IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEBRASKA
OMAHA DIVISION

CONSTANCE SUNDELL, ***Plaintiff,*** ***vs.*** **NOVARTIS PHARMACEUTICALS CORPORATION; NOVARTIS AG; NOVARTIS PHARMA AG; NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC.; NOVARTIS PHARMACEUTICALS UK LIMITED; ALCON RESEARCH, LLC, F/K/A ALCON RESEARCH, LTD.,** ***Defendants.***	§ § § § § § § § § § § § § § §	**CASE NO.:** **COMPLAINT FOR DAMAGES** **DEMAND FOR JURY TRIAL**

COMPLAINT

COMES NOW Plaintiff, **CONSTANCE SUNDELL,** by and through undersigned counsel, and hereby brings this action for damages against Defendants, Novartis Pharmaceuticals Corporation; Novartis AG; Novartis Pharma AG; Novartis Institutes for Biomedical Research, Inc.; Novartis Pharmaceuticals UK Limited; and Alcon Research, LLC f/k/a Alcon Research, Ltd., and alleges as follows:

INTRODUCTION

1. This is an action for damages due to Plaintiff relating to Defendants' development, testing, manufacture, packaging, preparation, labeling, marketing, supply and/or sale of the dangerous and defective pharmaceutical product Beovu®.

2. Defendants misrepresented that Beovu was a safe and effective treatment for age-related macular degeneration when in fact the drug causes serious medical problems including

intraocular inflammation, retinal vasculitis, retinal vascular occlusion, and other serious vision problems.

3. Defendants failed to warn physicians and the public about Beovu's propensity to cause vision related adverse events including, but not limited to, ocular inflammation, retinal vasculitis, retinal vascular occlusion, and other serious and permanent eye injuries.

4. Consumers and physicians alike have been misled about Beovu's safety and efficacy, and as a result consumers, including Plaintiff, have suffered serious and permanent eye injuries including ocular inflammation, retinal vasculitis, retinal vascular occlusion, and other serious eye injuries.

PARTIES

5. Plaintiff, CONSTANCE SUNDELL is and was at all times relevant hereto, a resident of Douglas County, Nebraska. Plaintiff used Beovu, and was treated for her Beovu related injuries, in this judicial District.

6. Defendant, Novartis Pharmaceuticals Corporation, a subsidiary of Novartis AG, is and was at all times relevant hereto, a corporation organized under the laws of the State of Delaware with its principal place of business at One Health Plaza, East Hanover, New Jersey 07936. Defendant, Novartis Pharmaceuticals Corporation is the current sponsor of the Biologics License Application for Beovu, and thus maintains primary responsibility and control over the drug and all activities and materials relating thereto. Upon information and belief, Defendant, Novartis Pharmaceuticals Corporation has also been substantively involved in the design, funding, authoring, conduct and/or publication of medical research related to Beovu.

7. Defendant, Novartis AG is and was at all times relevant hereto, a foreign corporation organized and existing under the laws of Switzerland with its principal place of business at Lichtstrasse 35, CH-4056 Basel, Switzerland. Defendant, Novartis AG is the ultimate

global parent corporation to Defendants, Novartis Pharmaceuticals Corporation, Novartis Pharma AG, Novartis Institutes for Biomedical Research, Inc., and Novartis Pharmaceuticals UK Limited. Upon information and belief, Defendant, Novartis AG has been substantively involved in the design, funding, authoring, conduct and/or publication of medical research related to Beovu.

8. Defendant, Novartis Pharma AG, a subsidiary of Novartis AG, is and was at all times relevant hereto, a foreign corporation organized and existing under the laws of Switzerland with its principal place of business at Lichtstrasse 35, CH-4056 Basel, Switzerland. Upon information and belief, Defendant, Novartis Pharma AG developed the commercial formulation of Beovu, and has been substantively involved in the design, funding, authoring, conduct and/or publication of medical research related to Beovu.

9. Defendant, Novartis Institutes for Biomedical Research, Inc., a subsidiary of Novartis AG, is and was at all times relevant hereto, a corporation organized under the laws of the State of Delaware with its principal place of business at 250 Massachusetts Avenue, Cambridge, Massachusetts 02139. Upon information and belief, Defendant, Novartis Institutes for Biomedical Research, Inc. has been substantively involved in the design, funding, authoring conduct, and/or publication of medical research related to Beovu.

10. Defendant, Novartis Pharmaceuticals UK Limited, a subsidiary of Novartis AG, is and was at all times relevant hereto, a foreign corporation organized and existing under the laws of the United Kingdom with its principal place of business at Frimley Business Park, Frimley, Camberley, Surrey, GU16 7SR, United Kingdom. Upon information and belief, Defendant, Novartis Pharmaceuticals UK Limited has been substantively involved in the design, funding, authoring, conduct and/or publication of medical research related to Beovu.

11. Defendant, Alcon Research, LLC, formerly known as Alcon Research, Ltd., is and was at all times relevant hereto, a corporation organized under the laws of the State of Delaware with its principal place of business at 6201 South Freeway, Fort Worth, Texas 76134. Upon information and belief, Defendant, Alcon Research, LLC, formerly known as Alcon Research, Ltd., was the entity which maintained primary responsibility for the design and conduct of the Phase I, II, and III clinical trials for Beovu, filed the original Investigational New Drug Application for Beovu with the FDA on April 20, 2011, and sponsored the Biologics License Application for Beovu until October 16, 2018. Additionally, Defendant, Alcon Research, LLC, formerly known as Alcon Research, Ltd., has been substantively involved in the design, funding, authoring, conduct and/or publication of medical research related to Beovu.

12. Defendants, Novartis Pharmaceuticals Corporation; Novartis AG; Novartis Pharma AG; Novartis Institutes for Biomedical Research, Inc.; Novartis Pharmaceuticals UK Limited; and Alcon Research, LLC f/k/a Alcon Research, Ltd., shall hereinafter be referred to collectively as "Defendants" or "Novartis".

13. Defendants were jointly engaged in the business of designing, developing, manufacturing, testing, packaging, promoting, marketing, distributing, labeling, and/or selling Beovu, and controlling the Investigational New Drug Application and Biologics License Application for Beovu.

14. At all times relevant hereto, Defendants include and have included any and all parent companies, subsidiaries, affiliates, divisions, franchises, partners, joint venturers, and organizational units of any kind, their predecessors, successors and assigns and their officers, directors, employees, agents, representatives and any and all other persons acting on their behalf.

15. At all times relevant hereto, Defendants were engaged in the business of

developing, designing, licensing, manufacturing, distributing, selling, marketing, and or introducing into interstate commerce throughout the United States, and in the state of Nebraska, either directly or indirectly, through third-parties, subsidiaries and/or related entities, the pharmaceutical product Beovu.

JURISDICTION & VENUE

16. The jurisdiction of this Court over the subject matter of this action is predicated on 28 U.S.C. § 1332. The amount in controversy exceeds $75,000.00, exclusive of interest and costs and complete diversity of citizenship exists between the parties.

17. Venue in this Court is proper pursuant to 28 U.S.C § 1391 in that a substantial part of the events or omissions giving rise to the claims asserted herein occurred in this District, and Defendants are subject to personal jurisdiction in this District.

GENERAL ALLEGATIONS

18. This action is for damages brought on behalf of Plaintiff, CONSTANCE SUNDELL, who was prescribed and supplied with and who has taken the prescription drug Beovu, as tested, studied, researched, evaluated, endorsed, designed, formulated, compounded, manufactured, produced, processed, assembled, inspected, distributed, marketed, labeled, promoted, packaged, advertised for sale, or otherwise placed in the stream of commerce by Defendants.

19. Plaintiff, CONSTANCE SUNDELL**,** brings this action against Defendants to recover damages for the injuries suffered as a result of her ingestion of Beovu and to recover for her individual economic and non-economic damages which she sustained as a result therefrom.

20. Defendants' wrongful acts, omissions, and fraudulent misrepresentations caused Plaintiff's injuries and damages.

21. At all times relevant, Defendants were engaged in the business of researching, licensing, designing, formulating, compounding, testing, manufacturing, producing, processing, assembling, inspecting, distributing, marketing, labeling, promoting, packaging and/or advertising for sale the prescription drug Beovu for use by physicians in treating their patients, including Plaintiff.

22. At all times relevant, Defendants were authorized to do business within Plaintiff's state of residence and did conduct such business.

