

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BIOCON BIOLOGICS, INC. and BIOCON BIOLOGICS LIMITED,
Petitioners,

v.

REGENERON PHARMACEUTICALS, INC.,
Patent Owner.

Case: PGR2026-00039
U.S. Patent No. 12,168,036

PATENT OWNER'S DISCRETIONARY DENIAL BRIEF

TABLE OF CONTENTS

TABLE OF AUTHORITIES	ii
TABLE OF EXHIBITS	iii
I. Introduction.....	1
II. Argument	2
A. Regeneron’s Eylea® and Eylea HD® Products.....	2
B. Regeneron’s Domestic Manufacturing Presence and Investments.....	6
C. Institution of Biocon’s Petition Undermines Domestic Manufacturing	9
III. Conclusion	11

TABLE OF AUTHORITIES

CASES

Regeneron Pharm., Inc. v. Mylan Pharm. Inc.,
714 F. Supp. 3d 652 (N.D.W. Va. 2024).....4, 5

OTHER AUTHORITIES

35 U.S.C. § 314(a)11
35 U.S.C. § 316(b)11

TABLE OF EXHIBITS

Exhibit	Description
2001	<i>Donald Trump Remarks Transcript, Calls Contracting COVID-19 “Blessing from God” October 7, @Rev, https://www.rev.com/transcripts/donald-trump-remarks-transcript-calls-contracting-covid-19-blessing-from-god-october-7 (last accessed Mar. 19, 2026) (“2020 Transcript”)</i>
2002	<i>Kiran Stacey et al., Regeneron: The Company That Trump Claims Cured His Covid, Financial Times (Oct. 9, 2020), https://www.ft.com/content/70672ed3-bf66-4c14-8392-076d0c503558 (“Stacey 2020a”)</i>
2003	<i>Kiran Stacey, Trump Calls Coronavirus Treatment He Received a “Cure”, Financial Times (Oct. 7, 2020), https://www.ft.com/content/a792326c-40e7-460d-ac38-8a9b03286ea0 (“Stacey 2020b”)</i>
2004	<i>Rahul N. Khurana et al., Two-Year Results of the Phase 3 Randomized Controlled Study of Abicipar in Neovascular Age-Related Macular Degeneration, 128 Ophthalmology 1027 (2021) (“Khurana 2021”)</i>
2005	<i>Public Trial Transcript Excerpts, Regeneron Pharmaceuticals, Inc. v. Mylan Pharmaceuticals Inc., No. 22-cv-61 (N.D.W. Va.)</i>
2006	<i>AbbVie, Allergan, an AbbVie Company, and Molecular Partners Receive Complete Response Letter from FDA on Biologics License Application for Abicipar Pegol, AbbVie News Center (June 26, 2020), https://news.abbvie.com/2020-06-26-Allergan-an-AbbVie-Company-and-Molecular-Partners-Receive-Complete-Response-Letter-from-FDA-on-Biologics-License-Application-for-Abicipar-pegol (“AbbVie Press Release”)</i>
2007	<i>Beovu Label (2024)</i>
2008	<i>Novartis, Novartis reports one year results of Phase III MERLIN study evaluating Beovu® every four week dosing and provides update on Beovu clinical program, Novartis Media Releases (May</i>

	28, 2021) https://www.novartis.com/news/media-releases/novartis-reports-one-year-results-phase-iii-merlin-study-evaluating-beovu-every-four-week-dosing-and-provides-update-beovu-clinical-program (“Novartis Press Release”)
2009	Philip J. Rosenfeld & David J. Browning, <i>Editorial: Is This a 737 Max Moment for Brolucizumab?</i> , 216 Am. J. Ophthalmology A7 (2020) (“Rosenfeld”)
2010	Eylea HD [®] Highlights of Prescribing Information (Oct. 2024) (“Eylea HD [®] Label”)
2011	John S.Y. Park & David R. Chow, <i>Clinical Primer on Eylea HD: Review of the Current Data</i> , Retina Specialist (Apr. 13, 2024), https://www.retina-specialist.com/article/clinical-primer-on-eylea-hd-review-of-the-current-data (“Park”)
2012	U.S. Food & Drug Admin., Eylea HD [®] Approval Letter (August 18, 2023) (“Eylea HD [®] FDA Approval Letter”)
2013	Declaration of Daniel Van Plew (June 8, 2026) (“Van Plew Decl.”)
2014	Berkeley Lovelace Jr., <i>FDA Approves First Gene Therapy for Genetic Hearing Loss</i> , NBC News (Apr. 23, 2026), https://www.nbcnews.com/health/health-news/fda-approves-first-gene-therapy-genetic-hearing-loss-rcna341666 (“Lovelace”)
2015	<i>Manufacturing Operations: Overview</i> , Biocon, https://www.biocon.com/businesses/generics/overview-manufacturing-operations/ (last accessed May 27, 2026) (“Biocon Manufacturing”)
2016	Regeneron, <i>Release Details: Otarmeni[™] (lunsotogene parvec-cwha) Approved by FDA as First and Only Gene Therapy for Genetic Hearing Loss; Regeneron to Provide Otarmeni for Free in the U.S.</i> (Apr. 23, 2026), https://investor.regeneron.com/news-releases/news-release-details/otarmenitm-lunsotogene-parvec-cwha-approved-fda-first-and-only (“Otarmeni Release”)

