UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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DR. FALK PHARMA GMBH,
Petitioner,

v.

ELLODI PHARMACEUTICALS, L. P.,
Patent Owner.

_____

Case No. IPR2025-00054
Patent No. 11,246,828

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PATENT OWNER'S RESPONSE

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List of Patent Owner's Exhibits

Exhibit No.	Description
2002	*Reserved*
2003	Excerpt from the file history of U.S. Patent No. 10,632,069
2004	Transcript of the August 29, 2025 Deposition of Alan F. Parr, Pharm.D., Ph.D. from Nos. IPR2025-00052, IPR2025-00054, and IPR2025-00055
2005	Iorgulescu, G., Saliva between normal and pathological. Important factors in determining systemic and oral health, Journal of Medicine and Life Vol. 2, No.3, July-September 2009, pp.303-307
2006	Miehkle, S. et al., A randomised, double-blind trial comparing budesonide formulations and dosages for short-term treatment of eosinophilic oesophagitis, Gut 0:1-10 (2015)
2007	Declaration of Martyn Christopher Davies in Support of Patent Owner's Response
2008	*Curriculum Vitae* of Martyn Christopher Davies
2009	*Reserved*
2010	Clinical Trials Study, "Efficacy, Safety, and Pharmacokinetics of APT-1011 in Subjects With Eosinophilic Esophagitis (EoE)(FLUTE)," last updated Apr. 26, 2023, https://clinicaltrials.gov/study/NCT03191864?tab=results&a=11#outcome-measures
2011	Transcript of the April 9, 2025 Deposition of Alan F. Parr, Pharm.D., Ph.D. from No. IPR2024-01197
2012	"Antrum" Definition, American Medical Dictionary: A Concise and Up-to-Date Guide to Medical Terms (1998)
2013	M.E. Aulton (Ed.), Pharmaceutics: The Science of Dosage Form Design (2d. 2002)
2014	"Lozenge" Definition, Dennis B. Worthen (ed.), Dictionary of Pharmacy (2004)
2015	*Reserved*

Exhibit No.	Description
2016	Hahm, H.A., Augsburger, L.L., Ch. 9 Orally Disintegrating Tablets and Related Tablet Formulations
2017	Ghosh, T.K. et al, Drug Delivery to the Oral Cavity Molecules to Market, Ch. 14 Quick dissolving oral dosage forms: Scientific and regulatory considerations from a clinical pharmacology and Biopharmaceutics Perspective (2005)
2018	Transcript of the August 25, 2025 deposition of Alan Parr, Pharm.D. from No. IPR2024-01197
2019	*Reserved*
2020	Cordova-Fraga T, Sosa M, Wiechers C, et al., Effects of anatomical position on esophageal transit time: a biomagnetic diagnostic tech-nique. World J Gastroenterol 14:5707–11 (2008)
2021	U.S. Patent No. 8,324,192
2022	Orange Book: Approved Drug Products with Therapeutic Equivalence Evaluations, Patent and Exclusivity for: N213976, Product 001 Budesonide (Eohilia) Suspension 2mg/10ml, https://www.accessdata.fda.gov/scripts/cder/ob/patent_info.cfm?Product_No=001&Appl_No=213976&Appl_type=N
2023	Memorandum from Director Coke Morgan Stewart to Members of the Patent Trial and Appeal Board re Enforcement and Non-Waiver of 37 C.F.R. § 42.104(B)(4) and Permissible Uses of General Knowledge in Inter Partes Reviews, dated July 31, 2025
2024	*Reserved*
2025	*Reserved*
2026	*Dr. Falk Pharma GMBH v. Ellodi Pharms., L.P.*, IPR2024-01197, EX1093 (P.T.A.B July 10, 2024)
2027	Transcript from the July 2, 2025 Deposition of Martyn Christopher Davies, Ph.D. from No. IPR2024-01197
2028	U.S. Patent 9,867,780
2029	Geoffrey Lee, Report on Measurement of Disintegration Time of Jorvezaa® 1 mg Schmelztabletten

Exhibit No.	Description
2030	Jorveza® label

I. INTRODUCTION

The challenged claims of U.S. Patent No. 11,246,828 ("the '828 patent") relate to an orally dispersing tablet ("ODT") comprising budesonide (i.e., a corticosteroid with no significant systemic glucocorticoid or mineralocorticoid activity) that disintegrates within 60 seconds according to the USP <701> Disintegration Test and topically deposits a therapeutically effective amount of budesonide in the upper gastrointestinal tract, including the esophagus. EX1001, 1:20-35, 5:10-19. As the claimed ODT disintegrates within 60 seconds, it forms a suspension with the small amount of saliva produced during that timeframe. As the suspension is swallowed, a therapeutically effective amount of budesonide is released and deposited in the esophagus. This allows the ODT to treat an inflammatory condition of the upper gastrointestinal tract, such as eosinophilic esophagitis (EoE). EX1001, 1:20-35, 5:23-27. Petitioner cannot established *prima facie* obviousness because the cited references do not motivate or provide a reasonable expectation of success in arriving at the claims of the '828 patent. As discussed below, the prior art teaches the use of 8-12mL viscous liquids or slow dissolving lozenges (e.g., that produces 8-12mL liquid) to treat EoE. No reference recognizes that an ODT can be used to topically deposit a topically acting corticosteroid on the upper gastrointestinal tract to treat EoE.