23. At times relevant, the officers and directors of Defendants participated in, authorized, and directed the production and promotion of Beovu when they knew, or with the exercise of reasonable care should have known, of the hazards and dangerous propensities of Beovu and thereby actively participated in the tortious conduct which resulted in the injuries suffered by Plaintiff discussed herein.

FACTS COMMON TO ALL COUNTS

24. Beovu® (brolucizumab) is a human vascular endothelial growth factor ("VEGF") inhibitor indicated for the treatment of Neovascular (Wet) Age-Related Macular Degeneration ("AMD" or "nAMD") in adults.

25. Wet AMD, also referred to as exudative AMD ("eAMD"), is characterized by the presence of choroidal neovascularization, a pathologic form of angiogenesis that results in the leakage and accumulation of fluid within the retina. In general, the primary goal of treatment for wet AMD is to maintain visual acuity, which requires drying the retina through the inhibition of new blood vessel growth and reduction of fluid leakage.

26. The Beovu molecule, formerly known as ESBA1800 and/or RTH258, was originally developed by Switzerland-based ESBATech AG. ESBATech AG was acquired by

Alcon, Inc. in September 2009, after which Alcon, Inc. and its subsidiaries, including Alcon Research, LLC f/k/a Alcon Research, Ltd., assumed ownership and all future marketing rights to Beovu. Novartis Pharmaceuticals Corporation subsequently acquired Alcon, Inc. in April 2011, and with it, ownership and all future marketing rights to Beovu. During the premarketing development process, Beovu was regulated under Investigational New Drug Application number 112023 in the United States.

27. Novartis announced that the United States Food and Drug Administration ("FDA") accepted the Biologics License Application ("BLA") for Beovu on April 15, 2019. At that time, Novartis noted that it had used a priority review voucher to expedite review of Beovu in the U.S. in order to "make brolucizumab available as quickly as possible". This is despite the fact that safe and efficacious drugs for the treatment of wet AMD were already on the market in the United States.

28. Beovu received FDA approval on October 7, 2019 under BLA number 761125.

29. Approval of Beovu was based on the results of two prospective, randomized, double-blind, multicenter Phase III studies, HAWK (NCT02307682) and HARRIER (NCT02434328), which, based on the data as characterized to the FDA by Defendants, met the primary endpoint of non-inferiority to aflibercept in mean change in best-corrected visual acuity ("BCVA") from baseline to week 48.

30. Beovu is administered as an intravitreal injection and is intended to treat AMD by inhibiting the binding of VEGF to the VEGFR1 and VEGFR2 receptors, thereby suppressing the growth of abnormal blood vessels and reducing the potential for fluid leakage into the retina.

31. Beovu is the third VEGF inhibitor to receive FDA approval for the treatment of wet AMD. Other VEGF inhibitors approved for the treatment of wet AMD include Lucentis®

(ranibizumab) by Genentech, which was approved June 30, 2006, and Eylea® (aflibercept) by Regeneron Pharmaceuticals, which was approved November 18, 2011. Unlike Beovu, Lucentis and Eylea "have been well established as effective and safe anti-VEGF therapies for nAMD".

32. Although not approved by the FDA for this indication, Avastin® (bevacizumab) by Genentech is another VEGF inhibitor routinely utilized by ophthalmologists in the treatment of wet AMD. Avastin has been on the market since February 26, 2004.

33. Clinical treatment guidelines published by the American Academy of Ophthalmology currently state "intravitreal injection therapy using anti-vascular endothelial growth factor (VEGF) agents (e.g., aflibercept, bevacizumab, and ranibizumab) is the most effective way to manage neovascular AMD and represents the first line of treatment".

34. Novartis sought to acquire and develop a new drug for the treatment of wet AMD that they could promote as requiring less frequent injections than other VEGF inhibitors. This would be accomplished by creating a drug composed of a smaller molecule that would allow for delivery of a greater molar dose with more effective tissue penetration and greater durability, thereby allowing for longer intervals between injections.

35. According to the published article titled *Retinal vasculitis and intraocular inflammation after intravitreal injection of brolucizumab* by Baumal et al., Beovu's "molecular mass of 26 kDa is less than that of other commercially available anti-VEGF agents, allowing for a higher molar concentration with potential for greater anti-VEGF therapeutic performance per intravitreal injection. Increased molar concentration combined with a high binding affinity for VEGF have been postulated to account for its potential for increased durability, and brolucizumab is the first agent in this class approved for a dosing interval range of 8 to 12 weeks after 3 loading doses."

36. Since receiving FDA approval, Novartis has encouraged ophthalmologists to switch their patients to Beovu by marketing it as requiring less frequent injections than other VEGF inhibitors used in the treatment of AMD, thereby purporting to offer greater convenience and reduce patient non-adherence.

37. While Novartis' marketing of Beovu has been primarily directed towards convincing doctors to switch patients who have previously been treated with other VEGF inhibitors to Beovu, none of the patients included in the premarket clinical trials had ever received prior treatment with other VEGF inhibitors. Instead, the study protocols for the HAWK and HARRIER clinical trials required all enrolled patients to be treatment-naïve. Therefore, Novartis failed to perform any testing in the very patient population to which it intended, and indeed did, specifically market Beovu to after it received FDA approval.

38. The instant matter involves injuries of retinal vasculitis, retinal vascular occlusion, and other acute eye injuries associated with the administration of Beovu.

39. Retinal vasculitis is characterized by inflammation of the vessels of the retina typically leading to a decrease in vision. Retinal vascular occlusion is characterized by an obstruction of the venous system of the retina, usually by a thrombus or embolus, causing vision loss which can be severe and permanent. In many cases patients can present with concomitant retinal vasculitis and retinal vascular occlusion.

40. Retinal vasculitis and retinal vascular occlusion are injuries unique to Beovu use. These injuries have been widely reported in patients taking Beovu, but are not considered to be a risk with other VEGF inhibitors.

41. Data from the HAWK and HARRIER Phase III clinical trials were published in January 2020. In their publication titled *HAWK and HARRIER: phase 3, multicenter,*

randomized, double-masked trials of brolucizumab for neovascular age-related macular degeneration, Dugel et al. reported no cases of retinal vasculitis in any treatment group, two (0.6%) serious cases of retinal artery occlusion in the Beovu 3mg group, no serious cases of retinal artery occlusion in the Beovu 6mg groups, and one (0.3%) serious case of retinal artery occlusion in the aflibercept 2mg group. These events were simply listed in a table in the publication and were not discussed by authors in the text of the manuscript. Additionally, as noted below, these events were significantly underreported in this publication.

42. It should further be noted that Defendant, Novartis Pharma AG funded and "participated in the design of the study; management, analysis, and interpretation of the data; preparation, review, and approval of the manuscript" for this publication by Dugel and colleagues. Additionally, two of the authors of this study, James Warburton, MBBS and Andreas Weichselberger, PhD, were employees of Defendant, Novartis Pharma AG, and were noted to have contributed to the conception and design, data collection, analysis and interpretation, and maintained overall responsibility for the study. These two authors are also inventors of the brolucizumab molecule as reflected on United States Patent number US 2016/0130337 A1. Accordingly, at all times Defendant maintained control over the study data and manuscript, and thus had the ability to edit, revise, or correct any false or misleading information contained therein, however it chose not to do so.

43. On February 23, 2020, the American Society of Retina Specialists ("ASRS") issued an alert to its members in which it noted that it had received 14 reported cases of vasculitis following Beovu injections, 11 of which were designated as occlusive retinal vasculitis.

44. On March 30, 2020, ASRS issued an update noting the number of cases of retinal

vasculitis following intravitreal injections of Beovu it had received had risen to 25, with 21 such cases involving retinal occlusion.

45. Subsequent to the first ASRS communication in February 2020, Novartis announced it was "conducting a comprehensive review of a limited number of reported cases of severe vision loss, inflammation and potential retinal vasculitis in patients treated with Beovu" and that it would commission an external Safety Review Committee to conduct safety evaluations for Beovu.

46. Following their review of safety data, on April 8, 2020 Novartis confirmed the existence of a safety signal involving rare adverse events of "retinal vasculitis and/or retinal vascular occlusion that may result in severe vision loss" for Beovu.

47. On June 4, 2020, ASRS issued a report containing the external Safety Review Committee's initial findings regarding cases of retinal vasculitis and retinal vascular occlusion occurring during the Phase III HAWK and HARRIER trials.