I. Introduction

Patent Owner Regeneron Pharmaceuticals, Inc. (“Regeneron”) is an American biotechnology company that was founded and is headquartered in the United States. From its early days as a start-up venture with no products until its present status as an industry leader still managed by the two individuals who founded it, Regeneron’s commitment to inventing medicines that help Americans and its devotion to doing so here in America have not wavered. Regeneron has invented and developed (or co-developed) each and every one of its products in the United States, and it has manufactured most of its products in the United States as well. One of those medicines was the COVID treatment that President Trump hailed as a “cure” of his serious and potentially life-threatening infection. Another is a new therapy for a genetic hearing deficiency that achieves remarkable hearing improvements, which Regeneron has made available free of charge to children in the United States. And another example is Regeneron’s groundbreaking Eylea HD[®] product—which uses extended regimens to treat serious angiogenic eye disorders that if left untreated can lead to blindness. Eylea HD[®] is covered by the patent challenged in this proceeding, U.S. Patent 12,168,036 (the “’036 patent”). In recent years, Regeneron has made substantial investments in its U.S. manufacturing efforts, in part to increase its capacity to manufacture its Eylea HD[®] product in the United States. Regeneron’s investments relied on its expectation of having market exclusivity free of

competition from biosimilars of its Eylea HD[®] product.

Petitioners Biocon Biologics, Inc. and Biocon Biologics Limited (“Biocon” or “Petitioners”) are foreign-owned companies seeking to invalidate the ’036 patent to market a biosimilar competitor to Regeneron’s Eylea HD[®]. In doing so, Biocon’s Petition seeks to upend a significant basis of Regeneron’s substantial investments in U.S. manufacturing.

The Director has emphasized the importance of ensuring that the institution framework appropriately weighs the interests of entities that invest in domestic production. Regeneron unquestionably is such an entity—it has made and continues to make substantial manufacturing investments in the United States, creating jobs and developing technical skills among the domestic workforce. Institution of Biocon’s Petition would threaten to undermine Regeneron’s efforts to domestically manufacture Eylea HD[®] and Eylea[®] and the drug substance used to make both of those products. The Director therefore should exercise his discretion and deny institution.

II. Argument

A. Regeneron’s Eylea[®] and Eylea HD[®] Products

Regeneron is an innovative American biotechnology company that devotes immense resources to discovering new medicines. The results have been nothing short of lifesaving—indeed, in October 2020, President Trump credited Regeneron’s

then-experimental COVID treatment with bringing him back to health. *See* Ex.2001 (2020 Transcript), 2-3 (“[T]hey gave me Regeneron, and it was . . . unbelievable. I felt good immediately. . . . [T]hings that nobody even thought of a few months ago. The job that the scientists, the labs, everybody has done is incredible.”); Ex.2002 (Stacey 2020a), 1 (President Trump “described Regeneron’s antibody treatment as a ‘miracle’”); Ex.2003 (Stacey 2020b), 1-2 (“They call [the medication] therapeutic, but to me it wasn’t just therapeutic, it made me better. I call that a cure.”). Today, Regeneron is led by the same physician-scientists who founded it over 30 years ago: Dr. Leonard Schleifer and Dr. George Yancopoulos. During that time, Regeneron has delivered at least eleven FDA-approved treatments to patients, including Eylea[®] and Eylea HD[®]. Earlier this year, Regeneron received FDA approval for Otarmeni, which is the first gene therapy for treating genetic hearing loss and has achieved remarkable hearing improvements in children. Ex.2014 (“Lovelace”), 1-2; Ex.2016 (“Otarmeni Release”), 1-2. Regeneron has taken the extraordinary step of offering Otarmeni to patients in the United States at no cost. Ex.2014, 1-3; Ex.2016, 1-2. Regeneron’s acts of innovation and generosity are made possible only through the success of its other drugs that are marketed for more common conditions.

