. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the '416 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '416 Patent.

231. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the '416 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '416 Patent.

232. Adello's manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the '416 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT XIV:
JUDGMENT OF INFRINGEMENT OF THE '095 PATENT

233. Plaintiffs incorporate by reference paragraphs 1-232 as if fully set forth herein.

234. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen's NEUPOGEN® (filgrastim) product.

235. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

236. The '095 Patent is directed to methods for determining rates of degradation or aggregation of chemical species. Representative claim 1 of the '095 Patent recites:

> 1. A method of determining the reaction rate coefficient (k_{obs}) for the degradation of a chemical species at each of a plurality of constant temperatures, comprising in sequence the steps of
> a) simultaneously incubating a plurality of samples of the chemical species in a single unitary device at said plurality of constant temperatures T, wherein the incubation of each of the plurality of samples is performed for an incubation time t selected to result in loss of a portion of the chemical species, said portion being at most 20 mol % of the amount originally present, where the choice of t might or might not be the same for each value of T;
> b) quenching each of the samples in a manner sufficient to stop degradation;
> c) determining the mole fraction m of the chemical species remaining in each of the quenched samples, relative to the amount present before incubating; and
> d) determining for each sample a reaction rate coefficient k_{obs} according to the equation
>
> $$k_{obs}(T) = \frac{1 - m(T)}{t}.$$

237. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system. *See* Exhibit 4, Adello Pipeline. Protein like the G-CSF protein used in the Adello Filgrastim Product can degrade or aggregate, which is

undesirable when producing a drug product. It is therefore useful to be able to determine the rate of degradation or aggregation for a protein at a given temperature. Upon information and belief, the degradation and/or aggregation of the G-CSF protein used in the Adello Filgrastim Product is amenable to determination by the method claimed in the '095 Patent.

238. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

239. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the '095 Patent, or has done so already, before the '095 Patent expires. Adello's making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product infringes one or more claims of the '095 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

240. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the '095 Patent.

241. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the '095 Patent by making, using, offering to sell, or selling within

the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '095 Patent.

242. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the '095 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '095 Patent.

243. Adello's manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the '095 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT XV:
JUDGMENT OF INFRINGEMENT OF THE '997 PATENT

244. Plaintiffs incorporate by reference paragraphs 1-243 as if fully set forth herein.

245. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen's NEUPOGEN® (filgrastim) product.

246. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

247. The ’997 Patent is directed to methods for purifying protein. Representative claim 9 of the ’997 Patent recites:

> 9. A method of purifying a protein expressed in a non-native limited solubility form in a non-mammalian expression system comprising:
> (a) expressing a protein in a non-native limited solubility form in a non-mammalian cell;
> (b) lysing a non-mammalian cell;
> (c) solubilizing the expressed protein in a solubilization solution comprising one or more of the following:
> (i) a denaturant;
> (ii) a reductant; and
> (iii) a surfactant;
> (d) forming a refold solution comprising the solubilization solution and a refold buffer, the refold buffer comprising one or more of the following:
> (i) a denaturant;
> (ii) an aggregation suppressor;
> (iii) a protein stabilizer; and
> (iv) a redox component;
> (e) applying the refold solution to a separation matrix under conditions suitable for the protein to associate with the matrix;
> (f) washing the separation matrix; and
> (g) eluting the protein from the separation matrix.

248. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system. *See* Exhibit 4, Adello Pipeline. G-CSF protein expressed in bacterial systems is typically expressed in insoluble form in inclusion bodies. Upon information and belief, production of the G-CSF protein for the Adello Filgrastim Product will therefore require isolation of the inclusion bodies, solubilization of the insoluble G-CSF protein form, refolding of the G-CSF protein, and purification of the G-CSF protein. Upon information and belief, the G-CSF protein used in the Adello Filgrastim Product is amenable to the method claimed in the ’997 Patent to isolate inclusion bodies and to solubilize, refold, and purify the protein.

249. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA

or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

250. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the '997 Patent, or has done so already, before the '997 Patent expires. Adello's making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product infringes one or more claims of the '997 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

251. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the '997 Patent.

252. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the '997 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '997 Patent.

253. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the '997 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling

within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '997 Patent.

254. Adello's manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the '997 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT XVI:
JUDGMENT OF INFRINGEMENT OF THE '239 PATENT

255. Plaintiffs incorporate by reference paragraphs 1-254 as if fully set forth herein.

256. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen's NEUPOGEN® (filgrastim) product.

257. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

258. The '239 Patent is directed to methods for determining particles in a fluid during agitation. Representative claim 1 of the '239 Patent recites:

> 1. A method comprising:
> during an agitation period of an agitation profile, applying a motion to a transparent vessel containing a fluid acquiring, via one or more imagers while applying the motion, a sequence of original images of a portion of the transparent vessel, the acquisition of the sequence of original images being synchronized to the agitation profile such that each original image in the sequence of original images corresponds to the transparent vessel being in the same position;

generating, via one or more processors, a background image from the sequence of original images;
generating, via one or more processors, a resultant image from the background image and an original image in the sequence of original images; and
identifying, via one or more processors, a particle in the fluid from the resultant image.

259. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system and purify the G-CSF protein for the drug product. *See* Exhibit 4, Adello Pipeline. Upon information and belief, production of the Adello Filgrastim Product will therefore require bioprocessing equipment for processing fluids that may contain particulates. Upon information and belief, the methods claimed in the '239 are able to determine the particulates in bioprocessing equipment of the sort that is used for production of proteins for biologic pharmaceutical products, like the Adello Filgrastim Product.

260. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

261. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the '239 Patent, or has done so already, before the '239 Patent expires. Adello's making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product infringes one or more claims of the '239 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(C)(2)(ii).

262. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the ’239 Patent.

263. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the ’239 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’239 Patent.

264. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the ’239 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’239 Patent.

265. Adello’s manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the ’239 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

COUNT XVII:
JUDGMENT OF INFRINGEMENT OF THE ’287 PATENT

266. Plaintiffs incorporate by reference paragraphs 1-265 as if fully set forth herein.

267. Upon information and belief, Adello seeks FDA approval under Section 351(k) of the Public Health Service Act to manufacture and sell the Adello Filgrastim Product, a proposed biosimilar version of Amgen’s NEUPOGEN® (filgrastim) product.

268. In its September 11, 2017 Letter, Adello notified Amgen that FDA accepted the Adello aBLA for review and that Adello intends to market its Filgrastim Product upon receiving

FDA approval, no earlier than 180 days from September 11, 2017. FDA has publicly stated that its goal is to act upon 90% of aBLA applications within 10 months of the 60-day-filing-review period that begins on the date of FDA receipt of the original aBLA submission. *See* Exhibit 2, FDA Biosimilar Performance Goals 2018-2022, at 4. FDA is therefore expected to act upon the Adello aBLA by the third quarter of 2018.

269. The ’287 Patent is directed to methods of refolding proteins. Representative claim 1 of the ’287 Patent recites:

> 1. A method of refolding proteins expressed in a non-mammalian expression system, the method comprising:
> contacting the proteins with a preparation that supports the renaturation of at least one of the proteins to a biologically active form, to form a refold mixture, the preparation comprising:
> at least one ingredient selected from the group consisting of a denaturant, an aggregation suppressor and a protein stabilizer;
> an amount of oxidant; and
> an amount of reductant,
> wherein the amounts of the oxidant and the reductant are related through a thiol-pair ratio and a thiol-pair buffer strength,
> wherein the thiol-pair ratio is in the range of 0.001-100; and
> wherein the thiol-pair buffer strength maintains the
> solubility of the preparation; and
> incubating the refold mixture so that at least about 25% of the proteins are properly refolded.

270. Upon information and belief, Adello will produce the G-CSF protein for its Filgrastim Product using a bacterial expression system. *See* Exhibit 4, Adello Pipeline. G-CSF protein expressed in bacterial systems is typically expressed in insoluble form. Upon information and belief, production of the G-CSF protein for the Adello Filgrastim Product will therefore require refolding of the G-CSF protein. Upon information and belief, the G-CSF protein used in the Adello Filgrastim Product is amenable to refolding by the methods claimed in the ’287 Patent.

271. Adello has stated that it is not required under 42 U.S.C. § 262(*l*)(2)(A) to provide its aBLA or manufacturing information to Amgen and that it does not intend to provide its aBLA

or manufacturing information to Amgen. Amgen is thus unable to provide a more detailed infringement analysis for the Adello Filgrastim Product or the process(es) of its manufacture at this time without discovery, including the Adello aBLA and other information that describes the process or processes used to manufacture the Adello Filgrastim Product.

272. Upon information and belief, Adello intends to and will make, use, offer to sell, or sell within the United States, or import into the United States the Adello Filgrastim Product, which is made by a process that falls within the scope of one or more claims of the ’287 Patent, or has done so already, before the ’287 Patent expires. Adello’s making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim product will infringe one or more claims of the ’287 Patent under 35 U.S.C. §§ 271(a), 271(g), and/or 271(e)(2)(C)(ii).