48. According to the report, out of a total 1,088 patients in premarket clinical trials assigned to Beovu treatment arms, the committee found that 36 (3.3%) experienced retinal vasculitis, 23 (2.1%) of which experienced concomitant vascular occlusion. Risk of ≥ 3 line vision loss and ≥ 6 line vision loss over two years in patients with retinal vasculitis was 22% (8/36) and 14% (5/36), respectively, and in those with occlusive retinal vasculitis was 30% (7/23) and 22% (5/23), respectively.

49. In comparing the external Safety Review Committee's findings to the Beovu Phase III clinical trial data as originally reported by Novartis to the FDA, ASRS commented, "the [Safety Review Committee] found that their observed incidences of both retinal vasculitis and retinal vascular occlusion were higher than the incidences reported by the investigators".

50. Published ahead-of-press on June 20, 2020, just 16 days after the preliminary Safety Review Committee's report was issued, in a publication titled *HAWK and HARRIER: Ninety-Six-Week Outcomes from the Phase 3 Trials of Brolucizumab for Neovascular Age-Related Macular Degeneration*, Dugel et al. (2020) reported on 96-week outcomes from the HAWK and HARRIER Phase III clinical trials. In this updated data set, retinal vasculitis was simply noted to have occurred during the trials, and the treatment assignments and number of patients affected were not reported. Four retinal arterial occlusive events were reported in the Beovu 3mg group and six retinal arterial occlusive events were reported in the Beovu 6mg groups. Total retinal arterial occlusive events occurring in the aflibercept 2mg group were not reported, but one case of retinal artery occlusion coded as a serious adverse event was listed in a table.

51. Dugel and colleagues did make a passing reference to postmarketing cases of intraocular inflammation, vasculitis, and retinal occlusive vasculitis as reported by ASRS, and noted that such reports are currently being investigated by Novartis and an external safety review committee. However, there was no mention by the authors that the safety review committee was reanalyzing the HAWK and HARRIER data and had already found numerous unreported cases of retinal vasculitis and retinal vascular occlusion. It should be noted that while this manuscript was originally submitted for publication in December 2019, it was last revised on June 4, 2020, the same day the Safety Review Committee report was issued, prior to its being accepted for publication by *Ophthalmology* on June 12, 2020.

52. Similar to the earlier publication by Dugel et al. discussed above, Defendant, Novartis Pharma AG funded and "participated in the design of the study; management, analysis, and interpretation of the data; and preparation, review, and approval of the manuscript" for this

updated publication by Dugel and colleagues. Again, two of the authors of the study, Georges Weissgerber, MD and Kinfemichael Gedif, PhD, were employees of Defendant, Novartis Pharma AG, and one or both were noted to have contributed to the conception and design, data collection, analysis and interpretation, and maintained overall responsibility for the study. Accordingly, at all times Defendant maintained control over the study data and manuscript, and thus had the ability to edit, revise, or correct any false or misleading information contained therein, however it chose not to do so.

53. Following its confirmation of a safety signal, Novartis revised the United States product labeling for Beovu on June 9, 2020 to include a new warning regarding the risk of "Retinal Vasculitis and/or Retinal Vascular Occlusion" (§5.2), which reads as follows:

> Retinal vasculitis and/or retinal vascular occlusion, typically in the presence of intraocular inflammation, have been reported with the use of BEOVU [*see Contraindications (4.2) and Adverse Reactions (6.1)*]. Patients should be instructed to report any change in vision without delay.

54. It is yet unclear when this new warning was widely disseminated to physicians utilizing Beovu with their patients.

55. Prior to June 2020, no warnings regarding the risk of retinal vasculitis or retinal vascular occlusion were present in the United States product labeling for Beovu.

56. Data further supporting the causal relationship between administration of Beovu and retinal vasculitis and retinal vascular occlusion injuries have been documented in the peer-reviewed medical literature. Several publications have detailed these adverse health outcomes following Beovu administration since its approval in 2019.

57. For example, in a publication titled *Retinal vasculitis and intraocular inflammation after intravitreal injection of brolucizumab,* Baumal et al. presented a retrospective

case series of retinal vasculitis and intraocular inflammation in 15 eyes from 12 patients following administration of Beovu. All eyes had received previous intravitreal injections of one or more anti-VEGF agents including aflibercept, bevacizumab, and ranibizumab. The diagnosis of retinal vasculitis and intraocular inflammation in this series was made at a mean of 35.5 days (range 14-56 days) in 10 eyes after receiving the first Beovu injection and 20 days (range 7-25 days) in five eyes after receiving more than one Beovu injection. The most severely affected eyes in the series featured occlusion of larger retinal arteries at the optic nerve or branches proximal to the fovea, and demonstrated severe visual loss at 20/200 or worse when vasculitis was diagnosed and showed limited improvement at the most recent follow-up. Authors noted that a history of recent Beovu intravitreal injection combined with examination demonstrating the spectrum of features observed in the case series likely rules out a systemic event, which otherwise could occur in this age group. Baumal and colleagues found that "retinal vasculitis after brolucizumab was typically occlusive and could involve the retinal arteries, veins, and potentially capillaries, with a range in the severity of findings" and declared, "Brolucizumab is the first FDA-approved anti-VEGF agent associated with noninfectious retinal vasculitis after intravitreal therapy".

58. In another retrospective case series by the ASRS Research and Safety in Therapeutics ("ReST") Committee titled *Occlusive retinal vasculitis following intravitreal brolucizumab*, Witkin et al. analyzed the characteristics of 26 post-marketing cases of retinal vasculitis following intravitreal Beovu administration in 25 patients which were reported to ASRS through April 1, 2020. In this study, retinal vasculitis presented after one Beovu injection in 11 (42%) eyes, after two injections in 11 (42%) eyes, and after three injections in four (16%) eyes. Authors noted that 22 (85%) eyes were reported by the treating physician as having occlusive vasculitis, with a mean time to presentation of 26 days (range, 3-63 days) from the

most recent Beovu injection, and 46 days (range, 15-146 days) from the first Beovu injection. All patients had previously been treated with other anti-VEGF agents with no history of anti-VEGF-associated inflammation, and no Beovu injections were given in the presence of intraocular inflammation according to the reporting physicians. Of note, 20 (77%) patients included in this case series were stated to have switched from other VEGF inhibitors to Beovu for the purpose of "Extend[ing] treatment interval", consistent with Novartis' marketing efforts. Authors also noted that they found no identifiable associations with product lot numbers, as these events were reported with Beovu from eight different lots administered by 20 different physicians, and expressed that there was no indication of an association with any ocular disorders, autoimmune diseases, drug allergies, or other medical disorders, ruling out alternative causation.

59. Despite the clear risk of post-injection retinal vasculitis and vascular occlusion, the 13-member ReST Committee, five of whom have stock ownership in, receive fees or research support from, or serve as consultants to Novartis, did not recommend against continued use of Beovu. However, they did advise, "Because of the potentially severe nature of the consequences of retinal vasculitis secondary to brolucizumab, caution is advised when considering injection of brolucizumab in monocular patients or when bilateral injections are being contemplated".

60. The findings of the external Safety Review Committee, previously discussed above, were formally published in November 2020 in an article titled *Risk of Inflammation, Retinal Vasculitis and Retinal Occlusion-Related Events with Brolucizumab: Post-Hoc Review of HAWK and HARRIER*. In addition to reiterating the data previously disclosed in the June 2020 report, Mones et al. provided additional detail and context to the events of retinal vasculitis and retinal vascular occlusion that occurred in the clinical trials for Beovu. The authors took care to

emphasize that their review was limited only to the 60 patients for whom investigators reported intraocular inflammation and did not include all patients enrolled in the clinical trials. As such, they noted "Additional cases may have been identified if the SRC had applied the conservative review to all patients in the two studies" and stated "The actual event rate may have been higher than reported by the investigators, particularly if some of the cases were minimally symptomatic or asymptomatic". Based on the data that was made available to the committee, there were eight cases of at least moderate visual acuity loss (≥15 ETDRS letters) among eyes with definite or probable intraocular inflammation, five of which were severe (≥30 ETDRS letters), and seven of these cases occurred in eyes with definite or probable intraocular inflammation with concomitant retinal vasculitis and retinal vascular occlusion. In eyes with definite or probable intraocular inflammation, the incidence of retinal vasculitis was 72.0%; in eyes with intraocular inflammation and retinal vasculitis, the incidence of retinal occlusion was 63.9%. Approximately three quarters of cases of each event occurred within six months of the first Beovu injection, and half of cases occurred within the first three months following the first Beovu injection. Mones et al. discussed some of the limitations of the imaging performed by the study investigators and made available for their review, commenting that "fluorescein angiograms were usually not widefield and limited in number, preventing the assessment of peripheral vasculitis signs and retinal blood flow". Authors concluded, "this rigorous analysis of cases of definite/probable IOI that occurred in the phase 3 HAWK and HARRIER clinical trials identified a number of cases with signs of retinal vasculitis with or without signs of retinal vascular occlusion, and such events were associated with increased risk of visual acuity loss".