Regeneron’s Eylea[®] and Eylea HD[®] medications have proven revolutionary for the treatment of angiogenic eye disorders (such as wet age-related macular degeneration (“wet AMD”), diabetic macular edema, and diabetic retinopathy),

which are characterized by abnormal blood-vessel growth in the eye and may cause vision loss or even blindness. *See, e.g., Regeneron Pharm., Inc. v. Mylan Pharm. Inc.*, 714 F. Supp. 3d 652, 691 (N.D.W. Va. 2024) (“*Mylan*”). Eylea[®] is a pharmaceutical formulation comprising the fusion protein aflibercept, a novel, artificial protein invented by Dr. Yancopoulos and his team and designed to neutralize vascular endothelial growth factor (“VEGF”), a key driver of angiogenesis. *See, e.g., id.* at 691-93. The aflibercept protein ultimately was shown to achieve not only “comparable (1) safety and (2) efficacy to ranibizumab”—the leading anti-VEGF treatment for angiogenic eye disorders then available—but also “(3) the durability to be dosed *half* as frequently as ranibizumab (after three loading doses for wet AMD),” specifically, on a bimonthly rather than monthly basis. *See, e.g., id.* at 746. This was a crucial advancement given that anti-VEGF treatments require intravitreal injections (*i.e.*, into the vitreous of patients’ eyes), which are “burdensome for patients and their caregivers, and entail[] serious risks—including infection, inflammation, and retinal detachment, as well as anxiety and discomfort.” *See, e.g., id.* at 693. Key to this extended dosing interval was the relatively high concentration of aflibercept in Eylea[®] (40 mg/ml), which allowed for an “extended half-life” in the eye, notwithstanding the prior art teaching away from concentrations as high as 40 mg/ml because they resulted in additional side effects (*e.g.*, inflammation) but no greater efficacy compared to lower concentrations. *See, e.g.,*

id. at 746. This ability for aflibercept to be just as safe and effective as the then-leading treatment while being administered half as frequently resulted in Eylea® “bec[oming] the leading medicine in its class and a revolutionary treatment for treating angiogenic eye disorders.” *See, e.g., id.* at 747.

Eylea HD®, in turn, represented another revolutionary advancement over the state of the art. Despite Eylea®’s considerable success in extending dosing intervals, intravitreally injected anti-VEGF treatments continued to impose significant treatment burdens on patients and caregivers alike. *See, e.g.,* Ex.1001 (’036 patent), 51:19-26. Accordingly, a further extension of the dosing interval beyond the bimonthly dosing achieved with Eylea® would offer tremendous benefits to patients in terms of quality of life and treatment outcomes. *See, e.g.,* Ex.2004 (Khurana 2021), 10. Even though increasing the dose and concentration of anti-VEGF treatments was known to risk issues like inflammation, aggregation, adverse immune responses, and an unsuitably high viscosity for intravitreal injection, *see, e.g., Mylan*, 714 F. Supp. 3d at 692, 707; Ex.2004, 6; Ex.2005 (Mylan Trial Transcript), 9, 861:1-23 (Albini); Ex.2006 (AbbVie Press Release), 1; Ex.2007 (Beovu Label), 1; Ex.2008 (Novartis Press Release), 1-2; Ex.2009 (Rosenfeld 2020), 1-2; Ex.1001, 1:42-2:33, 13:33-39, 20:33-38, Regeneron’s scientists successfully invented a protein formulation that has a four-fold greater dose (8 mg) and nearly three-fold greater concentration (114.3 mg/ml) than Eylea® (2 mg and 40 mg/ml, respectively) while

also having a suitable volume, stability, and viscosity for intravitreal administration. *See, e.g.*, Ex.2010 (Eylea HD[®] Label), 1; Ex.1001, Example 13, Figs. 19A-19E; *see also* Ex.1001, Examples 3, 5, 9, Figs. 3A-3C, 5, 9. Since 2023, this formulation has been available to patients as Eylea HD[®], which has comparable efficacy to Eylea[®] while being dosed (depending on the condition treated) as infrequently as once every twelve or sixteen weeks, rather than once every eight weeks. *See, e.g.*, Ex.2011 (Park), 5; Ex.2010, 1; Ex.2012 (Eylea HD[®] FDA Approval Letter), 1, 6.