II. THE GROUNDS

The Board instituted review on all grounds outlined in the Petition. In Ground 1, Petitioner asserts that claims 1-16 would have been obvious over US 2007/0111978 ("Dohil"). Petitioner argues that Dohil's disclosure of a "lozenge or other similar tablet…[that] dissolve[s] rapidly in the mouth or esophagus to produce a solution that can then coat the esophagus," teaches and the claimed ODT. Pet., 23-24.

Dohil's lozenge or similar tablet is not an ODT that disintegrates within 60 seconds, and Dohil does not provide motivation or a reasonable expectation of success in arriving at the claimed ODT to treat EoE. Lozenges do not disintegrate in 60 seconds. Lozenge dissolves "slowly" over several minutes. EX2013, 413; *see also* EX2014, 201 (defining a lozenge as a "solid preparation…intended to dissolve or disintegrate ***slowly***" (emphasis added)); EX2016, 293 ("Lozenges and buccal tablets are intended to dissolve ***slowly*** in the mouth, whereas, orally disintegrating tablets must disperse or dissolve in the mouth quickly, within seconds." (emphasis added)). Because Dohil describes its tablet as "similar" to a lozenge, Dohil's "similar tablet" would also dissolve "slowly" over several minutes, like a lozenge. Dohil teaches a lozenge because dissolving slowly will produce the 8-12mL volume that Dohil teaches is required for "pan-esophageal mucosal coverage" and effective

treatment of EoE. An ODT that dissolves within 60 seconds would not achieve this volume.

Petitioner uses a hindsight-driven analysis to presume that a person of ordinary skill in the art (POSA) would be seeking to formulate a tablet that disintegrates within 60 seconds or less based on the disclosure in Dohil. Petitioner provides no reasonable basis to establish a motivation to start from a tablet that disintegrates within 60 seconds, instead of Dohil's exemplified liquid formulation that was tested and shown to be effective. The general knowledge of a POSA cannot remedy this deficiency.[1]

In Ground 2, Petitioner asserts that claims 1-16 would have been obvious over WO 00/44351 ("Grother") and the FDA Guidance for Industry: Orally Disintegrating Tablets (2008) ("FDA Guidance"). Petitioner cites to Grother as teaching an ODT that can be used to administer a corticosteroid, the FDA Guidance for teaching disintegration with 30 seconds using the USP <701> Disintegration Test. These references do not teach or suggest the claimed ODT and its use in

[1] Pursuant to Director Stewart's July 31, 2025 Memorandum enforcing 37 C.F.R. § 42.104(B)(4), Petitioner improperly uses the "general knowledge" of a POSA to supply missing claim limitations. EX2023; *see, e.g.*, Pet., 25-31, 34-44, 48-54, 56-65.

treating EoE, because the combination of references fails to recognize that an ODT can be used to topically administer a corticosteroid to the esophagus.

Grother is not directed to any disease and does not teach ODTs designed to topically deposit a topical (non-systemically active) drug in the upper gastrointestinal tract for the treatment of inflammation of the upper gastrointestinal tract. Instead, it teaches a general "fast dispersing solid dosage form[]" platform that does not use gelatin and can be used with any active drug. EX1008, Abstract.

Similarly, the FDA Guidance is not directed to any particular disease, drug, or topical delivery of drugs to the upper gastrointestinal tract. It simply provides a definition for ODTs as disintegrating within 30 seconds as measured by the United States Pharmacopeia (USP) <701> Disintegration Test. EX1005, 2-3. It does not teach any ODT formulations or topical corticosteroids.

Petitioner again relies purely on impermissible hindsight, and, as with Ground 1, Petitioner offers no real reason why a POSA would have been motivated to formulate a solid pharmaceutical composition containing a topical corticosteroid that disintegrates in 60 second to topically deposit budesonide on the upper gastrointestinal tract to treat inflammatory conditions thereof.

Because the Petition is factually and legally deficient, the Board should confirm the patentability of all challenged claims.

III. BACKGROUND

A. The ’828 Patent (EX1001)

The ’828 patent is directed to orally dispersing tablets, or ODTs, containing a topically active corticosteroid that topically administers a therapeutically effective amount of a corticosteroid to inflamed tissue of the upper gastrointestinal tract for the treatment of conditions associated with inflammation of the upper portion of the gastrointestinal tract. EX1001, 1:20-35, 5:23-27. Topically depositing a therapeutically effective amount of a topically acting corticosteroid to the upper gastrointestinal tract (e.g., esophagus) is challenging, due to the constant flow of saliva, peristalsis, and gravity pushing material down toward the stomach. EX2007, ¶ 45. Despite these challenges, Patent Owner developed the first ODT for topical treatment of EoE.