61. Case reports describing patients who experienced retinal vasculitis and/or retinal vascular occlusive events following intravitreal administration of Beovu have also been

published in the peer-reviewed medical literature.

62. In an article titled *Retinal arterial occlusive vasculitis following intravitreal brolucizumab administration*, Haug et al. presented a published report of vascular occlusion with vasculitis after intravitreal injection of Beovu for wet AMD. The patient, who had received multiple intravitreal ranibizumab treatments previously in both eyes without complication, reported loss of vision with light sensitivity in both eyes four weeks after bilateral intravitreal Beovu injection. After excluding other potential etiologies, and given the temporal relationship with administration of Beovu, the patient in this case was diagnosed with "possible delayed or type IV hypersensitivity to brolucizumab".

63. In a publication titled *Severe vision loss secondary to retinal arteriolar occlusion after multiple intravitreal brolucizumab administrations*, Jain et al. reported on a patient who presented with sudden blurry vision and floaters without pain or redness following her third injection of Beovu. The patient had previously received treatment with bevacizumab, ranibizumab, and aflibercept without incident. Upon examination the patient was found to have multiple retinal arteriolar occlusions which caused "severe loss of vision". After a thorough work-up and exclusion of other potential causal factors, the patient was ultimately diagnosed with "retinal arteriolar occlusion associated with repeated intravitreal brolucizumab administrations".

64. In their discussion, Jain et al. pointed out that data from the HAWK and HARRIER clinical trials as presented at the 43rd Annual Meeting of the Macula Society indicated six cases of retinal artery occlusion (including terms of retinal artery thrombosis, retinal artery occlusion, and retinal artery embolism) occurred in the brolucizumab 6mg patients. They then made the observation that these data were "different than the published Phase 3 data

of the HAWK and HARRIER studies which reported only 3 cases of retinal artery occlusion/thrombosis".

65. In a publication titled *Retinal Vasculitis After Administration of Brolucizumab Resulting in Severe Loss of Visual Acuity*, Kondapalli et al. reported on a patient who experienced immediate blurry vision with clinically-significant boxcarring of the retinal arteries following her second injection of Beovu. This patient had previously been treated with bevacizumab and aflibercept without experiencing any intraocular inflammation or other complications. The patient was noted to have no visual improvement at her most recent follow-up, approximately five weeks post-injection. Fungal and viral etiologies were ruled out, and the patient was diagnosed with "occlusive retinal vasculitis associated with intravitreal administration of brolucizumab in the setting of neovascular age-related macular degeneration".

66. In a publication titled *Brolucizumab-related retinal vasculitis with exacerbation following ranibizumab retreatment: A clinicopathologic case study*, Iyer et al. described a case involving a patient who was found to have retinal vasculitis and intraocular inflammation after presenting with pain, ocular aches, floaters and decreased visual acuity one week following her third injection of Beovu. As with other reports, this patient had previously received regular intravitreal treatments with bevacizumab, aflibercept, and ranibizumab without incident. In discussing the matter, authors commented, "Retinal occlusive vasculitis with intraocular inflammation has been a devastating adverse event for brolucizumab, leading to blinding visual outcomes for many patients. Although intraocular inflammation has been seen with other anti-VEGF medications, severe vision loss due to retinal occlusive vasculitis has not been reported."

67. Based on the significant safety issue related to retinal vasculitis and retinal artery occlusion, Rosenfeld & Browning explained in their recent editorial titled *Is This a 737 Max*

Moment for Brolucizumab?, "[w]e have stopped using brolucizumab because of the associated inflammation. Our patients have alternatives without incurring this risk". Making note of the unusual nature of the inflammation in that it is associated with "occlusive vasculitis and irreversible severe vision loss", they pointed out that "[t]he retinal community had not reported this type of vision-threatening occlusive retinal vasculitis after intravitreal injections of other commonly used anti-VEGF drugs". Finally, the authors stressed, "[I]t is our view that intravitreal injections of brolucizumab should stop. Brolucizumab is not the only drug that can be used for the treatment of eAMD. In the face of the known risk, its use is unwarranted."

68. In response to the Rosenfeld & Browning editorial, Kayath & Sauer (two Novartis employees) used a public platform to attempt to defend Novartis' handling of the matter and made clear that Novartis did not appreciate independent ophthalmologists shedding light on the undisclosed safety issues with Beovu and advising against its further use. The authors noted, "we believe the choice of treatment should ultimately be left to individual treating physicians and their patients, after appropriate evaluation of the benefit-risk profile of the product" and "[a]t Novartis, we support individual physicians, who we believe, whether or not they choose to use brolucizumab, are able to make the best treatment choices for their patients". At no point in this published response did these Novartis employees take responsibility or apologize for their failure to present accurate data concerning adverse events in clinical trials or for putting patients at risk for severe vision loss that otherwise could have been prevented had they not been exposed to Beovu.

69. Rosenfeld & Browning subsequently issued a reply criticizing the published response letter by Kayath & Sauer. The authors pointed out that "Their letter fails to disclose the recent clarifications in the HAWK and HARRIER trial data, and by doing so they fail to reveal

the true risks and benefits for the patients who might be given brolucizumab". Noting that the external Safety Review Committee found that incidences of retinal vasculitis and retinal vascular occlusion were higher in the HAWK and HARRIER trials than previously reported, Rosenfeld & Browning commented, "[t]hese data, and the discrepancy from the previously released results, in addition to the cases arising from the community use of brolucizumab, raise red flags". In response to Novartis' contention that the overall rate of vision loss was comparable between Beovu and aflibercept groups in the clinical trials, the authors noted that "this comparison is flawed", and such an assessment must instead be "based on the risk of vision loss from the drug and not from the natural history of disease progression after anti–vascular endothelial growth factor injections". Mirroring their statements in the original editorial, Rosenfeld & Browning commented "we believe that the benefits of brolucizumab are not worth the risks compared with similarly effective therapies that do not have the same risk of an occlusive vasculitis" and stated "we reiterate our recommendation that a moratorium be imposed on the use of brolucizumab until the cause is discovered for these inflammatory side effects and until remedies are devised". The authors finally declared, "It comes down to a simple question for Novartis and the vitreoretinal community: how many more patients need to lose vision before this moratorium is implemented?"

70. Echoing the concerns expressed by Rosenfeld & Browning, other retinal practices have also made the decision not to use Beovu in light of the significant safety issues involving retinal vasculitis and retinal vascular occlusion. For example, California-based The Retina Partners explained in a recent article, "Given that other safe and effective therapies exist for neovascular AMD, and that we currently have no way of predicting who will be affected by occlusive vasculitis, we have elected to avoid Beovu until safety can be demonstrated". They

further noted, "many retina specialists, including our group, believe that odds of 1 in 50 that an injection could result in vascular occlusion is unacceptable – especially when some of these patients will end up with severely and permanently reduced visual acuity, and/or scotoma".

71. Researchers have identified biologically plausible mechanisms though which Beovu can cause retinal vasculitis and/or retinal vascular occlusion events.

72. Various hypotheses have been proposed, including that the pathogenic mechanism involves the formation of local antibodies, or patient factors such as prior anti-VEGF treatment use, human leukocyte antigens, immune status, and causative comorbidities are potential culprits.

73. According to Novartis, "The proprietary innovative structure results in a small molecule (26 kDa) with potent inhibition of, and high affinity to, all VEGF-A isoforms. Beovu is engineered to deliver a high concentration of drug, thus providing more active binding agents."