B. Regeneron's Domestic Manufacturing Presence and Investments

Regeneron is an American company headquartered in Tarrytown, New York. *See* Ex.2013 (Van Plew Decl.) ¶ 3. Regeneron is one of the largest manufacturers of biologic drug products in the world, and it maintains manufacturing sites in the United States. *Id.* ¶¶ 4, 9. Regeneron manufactures the active ingredient in Eylea[®] and Eylea HD[®]—the aflibercept protein—at its manufacturing facilities in Rensselaer, New York. *See id.* ¶ 9. Specifically, Regeneron manufactures the aflibercept protein as Drug Substance Intermediate (“DSI”) and then further processes aflibercept DSI into aflibercept Formulated Drug Substance (“FDS”), which is the form of the aflibercept protein used as the active ingredient in both products. *See id.* ¶ 8.

A majority of Regeneron's production of aflibercept occurs in the United States. *Id.* ¶¶ 10-11, 15, 19. In 2026, Regeneron expects to manufacture the majority

of its aflibercept DSI batches domestically in Rensselaer, New York. *Id.* ¶ 10.

Regeneron's domestic footprint extends beyond its production of the aflibercept protein. Eylea HD[®] is made by Regeneron's use of filling, labeling, and sterilization facilities across the Midwest region of the United States—including in Indiana, Michigan, Pennsylvania, and elsewhere. *Id.* ¶ 11. Regeneron has made deliberate and substantial investments to ensure that its manufacturing processes employ American workers and rely on American resources—creating skilled jobs across multiple states and bolstering domestic pharmaceutical manufacturing capacity.

Beyond aflibercept, Eylea[®], and Eylea HD[®], by January 2029 Regeneron expects to manufacture a significant majority of bulk formulated drug substance batches for U.S. commercial drug product in U.S. facilities. *Id.* ¶ 21.

Regeneron's unwavering commitment to American manufacturing is evidenced by its continued investment in domestic manufacturing. In 2025, Regeneron announced an up to \$2 billion investment in a new manufacturing facility in Saratoga Springs, New York. *Id.* ¶¶ 12, 15. This new facility will allow Regeneron to nearly double its existing manufacturing capacity in upstate New York and is expected to support approximately 500 short-term design and construction jobs and should create at least 1,000 or more full-time, permanent jobs. *Id.* ¶ 13. Regeneron chose to invest billions of dollars in this new facility primarily to

maintain and expand its capacity to make its product portfolio, including Eylea HD[®]. *Id.* ¶ 19. This investment was premised on the understanding that Regeneron would enjoy ongoing patient demand for its product. *Id.* ¶ 14. The Saratoga Springs facility is currently expected to be operational as soon as approximately 2029, at which point Regeneron expects to manufacture aflibercept DSI and/or FDS—including for use as the active ingredient in Eylea HD[®]—at its facilities in New York. *Id.* ¶ 15. Regeneron also is spending more than \$3 billion over a ten-year term at a bulk manufacturing facility in North Carolina that is owned and operated by a third-party. *Id.* ¶ 16. This arrangement has allowed Regeneron to secure and enable additional significant bulk active pharmaceutical ingredient (“API”) biopharmaceutical manufacturing output in the U.S. *Id.* Consistent with these investments and plans, Regeneron expects that its imports of formulated drug substance for Regeneron-branded pharmaceutical products will decrease significantly. *Id.* ¶ 22.