EoE is an inflammatory condition of the esophagus. EX1001, 1:30-32. Prior treatments for EoE included corticosteroid formulations designed for inhalation that were instead applied to the back of the throat, (EX1001, 1:36-48), as well as oral administration of systemically active corticosteroids (EX1001, 1:49-57). These treatments posed undesirable side effects, including candidiasis infection and suppression of immune function, respectively. EX1001 at 1:36-57.

The ODT and method of treatment claimed in the ’828 patent solves these problems by formulating an ODT with budesonide, which has no significant

systemic glucocorticoid or mineralocorticoid activity after oral administration (i.e., a topically active corticosteroid). The ODT disintegrates within 60 seconds to form a solution or dispersion that is swallowed, and the budesonide is released and topically deposited budesonide on the upper gastrointestinal tract, including the esophagus. EX1001, 1:63-2:7. Disintegration of the tablet and dissolution (drug release) occur near simultaneously, resulting in drug deposition on the esophagus within 1-2 seconds of swallowing and before the disintegrated tablet passes to the stomach. EX2020, 5708 ("liquid [esophageal transit time] lasts approximately 1 to 2 s"). This mechanism of localized delivery mitigates the undesirable side effects of systemic corticosteroids used for treating EoE and candidiasis infections associated with oral corticosteroid administration. EX1001, 1:63-2:7, 4:4-8.

PO surprisingly discovered that the claimed ODT can deposit a therapeutically effective amount of a topically acting corticosteroid on the esophagus in the short period of time (~1-2 seconds) it takes the suspension to transit the esophagus and effectively treat EoE (despite disintegrating significantly faster than Dohil's lozenge or similar tablet, and not coating the esophagus with 8-12mL, as taught by Dohil), and without causing candidiasis infections. EX2010; EX2020, 5708. It is surprising that the claimed pharmaceutical composition mitigates candidiasis since an orally disintegrating composition would remain in the oral cavity longer than Dohil's liquid formulation or formulations designed for inhalation

that are instead applied to the back of the throat. EX2003, 188; *see also* EX2010, 89. It is also surprising that the claimed pharmaceutical composition "topically provide[s] a therapeutically effective amount of a corticosteroid to inflamed tissues of the gastrointestinal tract, after oral administration" given the significant change in dosage form compared to Dohil's viscous liquid formulation (i.e. liquid to an ODT). EX1001, 5:23-27.

B. Prosecution of the '828 Patent (EX1049)

The '828 patent issued from U.S. Patent Application No. 16/821,464 ("the '464 Application"). EX1001, cover. Patent Owner filed the '464 Application on March 17, 2020. EX1001, cover. In a preliminary amendment, Patent Owner amended originally filed claim 1, cancelled claims 3 and 15-21, and added new claims 23 and 24. EX1049, 292-293. The only independent claim, claim 1 recited:

> 1. (Currently Amended) An orally dispersing tablet comprising:
>
> (i) about 0.5 mg to about 1 mg of budesonide;
>
> (ii) and at least one pharmaceutically acceptable ingredient which facilitates the dispersal of the tablet in the oral cavity;
>
> (iii) sucralose, mannitol, magnesium stearate, polyvinyl pyrrolidone, polyethylene glycol, or combinations thereof;
>
> wherein upon administration a therapeutically effective amount of the corticosteroid is deposited topically in the upper gastrointestinal tract, and
>
> wherein the orally dispersing tablet disintegrates within 60 seconds in simulated saliva when tested using the USP <701> Disintegration Test.

EX1049, 292. The Examiner rejected the claims for obviousness over US

2009/0131386 ("Phillips") in view of US 2009/0169620 ("Venkatesh 2009"). EX1049, 108-113. The Examiner argued that Phillips teaches solid dosage forms for the treatment of inflammation of the gastrointestinal tract and Venkatesh 2009 teaches a solid pharmaceutical composition in the form of an orally disintegrating tablet (ODT) that disintegrates within 60 seconds or less. EX1049, 108-113.

In response, Patent Owner cited to the Notices of Allowance for several related patents, which stated that Phillips "does not teach or suggest an orally disintegrating solid formulation composition (or an orally disintegrating tablet) that disintegrates within 60 seconds" and that Venkatesh does not cure this deficiency or teach the topical delivery of drugs. EX1049, 90-91. The Examiner withdrew the rejection and allowed the claims. EX1049, 15.

IV. THE LEVEL OF ORDINARY SKILL IN THE ART

In this proceeding only, Patent Owner generally accepts Petitioner's proposed level of ordinary skill in the art.

V. CLAIM CONSTRUCTION

In this proceeding only, Patent Owner generally accepts Petitioner's proposed constructions.

VI. PETITIONER FOCUSES ON IRRELEVANT BACKGROUND PRIOR ART

In describing the state of the prior art, Petitioner focuses on irrelevant prior art disclosing budesonide and orally disintegrating pharmaceutical compositions,

none of which is relied on in Petitioner's or its expert's obviousness analysis and none of which teaches that an ODT can be used to topically administer a corticosteroid to the upper gastrointestinal tract to treat EoE. EX2004, 13:2-21; EX2011[2], 31:11-21, 41:1-15.