74. Given these unique attributes, certain researchers have proposed that the distinct molecular structure of Beovu is responsible for the events of retinal vasculitis and retinal vascular occlusion. As noted by Jain et al. in *Severe vision loss secondary to retinal arteriolar occlusion after multiple intravitreal brolucizumab administrations*, "[i]t could be theorized that the observed adverse event is attributed to the more potent VEGF blockade, owing to the properties of the brolucizumab molecule." Similarly, in *Occlusive retinal vasculitis following intravitreal brolucizumab,* Witkin et al. stated "[i]t is possible that because of its more potent anti-VEGF effect, brolucizumab may have a high enough anti-VEGF effect to cause retinal arteriolar constriction and occlusive vasculopathy compared with other anti-VEGF agents."

75. In a publication titled *Brolucizumab-related retinal vasculitis with exacerbation following ranibizumab retreatment: A clinicopathologic case study*, Iyer et al. also discussed the potential for the unique characteristics of Beovu to confer greater immunological effects than

other VEGF inhibitor products, as they postulated "Brolucizumab may be more immunogenic than other anti-VEGF agents by virtue of its relative small size and consequent ability to unfold which exposes epitopes that may not be recognized by the immune system. Alternatively during the post-translational modification process of protein fragments like brolucizumab, structural changes such as cleavage and cross-linking of the protein may result in the creation of new protein epitopes. These new protein structures could lead to formation of aggregates, which can significantly enhance immunogenicity."

76. Several researchers have also proposed that the retinal vasculitis and/or retinal vascular occlusion observed following exposure to Beovu is potentially a result of a type III or type IV hypersensitivity reaction.

77. A hypersensitivity reaction is an inappropriate or over-reactive immune response to an antigen resulting in undesirable effects in the human body. In a type III hypersensitivity reaction, an abnormal immune response is mediated by the formation of antigen-antibody aggregates called immune complexes, which can precipitate in various tissues and trigger the classical complement pathway. Complement activation leads to the recruitment of inflammatory cells that release lysosomal enzymes and free radicals at the site of immune complexes, causing tissue damage. A type IV hypersensitivity reaction, also referred to as a delayed hypersensitivity reaction because it takes more than 12 hours to develop, is mediated by T cells that provoke an inflammatory reaction against exogenous or endogenous antigens. After antigen exposure, an initial local immune and inflammatory response occurs that attracts leukocytes. Then the antigen, engulfed by macrophages and monocytes, is presented to T cells, which then becomes sensitized and activated. Type IV drug hypersensitivity occurs when various drug particles bind to a T cell receptor, even if not metabolized by antigen-presenting cells or

presented by major histocompatibility complex molecules.

78. Pathologic findings in patients presenting with retinal vasculitis and/or retinal vascular occlusion following Beovu administration that support the plausibility of a type III or type IV delayed hypersensitivity reaction include the presence of anti-drug antibodies and elevated T cells and B cells.

79. According to Iyer et al., "Among findings favoring type III hypersensitivity are frequent demonstration of anti-drug antibodies in the Hawk and Harrier trials, delayed onset retinal vasculitis, and some clinical overlap with hemorrhagic occlusive retinal vasculitis which is also postulated to involve type III hypersensitivity." The case reported by Iyer and colleagues also demonstrated the presence of both T cells and B cells in vitreous sample staining.

80. Regarding the Phase III clinical trials for Beovu, the FDA also found, "Among subjects with treatment-emergent antibodies, a higher number of intraocular inflammation events were observed".

81. Novartis has also commented on anti-drug antibodies observed during clinical trials, noting "In a post-hoc unmasked assessment of the Phase III HAWK and HARRIER data, there was an observed trend toward increased incidence of [retinal vasculitis and/or retinal vascular occlusion] in patients with treatment emergent (boosted/induced) anti-drug antibodies (ADAs)".

82. Beovu is a monoclonal antibody, which are complex, laboratory-made proteins that mimic the body's immune system in order to fight off infections or suppress disease processes, and may cause immunogenicity. As pointed out by Sharma et al. in their publication *Brolucizumab and immunogenicity*, "Type III hypersensitivity reactions (HSR) to the [monoclonal antibodies] including anti-VEGF agents used for oncological indications have been

reported to cause vasculitis".

83. The case of abicipar pegol also serves as a strong analogy to the instant matter. Abicipar pegol is an investigational anti-VEGF therapy currently under joint development by Allergan and Molecular Partners for the treatment of patients with wet AMD. Similar to Beovu, abicipar pegol has a small molecular weight of 32 kDa, has been shown to have high affinity for binding with its cellular targets, and has demonstrated a longer period of effectiveness when compared with older VEGF inhibitors at equal molar doses, allowing for longer dosing intervals. Drawing a comparison between Beovu and abicipar pegol, in a publication titled *Brolucizumab-related retinal vasculitis: emerging disconnect between clinical trials and real world*, Sharma et al. (2020) noted, "[t]he common aspect of these molecules is the low molecular weight, a different structure compared to the previous anti-VEGF molecules, and the occurrence of an emerging phenomenon of retinal vasculitis in the phase 3 trials."

84. On June 26, 2020 Allergan and Molecular Partners announced that the FDA had issued a Complete Response Letter concerning the BLA for abicipar pegol in which the agency indicated "the rate of intraocular inflammation observed following administration of Abicipar pegol 2mg/0.05 mL results in an unfavorable benefit-risk ratio in the treatment of neovascular (wet) age-related macular degeneration (AMD)". Incidence of intraocular inflammation adverse events in the two Phase III pivotal trials for abicipar pegol, CEDAR and SEQUOIA, was 15.4%, 15.3%, and 0.3% in the abicipar Q8, abicipar Q12, and ranibizumab Q4 groups, respectively.

85. A review of the safety data from CEDAR and SEQUOIA demonstrates a similar trend to Beovu whereby a significantly greater number of adverse events involving retinal vasculitis and retinal arterial occlusion were reported in the abicipar pegol-treated group compared to the active comparator group treated with ranibizumab. Retinal vascular occlusion

(coded as retinal artery occlusion or retinal vein occlusion) was reported in eight patients assigned to abicipar pegol groups in CEDAR and SEQUOIA while only one patient assigned to ranibizumab experienced retinal vasculitis. Retinal vasculitis was reported in 17 patients assigned to abicipar pegol groups in CEDAR and SEQUOIA while no patients assigned to ranibizumab experienced retinal vasculitis.

86. Given the significant underreporting of retinal vasculitis and retinal vascular occlusion by Novartis from its clinical trials it remains questionable whether the FDA would have even approved Beovu had these rates been properly reported to the agency at the time the drug was being evaluated for approval.

87. In addition to misreporting the safety data from the HAWK and HARRIER clinical trials as demonstrated by the external Safety Review Committee reanalysis, Novartis has misled healthcare providers and the public by consistently downplaying the frequency at which retinal vasculitis and/or retinal vascular occlusion adverse events have occurred in patients treated with Beovu.

88. On March 2, 2020, Novartis issued a press release regarding "reported cases of severe vision loss, inflammation and potential retinal vasculitis in patients treated with Beovu" in which it stated, "[w]e believe the incidence of these events remains consistent with or below the package insert".

89. Again, on March 11, 2020, Novartis issued a press release in which it stated "[t]he rate of the reported post-marketing events remains consistent with or below the approved prescribing information". However, during March 2020 the United States prescribing information cited an incidence rate of 1% for retinal artery occlusion occurring in the HAWK and HARRIER clinical trials and cited no incidence rate for, nor made any reference to retinal

vasculitis.

90. In April 2020, Novartis' Chief Executive Officer Vas Narasimhan, citing the incidence of these adverse events, was quoted as stating they are "very rare, with about 1 to 2 cases in 10,000 injections". Despite this statement citing an incidence rate even lower than Novartis had cited just the month prior, Novartis nonetheless issued another press release on April 8, 2020 in which it stated that it was initiating an update to the prescribing information for Beovu after it "concluded that there is a confirmed safety signal of rare adverse events of 'retinal vasculitis and/or retinal vascular occlusion that may result in severe vision loss'".

91. Also wildly inconsistent with Novartis' earlier statements, as reported by BioPharma Dive on April 9, 2020, after a review of Beovu postmarketing data "Novartis found retinal artery occlusion, inflammation of blood vessels in the eye — known as vasculitis — or severe vision loss occurred in 8.75 to 10.08 out of 10,000 injections for five weeks spanning Feb. 28 to March 27".