In addition to the Saratoga Springs facility, Regeneron announced plans to construct a new, state-of-the-art fill/finish manufacturing facility in Rensselaer, New York. *See id.* ¶ 18. The manufacturing site and bringing the fill/finish facility online represents an investment of approximately \$1 billion by Regeneron, another testament to Regeneron’s commitment to American manufacturing. *Id.* This facility is expected to be good manufacturing practices (“GMP”)-approved for commercial product operations by 2027, while the Tempel Lane site already employs over 1,000

full-time employees. *Id.* ¶ 20. A principal reason that Regeneron chose to invest significantly in its new fill/finish manufacturing facility was to maintain and expand its total capacity to make its product portfolio for use in product sold in the U.S., including Eylea HD[®], with the expectation that Regeneron can satisfy ongoing patient demand for its products. *Id.* ¶ 19. In 2021, Regeneron announced an investment to expand its research and development (“R&D”) campus and headquarters in Westchester County, New York. *Id.* ¶ 17. Regeneron is investing in excess of \$3 billion to expand its research and preclinical manufacturing facilities. *Id.* Regeneron’s substantial investment in building American facilities reflects its longstanding efforts as a leading American biotechnology firm to anchor its workforce and production capabilities in the United States—a commitment made in reliance on its expectation for continued market demand for Eylea HD[®].

C. Institution of Biocon’s Petition Undermines Domestic Manufacturing

Regeneron made the above-described investments in domestic manufacturing based on an expectation of market exclusivity for its Eylea HD[®] product due in part to the ’036 patent. As made clear by the accompanying declaration of Regeneron’s Executive Vice President and General Manager of Industrial Operations and Product Supply, a principal reason Regeneron invested billions of dollars in its new manufacturing facilities in New York “was to maintain and expand its total capacity (i.e., internal and external/CMO) to make its product portfolio for use in product

sold in the U.S., with the expectation that Regeneron can satisfy ongoing patient demand for all our products.” *Id.* ¶ 19. Regeneron has continuously invested in and supported domestic manufacturing in the United States. Regeneron is one of only a few biotechnology firms that continues to manufacture its leading biologic drugs within the United States. While other pharmaceutical brands have moved their manufacturing overseas, Regeneron has looked homewards. Institution of Biocon’s Petition threatens to upend those expectations and undermine the substantial domestic investments that Regeneron has made in reliance on its patent rights.

Biocon, by contrast, is primarily based in India, where it operates eight manufacturing facilities. *See* Ex.2015. Its presence in the United States is recent and limited to a single facility in New Jersey inaugurated in 2026. *Id.* Biocon’s principal offices and manufacturing facilities are located abroad. *Id.*

Instituting Biocon’s Petition could have severe consequences for American manufacturing: Regeneron’s multi-billion-dollar investments in domestic facilities could be jeopardized, and the thousands of American jobs those investments were designed to create could be at risk. Institution thus would reward a foreign competitor at the direct expense of Regeneron’s substantial American manufacturing operations, workforce, and investments. To grant Biocon’s request would flout the Director’s emphasis on ensuring that “the current institution framework appropriately weighs the interests of entities that invest in domestic production.”

John A. Squires, Memorandum: Additional Discretionary Institution Considerations – U.S. Manufacturing and Small Business Use of AIA Proceedings (Mar. 11, 2026); *see* 35 U.S.C. § 316(b). The Director should credit Regeneron’s substantial investment in domestic manufacturing and exercise his discretion to deny institution of this Petition.

III. Conclusion

For the foregoing reasons, Regeneron respectfully requests that the Director exercise his discretion under 35 U.S.C. § 314(a) to deny institution.

Date: June 8, 2026

/David I. Berl/
David I. Berl
Reg. No. 72,751
Williams & Connolly LLP
680 Maine Avenue SW
Washington, D.C. 20024
Lead Counsel for Patent Owner

CERTIFICATION OF PAGE LIMIT

The undersigned certifies that this Discretionary Denial Brief complies with the 20-page limit provided in Section II.C.iii of the Interim Director Discretionary Process guidance available at <https://www.uspto.gov/patents/ptab/interim-director-discretionary-process>.

Date: June 8, 2026

/David I. Berl/

David I. Berl

Reg. No. 72,751

Lead Counsel for Patent Owner

CERTIFICATE OF SERVICE
(37 C.F.R. § 42.6(e))

The undersigned hereby certifies that on June 8, 2026, I caused true and correct copies of the following materials:

- Patent Owner's Discretionary Denial Brief
- Patent Owner's Exhibit List
- Exhibits 2001-2016

to be served via e-mail on the following:

Name	E-Mail Address
Alexander Ott	AOtt@winston.com
Jovial Wong	jwong@winston.com
Charles Klein	cklein@winston.com
Alison King	amking@winston.com
Mason Davenport	mdavenport@winston.com

Date: June 8, 2026

/David I. Berl/

David I. Berl

Reg. No. 72,751

Lead Counsel for Patent Owner