A. The Budesonide Prior Art Either Cannot Deposit Budesonide on the Upper Gastrointestinal Tract or uses Dohil's 8-12mL Liquid

Petitioner cites to various references, including Petitioner's product Budenofalk, as teaching the use of budesonide for treating inflammatory conditions such as Crohn's disease and ulcerative colitis. Pet., 5 (citing EX1025, EX1009, EX1010, EX1011, EX1012, EX1013, EX1026, EX1027, EX1028). These references all relate to the use of budesonide for treating inflammation of the lower gastrointestinal tract, and almost all of these prior art formulations use enterically coated budesonide tablets designed to deliver budesonide to the lower

[2] The parties have agreed to make the deposition transcripts of *Dr. Falk Pharma GMBH v. Ellodi Pharma. L.P.*, IPR2024-01197, concerning U.S. Patent No. 8,771,729 ("the '729 patent") of record in this matter. Petitioner's expert's testimony regarding the '729 patent is equally relevant to his declaration here because the '828 patent is related to the '729 patent and Petitioner asserts the same art and arguments in both proceedings.

gastrointestinal tract. EX2007, ¶¶ 64-72. Because an enteric coating is designed to prevent drug release until the drug passes through the stomach to the intestines, enterically coated budesonide cannot be deposited in the upper gastrointestinal tract as required by the claims of the '828 patent. Petitioner does not rely on any of these background references in its obviousness analysis. EX2007, ¶¶ 64-75.

Petitioner goes on to cite Aceves et al. 2005 and 2007, which were included in Dohil's Examples. Pet., 5-6 (citing EX1014, 1015). As Petitioner points out, Aceves 2005 and 2007 reported successful treatment of EoE with 8-12mL of a viscous liquid suspension of budesonide. Pet., 5 (citing EX1014, 706; EX1015, 1, 6, 8). The viscous liquid suspension of budesonide and its successful treatment in EoE are included in Dohil. Pet., 6 (citing EX1002). Petitioner does not rely on any of these background references in its obviousness analysis. EX2007, ¶¶ 73-75.

Petitioner cites to several references that highlight advantages of using ODTs. Pet., 7-8 (citing EX1019, 310-311; EX1018, 466-467; EX1017, 172). However, none of these references recognize that ODTs can be used to topically deposit a topically acting drug to the upper gastrointestinal tract. To the contrary, all prior art ODTs were used to facilitate easy administration of ***systemically active*** drugs ***to the stomach and lower intestines***, and promoting systemic absorption. The Petition and Petitioner's expert failed to provide any evidence of ODT used for topical delivery of a topically active drug to the upper gastrointestinal tract. Remarkably, Petitioner's

expert admits he was not aware of any such formulation in the prior art. EX2011, 18:5-13; *see also* EX2004, 10:19-25.

Petitioner further refers to a list of commercially available ODTs. Pet., 8-10. None of the compositions contain topically acting corticosteroids, or any drug that is topically acting or were used to treat an inflammatory condition of the upper gastrointestinal tract or EoE. EX2007, ¶¶ 77.

Petitioner also describes a number of ingredients in orally dispersing tablets, including diluents, binders, lubricants, and sweeteners. Pet., 10-13 (citing EX1041, EX1042, EX1043, EX1044, EX1045.) Petitioner and its expert do not provide any evidence of using these excipients in ODTs for the topical delivery of a topically acting drug to the upper gastrointestinal tract, or in combination with budesonide in general.

VII. PETITIONER'S ANALYSIS OF THE PRIOR ART IS GUIDED BY IMPERMISSIBLE HINDSIGHT

Petitioner argues that ODT containing budesonide were known in the art, but this not true and based on impermissible hindsight. As discussed below, the art the Petitioner cites does not actually teach or suggest using an ODT that disintegrates within 60 seconds to topically administering a topically acting drug to the upper gastrointestinal tract (e.g., esophagus).

A. Dohil

Petitioner cites to Dohil for its disclosure of a "lozenge or other similar tablet" that ***dissolves*** rapidly in the mouth or esophagus as teaching an ODT. Pet., 13; EX1002, [0032]. Petitioner only cites to three paragraphs in Dohil which generally refer to solid dosage forms. Pet., 6, 13; EX2007, ¶¶ 81-82. However, Dohil does not exemplify or provide an enabling disclosure of a lozenge or other similar tablet, and is silent regarding the disintegration rate. In fact, Dohil does not even use the term disintegrate, as recited in the claims of the '828 patent. Dohil refers to dissolve, and dissolve and disintegrate are different processes. EX2018, 21:13-25. While Petitioner does not say dissolve and disintegrate are the same, PO assumes the Petition is equating the terms, even though they have different meanings. The remaining disclosure in Dohil, which spans approximately 110 paragraphs, is exclusively related to liquid formulations of budesonide. This is because Dohil is mainly directed to liquid compositions containing viscosity enhancing agents that improve contact of the corticosteroid with the esophagus. Dohil teaches a "simple" and "palatable" viscous liquid composition with 8-12mL volume that provides "pan-esophageal mucosal coverage" to effectively treat EoE, with only a passing reference to solid compositions. EX2011, 61:3-9, 66:17-20, 68:10-12, 68:22-24, 70:8-12, 71:11-72:2, 72:25-74:6; EX1002, [0067].