273. An actual controversy has arisen and now exists between the parties concerning whether the manufacture, use, offering to sell, or sale within the United States or the importation into the United States of the Adello Filgrastim Product has or will infringe one or more claims of the ’287 Patent.

274. Plaintiffs are entitled to a declaratory judgment that Adello has infringed or will infringe one or more claims of the ’287 Patent by making, using, offering to sell, or selling within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the ’287 Patent.

275. Plaintiffs will be irreparably harmed if Adello is not enjoined from infringing the ’287 Patent. Plaintiffs do not have an adequate remedy at law and are entitled to injunctive relief under 35 U.S.C. § 283 prohibiting Adello from making, using, offering to sell, or selling

within the United States, or importing into the United States the Adello Filgrastim Product before the expiration of the '287 Patent.

276. Adello's manufacture, use, offer to sell, or sale within the United States, or importation into the United States of the Adello Filgrastim Product before the expiration of the '287 Patent will cause injury to Plaintiffs, entitling them to damages under 35 U.S.C. § 284.

DEMAND FOR A JURY TRIAL

Plaintiffs hereby demand a jury trial on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully request that this Court enter judgment in its favor against Adello and grant the following relief:

A. a judgment that Adello has infringed or will infringe one or more claims of each of the Asserted Patents under 35 U.S.C. § 271(a);

B. a judgment that Adello has infringed or will infringe one or more claims of each of the Asserted Patents under 35 U.S.C. § 271(g);

C. a judgement that Adello has infringed one or more claims of each of the Asserted Patents under 35 U.S.C. § 271(e)(2)(C)(ii);

D. a judgment compelling Adello to pay to Plaintiffs damages or other monetary relief adequate to compensate for Adello's infringement of each of the Asserted Patents, in accordance with 35 U.S.C. § 284;

E. a preliminary and/or permanent injunction that enjoins Adello, as well as all officers, employees, agents, representatives, affiliates, assignees, successors, and affiliates of Adello, and all persons acting on behalf of or at the direction of, or in concert with Adello, from infringing each of the Asserted Patents, or contributing to or inducing anyone to do the same, in accordance with 35 U.S.C. § 283;

F. a declaration that this is an exceptional case and awarding to Plaintiffs their attorney's fees and costs pursuant to 35 U.S.C. § 285, and expenses, and

G. such other relief as this Court may deem just and proper.

Dated: March 8, 2018

/s/ Liza M. Walsh

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RULE 11.2 CERTIFICATION

We hereby certify that, to the best of our knowledge, the following related actions and proceedings are pending:

1. *Amgen Inc., Amgen Manufacturing, Limited v. Sandoz Inc., Sandoz International GmbH, Sandoz GmbH*, No. 2018-1551 (Fed. Cir. Feb. 12, 2018) (appeal from *Amgen Inc., Amgen Manufacturing, Limited v. Sandoz Inc., Sandoz International GmbH, Sandoz GmbH*, Case No. 3:14-cv-04741-RS (N.D. Cal. Oct. 24, 2014)).

2. *Amgen Inc., Amgen Manufacturing, Limited v. Sandoz Inc., Sandoz International GmbH, Sandoz GmbH, Lek Pharmaceuticals, d.d.*, No. 2018-1552 (Fed. Cir. Feb 12, 2018) (appeal from *Amgen Inc., Amgen Manufacturing, Limited v. Sandoz Inc., Sandoz International GmbH, Sandoz GmbH, Lek Pharmaceuticals, d.d.*, Case No. 3:16-cv-02581-RS (N.D. Cal. May 12, 2016)).

3. *Amgen Inc., Amgen Manufacturing Limited v. Mylan Inc., Mylan Pharmaceuticals Inc., Mylan GmbH, Mylan N.V.*, Case No. 2:17-cv-01235-MRH (W.D. Pa. Sep. 22, 2017).

4. *Amgen Inc., Amgen Manufacturing Limited v. Coherus Biosciences Inc.*, Case No. 17-546(LPS)(CJB), (D. Del. May 5, 2017).

5. *Apotex Inc., Apotex Corp. v. Amgen Inc., Amgen Manufacturing Limited, Inter Partes Review No.* IPR2016-01542 (P.T.A.B. Aug. 8, 2015).

Dated: March 8, 2018

/s/ Liza M. Walsh

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RULE 201.1 CERTIFICATION

We hereby certify that the above-captioned matter is not subject to compulsory arbitration in that the Plaintiffs seek, *inter alia*, injunctive relief.

Dated: March 8, 2018

/s/ Liza M. Walsh

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