92. Following the emergence of the safety issues discussed herein, Novartis created a webpage which provides data on the incidence of events of retinal vasculitis and retinal vascular occlusion which have been reported in the postmarketing setting since October 2019. By reviewing the data presented on this website, it can be seen that Novartis has consistently downplayed and continues to downplay the frequency with which these adverse events have actually occurred in patients treated with Beovu, and that the frequency at which these events are occurring continues to rise.

93. As of July 24, 2020, Novartis' postmarketing data website for Beovu cited the following incidence rates for the adverse events of interest: 2.73 reports of retinal vasculitis per 10,000 injections; 2.64 reports of retinal vascular occlusion per 10,000 injections; 4.76 reports of

concomitant retinal vasculitis and retinal vascular occlusion per 10,000 injections; and when all categories are combined, 10.13 reports of retinal vasculitis, retinal vascular occlusion, or retinal vasculitis with retinal vascular occlusion per 10,000 injections.

94. As of September 25, 2020, Novartis' postmarketing data website for Beovu cited the following incidence rates for the adverse events of interest: 4.50 reports of retinal vasculitis per 10,000 injections; 3.00 reports of retinal vascular occlusion per 10,000 injections; 6.14 reports of concomitant retinal vasculitis and retinal vascular occlusion per 10,000 injections; and when all categories are combined, 13.64 reports of retinal vasculitis, retinal vascular occlusion, or retinal vasculitis with retinal vascular occlusion per 10,000 injections.

95. As of October 23, 2020, Novartis' postmarketing data website for Beovu cited the following incidence rates for the adverse events of interest: 5.13 reports of retinal vasculitis per 10,000 injections; 3.22 reports of retinal vascular occlusion per 10,000 injections; 6.12 reports of concomitant retinal vasculitis and retinal vascular occlusion per 10,000 injections; and when all categories are combined, 14.50 reports of retinal vasculitis, retinal vascular occlusion, or retinal vasculitis with retinal vascular occlusion per 10,000 injections.

96. As of November 20, 2020, Novartis' postmarketing data website for Beovu cited the following incidence rates for the adverse events of interest: 5.08 reports of retinal vasculitis per 10,000 injections; 3.24 reports of retinal vascular occlusion per 10,000 injections; 7.16 reports of concomitant retinal vasculitis and retinal vascular occlusion per 10,000 injections; and when all categories are combined, 15.47 reports of retinal vasculitis, retinal vascular occlusion, or retinal vasculitis with retinal vascular occlusion per 10,000 injections.

97. As of June 30, 2020, the same month the Beovu product labeling was revised to add a warning regarding retinal vasculitis and/or retinal vascular occlusion, 85 cases of retinal

vasculitis and 3 cases of ocular vasculitis had been reported to FAERS wherein Beovu was identified as the suspect product. Beovu was also identified as the suspect product in 43 cases of retinal artery occlusion, 38 cases of retinal vascular occlusion, and 3 cases of retinal vein occlusion reported to FAERS as of June 30, 2020. These numbers have been reported, although based on well-established reporting principles, these numbers vastly underestimate the true number of these events occurring in Beovu users. Further, as specifically noted by Mones et al. in their publication regarding Beovu-related retinal vasculitis and retinal vascular occlusion, when it comes to postmarketing adverse event data, there is a "considerable possibility of underreporting".

98. Consistent with the large and growing body of evidence demonstrating a causal relationship between Beovu and retinal vasculitis and retinal vascular occlusion, and that Beovu confers a greater risk of vision-threatening inflammatory adverse effects than alternative anti-VEGF treatments, Novartis has itself admitted to such an association. In a Novartis-funded and authored review titled *Brolucizumab: evolution through preclinical and clinical studies and the implications for the management of neovascular age-related macular degeneration*, Nguyen et al. admit to the causal relationship between Beovu and the injuries complained of herein, stating, "Amidst the reports of ocular inflammation, including occlusive retinal vasculitis with significant visual loss, ***that is associated with brolucizumab administration*** in eyes with neovascular AMD" (emphasis added).

99. As a direct and proximate result of the dangerous and defective nature of Beovu as described herein, Plaintiff suffered severe bodily injury, and resulting pain and suffering, disability, disfigurement, mental anguish, loss of capacity for the enjoyment of life, expense of hospitalization, medical and treatment. The losses are permanent and Plaintiff will continue to

suffer the losses in the future.

FIRST CAUSE OF ACTION
STRICT LIABILITY – FAILURE TO WARN

100. Plaintiffs incorporate by reference herein each of the allegations heretofore set forth in this Complaint as though fully set forth herein.

101. At all times relevant hereto, Beovu was defective and unreasonably dangerous when it left the possession of Defendants in that it failed to contain warnings of an adequate or sufficient nature as to alert consumers and physicians, including Plaintiff and Plaintiff's healthcare providers, to the dangerous risks associated therewith, including, but not limited, to its propensity to cause serious and permanent eye injuries including those which Plaintiff sustained. These risks and dangers were known and/or reasonably knowable by Defendants prior to and during the time which Plaintiff was prescribed and ingested Beovu.

102. At all times relevant hereto, Defendants failed to provide sufficient warnings and instructions that would have put the general public, including Plaintiff and Plaintiff's physicians, on notice of the dangers and adverse effects caused by ingestion of Beovu, including, but not limited to intraocular inflammation, retinal vasculitis, retinal vascular occlusion, and other serious vision problems.

103. Defendants failed to provide warnings of such risks and dangers to Plaintiff and Plaintiff's healthcare providers as described herein, and further, concealed the known risks and dangers and failed to warn of known or scientifically knowable risks and dangers associated with Beovu from patients, the medical community, and consumers, including Plaintiff, and Plaintiff's healthcare providers.

104. Plaintiff was prescribed and did ingest Defendants' Beovu in a manner consistent with and as intended by Defendants.

105. Ordinary patients and consumers, such as Plaintiff, could not have discovered or recognized any relevant potential risks and dangerous defects in Defendants' Beovu through the exercise of reasonable care within their capacity.

106. Defendants, as entities materially involved in the development, testing, manufacture, sale and/or distribution of Beovu, are held to the level of knowledge of an expert in the field.

107. Plaintiff individually, and through her prescribing physician, reasonably relied upon the skill, superior knowledge, and judgment of Defendants.

108. Despite their possession of knowledge regarding these risks and a their duty to adequately warn of severe and dangerous adverse events associated with use of Beovu, Defendants failed to properly warn the medical community and consumers, including Plaintiff and Plaintiff's healthcare providers, that use of Beovu was associated with an increased risk of serious vision problems including intraocular inflammation, retinal vasculitis, retinal vascular occlusion, and other serious vision problems.

109. Beovu was designed, manufactured, distributed, sold and/or supplied by Defendants, and was marketed while defective due to inadequate warnings, instructions, labeling and/or inadequate testing in light of Defendants' knowledge of Beovu's innate risks and dangers and attributable serious vision related adverse events.

110. As a direct and proximate result of the dangerous and defective nature of Beovu, Plaintiff suffered central retinal artery occlusion and other serious eye injuries, and resulting pain and suffering, disability, disfigurement, mental anguish, loss of capacity for the enjoyment of life, expense of hospitalization, and medical treatment. The losses are permanent and the Plaintiff will continue to suffer the losses in the future.

SECOND CAUSE OF ACTION
NEGLIGENCE

111. Plaintiff incorporates by reference herein each of the allegations heretofore set forth in this Complaint as though fully set forth herein.

112. At all times relevant hereto, Defendants were under a duty to exercise reasonable care in advertising, analyzing, assembling, compounding, designing, developing, distributing, formulating, inspecting, labeling, manufacturing, marketing, packing, producing, promoting, processing, researching, selling, and testing Beovu to ensure that use of Beovu did not result in avoidable injuries.

113. At all times relevant hereto, Defendants owed a duty to consumers, physicians, and the general public to assess, manage, and communicate the risks, dangers, and adverse effects of Beovu, and to warn consumers and the medical community, including Plaintiff and Plaintiff's healthcare providers, of those risks, dangers, and adverse effects.

114. Defendants' duties include, but are not limited to, carefully and properly advertising, analyzing, assembling, compounding, designing, developing, distributing, formulating, inspecting, labeling, manufacturing, marketing, packing, producing, promoting, processing, researching, selling, and testing Beovu, which was placed in the stream of commerce, and providing adequate information regarding the appropriate use of Beovu.