To this end, Dohil teaches that it "is often difficult to deliver an effective dose of corticosteroid to the targeted area of the esophagus" and a liquid solution solves this problem. EX1002, [0007], [0009] ("A liquid, long-acting topical corticosteroid preparation is needed.").. Dohil teaches that its liquid compositions are formulated with a viscosity enhancer to deliver to the esophagus a viscous liquid containing budesonide that coats the esophagus. EX1002, [0011], [0013], [0021], [0038], [0042]-[0045], [0046], [0048]-[0070]. Dohil also teaches that 8-12mL of liquid is necessary to provide an effective amount of the corticosteroid to the esophagus. EX1002, [0031], [0053], [0067] ("[OVB] may have advantages over other therapies in that…its volume (8-12 ml) provides pan-esophageal mucosal coverage….").

All three examples in Dohil discuss an oral viscous liquid budesonide formulation (referred to as OVB). EX1002, [0056]-[0070]. The OVB liquid formulation is the only formulation made and tested in these examples, and the data shows that it effectively treats EoE in children. Dohil highlights several advantages of the OVB liquid formulation, including palatability and effective drug contact with the esophagus. EX1002, [0067] ("It may have advantages over other therapies in that it is palatable, its volume (8-12 ml) provides pan-esophageal mucosal coverage and it requires only once daily administration."); EX1002, [0056]-[0070]. More specifically, in Examples 1 and 2, the patients were administered the viscous liquid formulation daily, and both patients showed improvement of EoE symptoms and

complete resolution or normal appearing esophagus after treatment. EX1002, [0046]-[0047]. In Example 3, patients were given the viscous liquid formulation and 90% of patients showed improvement after treatment. EX1002, [0048], [0053], [0060]. Dohil does not mention any problems with the viscous liquid formulation. EX2007, ¶ 85. Thus, a POSA would understand Dohil as teaching that a specific, large volume (8-12 mL) of a viscous liquid formulation is needed to treat EoE because it is capable of coating the esophagus and topically delivering an effective dose of a topical corticosteroid to the esophagus. EX1002, [0067]. Thus, Petitioner's interpretation of Dohil as providing motivation to formulate the claimed orally dispersing composition that disintegrates within 60 seconds is pure hindsight. EX2007, ¶¶ 76, 87.

Petitioner points to the fact that Dohil describes its lozenge or similar tablet as dissolving rapidly, as teaching the claimed invention. Pet., 13. While Dohil mentions that the "lozenge or other similar tablet" "dissolve[s] rapidly," this does not lead a POSA to an ODT that disintegrates in 60 seconds. Lozenges are well known in the art to dissolve ***slowly***. EX2013, 413; *see also* EX2014, 201 (defining a lozenge as a "solid preparation…intended to dissolve or disintegrate ***slowly***" (emphasis added)). The art also distinguishes lozenges from other ODTs. EX2016, 293 ("Despite a surge of orally disintegrating tablets in the market in the recent years, they potentially can be confused with other solid oral dosage forms that are

consumed without additional water intake, including lozenges, buccal tablets, and chewable tablets. Lozenges and buccal tablets are intended to dissolve slowly in the mouth, whereas, orally disintegrating tablets must disperse or dissolve in the mouth quickly, within seconds."); EX2017, 341 (distinguishing quick/fast/rapid/mouth-dissolving tablets and fast/quick-melting tablets from lozenges). Indeed, Petitioner's expert also admits that a typical lozenge dissolves slowly. EX2011, 62:13-15. Because lozenges dissolve slowly over several minutes, Dohil's similar tablet would also dissolve over several minutes, just like a lozenge.

Dohil's reference to "dissolve rapidly" is also consistent with a POSA's understanding of the mechanism of drug release from a lozenge, and does not indicate disintegration within 60 seconds. Lozenges provide an initial rapid release of drug when the lozenge contacts saliva and then continue to dissolve slowly, over several minutes, continuing to release drug. The process of dissolving over a several minutes would provide the 8-12mL volume of viscous liquid that Dohil teaches is required to coat the esophagus and treat EoE. EX1002, [0067] ("It may have advantages over other therapies in that it is palatable, its volume (8-12 ml) provides pan-esophageal mucosal coverage and it requires only once daily administration."); EX2007, ¶ 84. This is reinforced by Dohil's teaching to dissolve a lozenge in 8-12 mL to treat EoE ("for children or other patients that may have difficulty with a dissolving lozenge, the lozenge may be ground or otherwise dissolved…reaching a

total volume presented in the embodiments herein," i.e. 8-12 mL. EX1002, [0032], [0067]). Interpreting Dohil to teach disintegration within 60 seconds reads into Dohil a disclosure that simply is not there. Petitioner starts with the claim language of the '828 patent and attempts to force Dohil's disclosure to fit into the claims of the '828 patent.

B. Grother

Petitioner also cites to Grother as disclosing an ODT containing budesonide. Pet., 13-14 (citing EX1008). The Petitioner's reliance on Grother is based purely on impermissible hindsight because, as confirmed by Petitioner's expert, Grother is not directed to any particular disease and does not teach topical deposition of a topically active drug to the upper gastrointestinal tract (e.g., esophagus). EX2011, 75:5-10; 79:1-10.

Instead, Grother is a directed to a new fast dispersing tablet platform for any drug that is "essentially free or absolutely free of mammalian gelatin." EX1008, Abstract. To this end, Grother describes the issues with using gelatin in formulating fast dispersing dosage forms, such as increased processing times, increased costs, and lack of homogeneity. EX1008, 2-3. Grother describes its invention as eliminating gelatin from the formulations and using modified starches instead, listing the various advantages of modified starches, such as improved stability and strength of the dosage form, allowing the use of sweeteners to improve taste, and

elimination of exposure to undesirable agents. EX1008, 3-6; *see also* EX2007, ¶ 93.

Grother discloses that "[a]ny drug may be used as the active ingredient in the composition of the present invention." EX1008, 15:19-20. Grother then goes on to list hundreds of drugs in multiple drug classes across six pages. EX1008, 16-21; EX2007, ¶ 94. Six of the eight examples disclosed in Grother do not even include a drug. EX1008, 22-31. Examples 7 and 8 include three drugs, none of which are topically acting corticosteroids. EX1008, 29, 31. A POSA would therefore understand Grother to disclose a general platform technology, for which any drug may be used, not ODTs containing topical corticosteroids for the treatment of EoE. EX2007, ¶ 95. Thus, Petitioner's arbitrary selection of budesonide and fluticasone is pure hindsight based on Patent Owner's claims.

Petitioner arbitrarily cites to Grother's disclosure of corticosteroids, specifically budesonide, but does not acknowledge that Grother does not distinguish between topically acting and systemically acting drugs in the plethora of drugs it lists. Pet., 13-14; EX1008, 18:15-18; EX2011, 78:4-8. Indeed, budesonide is listed among systemically acting corticosteroids, which are expressly excluded from the scope of the '828 patent's claims, including hydrocortisone, prednisone, prednisolone, methylprednisolone, dexamethasone and betamethasone. *Compare* EX1001, 3:19-36 *with* EX1008, 18:15-19. The other drugs and drug classes disclosed in Grother are also predominantly systemically active drugs. Moreover,

Petitioner remarks that one of the advantages of ODTs is the ability of the active ingredient to be absorbed through the mucosa of the gastrointestinal tract, beginning in the mouth. Pet., 2, 6, 8. A POSA would therefore be motivated to select a systemically acting drug from Grother's list of drugs for this benefit rather than a topically acting corticosteroid. This is because topically acting corticosteroids, such as budesonide, provide therapeutic effects from topical contact, not absorption. On the other hand, systemically acting drugs must be absorbed.

As explained in further detail below, Petitioner does not explain why a POSA would be motivated to look to Grother when looking to formulate treatments for inflammatory conditions of the upper gastrointestinal tract or EoE. Petitioner instead begins with the premise that a POSA would seek to formulate an orally disintegrating solid pharmaceutical composition or orally disintegrating tablet without providing any reasoning as to why a POSA would want to make an orally disintegrating composition for treatment of EoE at all.

C. Singh and Cherukuri

Finally, Petitioner cites to Singh and Cherukuri for disclosing ODTs containing budesonide. Pet., 14-15 (citing EX1035, EX1036). Petitioner does not rely on either reference as a ground for obviousness. Like Grother, Singh and Cherukuri list numerous classes and types of drugs, and neither Singh nor Cherukuri distinguishes between topical or systemic drugs in their laundry list of drug. Nor

does either reference discuss using an ODT to topically deposit a topically active drug on the upper gastrointestinal tract (e.g., esophagus), or how to effectively treat inflammation of the upper gastrointestinal tract. Thus, a POSA would understand Singh and Cherukuri to be directed towards general ODT platforms, and Petitioner's arbitrary selection of budesonide is pure hindsight based on Patent Owner's claims. EX2007, ¶ 97.