115. Defendants negligently breached the above-described duties to Plaintiff by committing negligent acts and/or omissions, including, but not limited to the following:

a. failing in their obligation to provide consumers and the medical community, including Plaintiff and Plaintiff's healthcare providers, with accurate, adequate and clinically relevant information, data and warnings regarding the adverse health risks associated with use of Beovu, and/or that there existed safer alternative pharmaceutical drugs to treat AMD;

b. failing to continually monitor, test, and analyze data regarding safety, efficacy, and the prescribing practices for Beovu;

c. failing to review all adverse drug event information and to report any information bearing upon the adequacy and/or accuracy of its warnings, efficacy, or safety, including the risks and/or prevalence of side effects caused by Beovu to consumers and the medical community, including Plaintiff and Plaintiff's healthcare providers;

d. failing to provide adequate post-marketing warnings and instructions after Defendants knew or should have known of the significant risks of, among other things, adverse vision-related events and/or reactions, including, but not limited to an increased risk for intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems associated with use of Beovu;

e. failing to review all medical literature regarding Beovu and failing to report data regarding the adequacy and/or accuracy of its warnings, efficacy, or safety of Beovu;

f. failing to disclose the results of the testing and other information in their possession regarding the potential for Beovu to cause vision-related adverse events including, but not limited to, an increased risk for intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems;

g. representing that Beovu was safe for use when, in fact, Defendants knew or should have known that it was unsafe for use and that Beovu use was associated with vision-related events and/or reactions, including, but not limited to an increased risk for intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems;

h. promoting and marketing Beovu for use despite the fact that Defendants knew or should have known that Beovu use was associated with vision-related adverse events and/or reactions, including, but not limited to an increased risk for intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems;

i. promoting and marketing Beovu as safe and effective for use when, in fact, it was unsafe, especially as compared to other available therapies to treat AMD;

j. failing to act as reasonably prudent drug manufacturers in advertising, analyzing, assembling, compounding, designing, developing, distributing, formulating, inspecting, labeling, manufacturing, marketing, packaging, producing, promoting, processing, researching, selling, and testing Beovu;

k. failing to exercise ordinary care in advertising, analyzing, assembling,

compounding, designing, developing, distributing, formulating, inspecting, labeling, manufacturing, marketing, packing, producing, promoting, processing, researching, selling, and testing Beovu so as to reveal and communicate the risk of vision-related adverse events and/or reactions, including, but not limited to, an increased risk for intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems to consumers and the medical community, including Plaintiff and Plaintiff's healthcare providers;

l. failing to conduct adequate post-marketing studies, non-clinical and clinical testing, and post-marketing surveillance and analyses to determine and subsequently communicate the safety profile and side effects associated with the use of Beovu;

m. continuing to promote the safety and effectiveness of Beovu while downplaying its risks, even after Defendants knew or should have known of the significant risks of Beovu use;

n. failing to provide consumers and the medical community, including Plaintiff and Plaintiff's healthcare providers, with scientific data which indicated that Beovu was unreasonably dangerous due to its propensity to cause vision-related adverse events including, but not limited to, an increased risk for intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems;

o. negligently and carelessly over-promoting Beovu in a zealous and unreasonable manner, without regard for the potential dangers which it posed to users; and/or

p. failing to adequately test Beovu on patients that had a prior history of VEGF use especially in light of the plan to market precisely to that population of patients.

116. Although Defendants knew or should have known that Beovu causes unreasonably dangerous side effects, including an increased risk for intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems, they continue to market Beovu, despite the fact there are safer and more or equally effective alternative therapies to treat AMD.

117. Defendants knew or should have known that failure to exercise ordinary care, as described herein, would result in serious injury to patients, such as Plaintiff.

118. As a direct and proximate result of the dangerous and defective nature of Beovu Plaintiff suffered central retinal artery occlusion and other serious eye injuries, and resulting pain

and suffering, disability, disfigurement, mental anguish, loss of capacity for the enjoyment of life, expense of hospitalization, and medical care and treatment. The losses are permanent and the Plaintiff will continue to suffer the losses in the future.

THIRD CAUSE OF ACTION
FRAUDULENT MISREPRESENTATION

119. Plaintiff incorporates by reference herein each of the allegations heretofore set forth in this Complaint as though fully set forth herein.

120. Defendants' fraudulent, intentional and material misrepresentations and omissions regarding the safety and efficacy of Beovu and of Beovu's side effects, including that concerning an increased risk for intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems were communicated to Plaintiffs directly through promotional materials, advertising, product inserts, and the product monograph with the intent that Plaintiff use Beovu. The safety and efficacy of Beovu was also fraudulently and intentionally misrepresented to Plaintiff's healthcare providers with the intent that such misrepresentations would result in Beovu being prescribed and administered to Plaintiff.

121. Defendants knew that the material representations they were making regarding the safety, efficacy, and side effects of Beovu were false.

122. Defendants fraudulently and intentionally made misrepresentations and/or actively concealed, suppressed, or omitted this material information with the intention and specific desire to induce consumers and the medical community, including Plaintiff and Plaintiff's healthcare providers, to use, prescribe, and purchase Beovu.

123. Defendants fraudulently and intentionally knew that Plaintiff and/or Plaintiff's healthcare providers would rely upon such material misrepresentations and/or omissions in selecting Beovu for the treatment of Plaintiff.

124. Defendants made these material misrepresentations and/or omissions and actively concealed adverse information at a time when they, their agents and/or their employees knew that Beovu had certain defects, dangers, and characteristics that differed from what had been represented to the medical community and the consuming public, including Plaintiff's healthcare providers and Plaintiff. Those misrepresentations and omissions include, but are not limited to, the following:

a. Defendants failed to disclose or actively concealed the fact that their preclinical and premarket clinical testing, and post-marketing surveillance was inadequate to sufficiently determine the safety and side effects of Beovu;

b. Defendants failed to disclose or actively concealed data demonstrating that Beovu increased the risk of vision-related adverse events including, but not limited to, intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems;

c. Defendants failed to include or provide adequate warnings along with Beovu regarding potential and established risks, and the nature, scope, severity, and duration of any serious side effects of Beovu use, including, but not limited to, an increased risk of intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems, when compared to other available therapies to treat AMD;

d. Defendants concealed and misrepresented, and continue to conceal and misrepresent, past and present facts of which Defendants were aware, and concealed their knowledge of a link between the use of Beovu and dangerous side effects, including the increased risk of intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems, to consumers and the medical community, including Plaintiff and Plaintiff's healthcare providers;

e. Defendants misrepresented the number of retinal vasculitis, retinal vascular occlusion, and intraocular inflammation adverse events suffered by patients in the Beovu clinical trials; and/or

f. Defendants promoted Beovu as a safe and effective treatment for patients with a prior history of using other anti-VEGF therapies despite the fact that the Defendants had not properly studied Beovu in that patient population.

125. Defendants' material misrepresentations and/or active concealment, suppression, and omissions were perpetuated directly and/or indirectly by Defendants, their sales

representatives, employees, distributors, agents and/or detail persons, through databases, printouts, monographs, product labeling and other information drafted, prepared, marketed, sold, and supplied by Defendants, their sales representatives, employees, distributors, agents and/or detail persons.

126. Defendants' material misrepresentations and/or active concealment, suppression, and omissions constitute a continuing tort.

127. Through its product inserts and other public statements, Defendants continue to misrepresent the serious potential vision-related risks and complications associated with use of Beovu.

128. Defendants had a post-sale duty to timely warn physicians including Plaintiff's healthcare providers, and consumers, such as Plaintiffs, about the potential risks and complications associated with use of Beovu.

129. Defendants fraudulently and intentionally misrepresented the safety and efficacy of Beovu in their labeling, advertising, product inserts, promotional materials, or other marketing resources and materials.

130. If Plaintiff's healthcare providers and Plaintiff had known the true facts concerning the risks of Beovu use, in particular, the risk of vision-related adverse events and/or reactions, including, but not limited to an increased risk for intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems, they would not have prescribed or used Beovu and would have instead prescribed and used a safer alternative pharmaceutical drug or no drug at all.

131. Plaintiff and Plaintiff's healthcare providers' reliance upon Defendants' material misrepresentations were justified, among other reasons, because said misrepresentations and

omissions were made by individuals and entities who were in a position of knowledge of the true facts concerning Beovu, while Plaintiff and Plaintiff's healthcare providers were not in a position to know the true facts concerning Beovu, and because Defendants overstated the benefits and safety of Beovu, and concomitantly downplayed the risks of its use, including, but not limited to, an increased risk for intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems, thereby inducing Plaintiff's healthcare providers to prescribe and Plaintiff to use Beovu, in lieu of other safer alternatives, or no drug at all.

132. As a direct and proximate result of the dangerous and defective nature of Beovu Plaintiff suffered central retinal artery occlusion and other serious eye injuries, and resulting pain and suffering, disability, disfigurement, mental anguish, loss of capacity for the enjoyment of life, expense of hospitalization, and medical care and treatment. The losses are permanent and the Plaintiff will continue to suffer the losses in the future.

FOURTH CAUSE OF ACTION
NEGLIGENT MISREPRESENTATION

133. Plaintiff incorporates by reference herein each of the allegations heretofore set forth in this Complaint as though fully set forth herein.

134. Defendants' negligent material misrepresentations and omissions regarding the safety and efficacy of Beovu and of Beovu's side effects, including that concerning an increased risk for intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems were communicated to Plaintiffs directly through promotional materials, advertising, product inserts, and the product monograph with the intent that Plaintiff use Beovu. The safety and efficacy of Beovu was also negligently misrepresented to Plaintiff's healthcare providers with the intent that such misrepresentations would result in Beovu being prescribed and administered to Plaintiff.

135. Defendants either knew or should have known that the material representations they were making regarding the safety, efficacy, and side effects of Beovu were false.

136. Defendants negligently made misrepresentations and/or actively concealed, suppressed, or omitted this material information with the intention and specific desire to induce consumers and the medical community, including Plaintiff and Plaintiff's healthcare providers, to use, prescribe, and purchase Beovu.

137. Defendants negligently knew or should have known that Plaintiff and/or Plaintiff's healthcare providers would rely upon such material misrepresentations and/or omissions in selecting Beovu for the treatment of Plaintiff.

138. Defendants made these material misrepresentations and/or omissions and actively concealed adverse information at a time when they, their agents and/or their employees knew or should have known that Beovu had certain defects, dangers, and characteristics that differed from what had been represented to the medical community and the consuming public, including Plaintiff's healthcare providers and Plaintiff. Those misrepresentations and omissions further include, but are not limited to, the following:

a. Defendants failed to disclose or actively concealed the fact that their preclinical and premarket clinical testing, and post-marketing surveillance was inadequate to sufficiently determine the safety and side effects of Beovu;

b. Defendants failed to disclose or actively concealed data demonstrating that Beovu increased the risk of vision-related adverse events including, but not limited to, intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems;

c. Defendants failed to include or provide adequate warnings along with Beovu regarding potential and established risks, and the nature, scope, severity, and duration of any serious side effects of Beovu use, including, but not limited to, an increased risk of intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems, when compared to other available therapies to treat AMD;

d. Defendants concealed and misrepresented, and continue to conceal and misrepresent, past and present facts of which Defendants were aware, and concealed their knowledge of a link between the use of Beovu and dangerous side effects, including the increased risk of intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems, to consumers and the medical community, including Plaintiff and Plaintiff's healthcare providers;

e. Defendants misrepresented the number of retinal vasculitis, retinal vascular occlusion, and intraocular inflammation adverse events suffered by patients in the Beovu clinical trials; and/or

f. Defendants promoted Beovu as a safe and effective treatment for patients with a prior history of using other anti-VEGF therapies despite the fact that the Defendants had not properly studied Beovu in that patient population.

139. Defendants' material misrepresentations and/or active concealment, suppression, and omissions were perpetuated directly and/or indirectly by Defendants, their sales representatives, employees, distributors, agents and/or detail persons, through databases, printouts, monographs, product labeling and other information drafted, prepared, marketed, sold, and supplied by Defendants, their sales representatives, employees, distributors, agents and/or detail persons.

140. Defendants' material misrepresentations and/or active concealment, suppression, and omissions constitute a continuing tort.

141. Through its product inserts and other public statements, Defendants continue to misrepresent the serious potential vision-related risks and complications associated with use of Beovu.

142. Defendants had a post-sale duty to timely warn physicians including Plaintiff's healthcare providers, and consumers, such as Plaintiffs, about the potential risks and complications associated with use of Beovu.

143. Defendants negligently misrepresented the safety and efficacy of Beovu in their labeling, advertising, product inserts, promotional materials, or other marketing resources and

materials.

144. If Plaintiff's healthcare providers and Plaintiff had known the true facts concerning the risks of Beovu use, in particular, the risk of vision-related adverse events and/or reactions, including, but not limited to, an increased risk for intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems, they would not have prescribed or used Beovu and would have instead prescribed and used a safer alternative pharmaceutical drug or no drug at all.

145. Plaintiff and Plaintiff's healthcare providers' reliance upon Defendants' material misrepresentations were justified, among other reasons, because said misrepresentations and omissions were made by individuals and entities who were in a position of knowledge of the true facts concerning Beovu, while Plaintiff and Plaintiff's healthcare providers were not in a position to know the true facts concerning Beovu, and because Defendants overstated the benefits and safety of Beovu, and concomitantly downplayed the risks of its use, including, but not limited to, an increased risk for intraocular inflammation, retinal vasculitis, retinal vascular occlusion and other severe vision problems, thereby inducing Plaintiff's healthcare providers to prescribe and Plaintiff to use Beovu, in lieu of other safer alternatives, or no drug at all.

146. As a direct and proximate result of the dangerous and defective nature of Beovu Plaintiff suffered central retinal artery occlusion and other serious eye injuries, and resulting pain and suffering, disability, disfigurement, mental anguish, loss of capacity for the enjoyment of life, expense of hospitalization, and medical care and treatment. The losses are permanent and the Plaintiff will continue to suffer the losses in the future.

FIFTH CAUSE OF ACTION
PUNITIVE DAMAGES

147. Plaintiff incorporates by reference herein each of the allegations heretofore set

forth in this Complaint as though fully set forth herein.

148. As discussed herein, Defendants have intentionally misrepresented the clinical trial data for Beovu to FDA, healthcare providers, and the general public in order to mask the true risk of retinal vascular occlusion, retinal vasculitis, intraocular inflammation, and other severe eye injuries related to Beovu use. Those misrepresentations continue to the present.

149. Defendants have engaged in marketing efforts seeking to induce healthcare providers to switch their patients from other anti VEGF agents to Beovu despite lacking the necessary evidence to demonstrate that Beovu is safe and effective in this population and despite affirmative evidence that the drug is not safe in this patient population.

150. Defendants have intentionally misled healthcare providers and the general public in making non-inferiority claims for Beovu as compared to other anti VEGF agents despite possessing the knowledge that these claims are false.

151. Defendants have intentionally failed to properly warn healthcare providers about the true risk of retinal vasculitis, retinal vascular occlusion, intraocular inflammation, and other severe eye injuries related to Beovu use despite possessing knowledge that Beovu causes these serious adverse events.

152. Defendants' actions were willful and malicious in that Defendants' conduct was carried on with a conscious disregard for the safety and rights of Plaintiff. Defendants' unconscionable conduct thereby warrants an assessment of exemplary and punitive damages against Defendants in an amount appropriate to punish Defendants, and deter similar conduct in the future.

153. As a direct and proximate result of the dangerous and defective nature of Beovu Plaintiff suffered central retinal artery occlusion and other serious eye injuries, and resulting pain

and suffering, disability, disfigurement, mental anguish, loss of capacity for the enjoyment of life, expense of hospitalization, and medical care and treatment. The losses are permanent and the Plaintiff will continue to suffer the losses in the future.

WHEREFORE, Plaintiff prays for judgment against Defendants, as follows:

a. For general damages in an amount to be proven at the time of trial;

b. For special damages in an amount to be proven at the time of trial;

c. For exemplary and punitive damages in an amount to be proven at trial, and sufficient to punish Defendants or to deter Defendants and others from repeating the injurious conduct alleged herein;

d. For pre-judgment and post-judgment interest on the above general and special damages;

e. For costs of this suit and attorneys' fees; and

f. All other relief that this Court deems necessary, proper, and just.

[redacted]

[redacted]

[redacted]

[redacted]