D. FDA Guidance

Petitioner relies on the FDA Guidance for Ground 2 and as general background on ODTs. Pet., 15. Petitioner's expert admitted that the FDA Guidance simply provides a definition for ODTs and is not directed to formulations for treating inflammation of the upper gastrointestinal tract. EX2011, 56:15-21; *see also* EX2007, ¶ 92. Specifically, the FDA Guidance states that ODTs are defined as "[a] solid dosage form containing medicinal substances which disintegrates rapidly, usually within a matter of seconds, when placed upon the tongue." EX1005, 2. The FDA Guidance goes on to state that ODTs disintegrate within "approximately 30 seconds or less, when based on the United States Pharmacopeia (USP) disintegration test method or alternative[.]" EX1005, 2. The FDA Guidance does not discuss or even recognize an ODT can be used to topically administer a topically acting drug to the esophagus. Thus, Petitioner's reliance on the FDA Guidance is driven by pure hindsight as it has no relevance to the problems solved by the '828 patent, namely

topically depositing a corticosteroid on the upper gastrointestinal tract to treat inflammatory conditions thereof, such as EoE.

E. Starting with an ODT when Solving the Problem of Delivering Budesonide to Upper Gastrointestinal Tract is Impermissible Hindsight

Petitioner does not analyze the art as a POSA, because Petitioner is not focused on finding a treatment for EoE. Petitioner's starts with the presumption that a POSA would be motivation to formulate ODT that disintegrates within 60 seconds as measured with USP <701> Disintegration Test. This is evident from Petitioner's reliance on ODTs used to administer systemic drugs to the gut. Pet. 6-8. Perhaps the most striking evidence of Petitioner's hindsight-driven analysis is its expert's admission that it was not aware of and conducted no specific search for any prior art orally disintegrating composition used to deliver a topically acting drug to the esophagus. EX2011, 18:5-13 ("Q: Are you aware of any drugs that have been developed as an ODT for topical administration of the esophagus? A: No, I do not…Q: You didn't do any investigation into that for this declaration, correct? A: No, ma'am."); EX2004, 10:19-25 (testifying that Petitioner's expert submitted his declaration in this proceeding prior to being deposed in *Dr. Falk Pharma GMBH v. Ellodi Pharma. L.P.*, IPR2024-01197). This is the epitome of hindsight. "The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time." *Interconnect Planning Corp. v. Feil*, 774

F.2d 1132, 1138 (Fed. Cir. 1985).

In contrast to the Petition, a POSA trying to treat inflammation of the upper gastrointestinal tract would have begun by first identifying formulations that were effective for treating inflammation of the upper gastrointestinal tract.

Out of all the references cited in the Grounds, only Dohil discusses treatments for EoE. From the disclosure in Dohil and the "off-label" treatments addressed in the '828 patent, a POSA would understand that liquid and inhaled formulations were known to deliver an effective amount of a corticosteroid to the upper gastrointestinal tract. EX1002, [0006], [0046]-[0070]; EX1001, 1:36-57. Further, from Dohil, a POSA would understand that 8-12mL of viscous liquid provides pan-esophageal coverage and increases the duration of contact of the topical corticosteroid with the inflamed esophagus to effectively treat EoE. EX1002, [0031], [0053], [0067]. These formulations are a logical starting point because the delivery mechanism ensures contact of topically active budesonide with the esophagus, whereas as Petitioner's evidence shows that ODTs had only been used to administer systemically active drugs to the stomach for adsorption.

Thus, a POSA would start with Dohil's liquid. A POSA would have no motivation to fundamentally change Dohil's liquid composition and formulate budesonide as a solid composition.

In fact, Dohil teaches that solid formulations will not be as effective as the 8-

12 mL viscous liquid. "[OVB] may have advantages over other therapies in that…its volume (8-12 ml) provides pan-esophageal mucosal coverage…." Because Dohil refers to "lozenges or other similar tablet" and then states that OVB is superior to other therapies, a POSA would understand Dohil as teaching that OVB is superior to a lozenge or similar tablet. EX1002, [0032], [0067]

Assuming a POSA would formulate budesonide as a solid composition, it would not be an ODT that disintegrates within 60 seconds as claimed in the '828 patent. Based on Dohil's teaching that a large volume of viscous liquid (8-12 mL) is necessary for pan-esophageal coating and efficacy, a POSA would therefore be motivated to provide longer disintegration times to increase volume and coating of the esophagus, such as with Dohil's lozenge which would dissolve over several minutes. A lozenge (or similar tablet) that dissolves slowly, over several minutes, would produce Dohil's 8-12mL volume. EX2005, 303 (the rate of saliva "increases to about 4[.]0-5[.]0 ml/min during eating, chewing and other stimulating activities."). This is consistent with the art-recognized definition of a lozenge. EX2013, 413; EX2014, 201; EX2016, 293. ODTs that disintegrate within 60 seconds would not produce Dohil's 8-12mL and would therefore be counterintuitive.

VIII. THE EPO DECISION DOES NOT CONTROL

Petitioner argues that because the EPO found different claims of a European counterpart to the '828 patent obvious over Dohil, so too should the Board. Pet., 15-

20. EPO proceedings, however, follow a different process according to different rules and are not binding on U.S. tribunals. Contrary to Petitioner's assertion, the EPO found that the disintegration time of 60 seconds was a "distinguishing" feature over Dohil. EX1004, ¶ 36.4. A "technical effect," however, could not be derived from the examples in the European patent application. EX1004, ¶¶ 36.5, 36.6. According to the EPO, this was because the example related only to fluticasone while the claims were directed to budesonide. EX1004, ¶ 36.6.

The "technical effect" is an EPO requirement to establish inventive step. There is no such requirement under U.S. patent law for establishing non-obviousness. In the U.S., non-obviousness can be based on lack of motivation or reasonable expectation of success. Further, post-filing data can be used as evidence of efficacy and unexpected results. *Knoll Pharm Co. v. Teva Pharms. USA*, 367 F.3d 1381, 1385 (Fed. Cir. 2004) ("There is no requirement that an invention's properties and advantages were fully known before the patent application was filed...[n]or is it improper to conduct additional experiments and provide later-obtained data in support of patent validity."). To that end, submitted herewith is evidence showing that a budesonide ODT can achieve equivalent efficacy as Dohil's liquid budesonide formulation at half the dose and produces fewer side effects. EX2006. As such, Petitioner's reliance on the EPO decision is irrelevant to the proceeding at hand. U.S. courts and the Board routinely reject the relevance of such decisions. *See, e.g.*,

Medtronic, Inc. v. Daig Corp., 789 F.2d 903, 907-08 (Fed. Cir. 1986) (refusing to adopt an obviousness holding of a German tribunal regarding a German counterpart patent because "[t]he patent laws of the United States are the laws governing a determination of obviousness/nonobviousness of a United States patent"); *Smith & Nephew, Inc. v. ConvaTec Techs. Inc.*, IPR2013-00097, Paper 76 at 3 (P.T.A.B. Feb. 24, 2014) (declining to enter into the record a European Patent Office decision regarding a European counterpart to a challenged U.S. patent, explaining that "the [EPO] decision does not involve the U.S. patents at issue in these proceedings, is not based on U.S. law, and is thus of limited relevance to the instant proceedings").

IX. THE CLAIMS OF THE '828 PATENT ARE PATENTABLE

A. It was Not Obvious to Formulate ODT to Topically Deposit a Corticosteroid on the Upper Gastrointestinal Tract and treat EoE

In Ground 1, Petitioner relies on Dohil with the knowledge of a POSA to challenge claims 1-16. As discussed in more detail below, a POSA had no motivation to modify Dohil and formulate the claimed ODT. This is because Dohil teaches a lozenge, which is known in the art to dissolve "slowly" and would produce the 8-12mL of viscous liquid is needed to provide pan-esophageal coverage and effectively treat EoE. EX1002, [0067]. Thus, Petitioner's Ground 1 fails and claims 1-16 are patentable.

1. Dohil Does Not Suggest or Teach ODTs as Required By Claims 1-16

Petitioner argues that Dohil discloses an ODT comprising budesonide that disintegrates within 60 seconds. Pet., 22-37. Petitioner points to Dohil's disclosure of "a lozenge or other similar tablet" that "would dissolve rapidly in the mouth or esophagus[.]" Pet., 23-24 (citing EX1002, [0032]). Petitioner goes on to argue that "[i]t would have been obvious to formulate Dohil's rapidly dissolving lozenge or tablet to disintegrate within 60 seconds" using the USP <701> Disintegration Test based on the FDA Guidance. Pet., 34. According to Petitioner, "[a] POSA seeking to formulate budesonide into an orally disintegrating pharmaceutical composition would be highly motivated to follow the FDA Guidance that such a composition should disintegrate within 30 seconds or less when tested using the USP <701> Disintegration Test." Pet., 56. This argument presumes that a POSA would be motivated to make an ODT based on the disclosure in Dohil, which is not true.

As explained above, Dohil's invention is an 8-12mL viscous liquid budesonide formulation (referred to in Dohil as OVB) that provides pan-esophageal coverage and effectively treats EoE, and all three examples administer the viscous liquid formulation and treat EoE. EX1002, [0013], [0030], [0031], [0036]-[0070]. Dohil does not disclose any examples using a solid dosage form. Thus, Dohil

teaches that a viscous liquid budesonide suspension is successful in treating EoE. EX2007, ¶ 104.

Dohil never mentions a solid dosage form that disintegrates within 60 seconds. Dohil discloses solid compositions in only two paragraphs, as a "dissolving tablet"/"dissolving wafer" and "lozenge or other similar tablet." EX1002, [0013], [0032]. A POSA would understand the first disclosure of dissolving tablets or wafers to refer to solid forms that are dissolved in water before oral administration and not tablets that disintegrate in the mouth, as solid dosage forms that are dissolved in water before oral administration were well known at the time. *See* EX1017, 181; EX2007, ¶ 105.

Regarding the second disclosure of a lozenge or similar tablet, this does not refer to an ODT that disintegrates in 60 seconds for several reasons. First, Dohil does not call its lozenge or other similar tablet an ODT, even though ODTs were known in the art, or explicitly state that the lozenge or other similar tablet dissolves within 60 seconds. EX1002, [0032]. While Petitioner cites several synonyms for ODTs, nowhere does Petitioner assert that lozenges are synonymous with ODTs. Pet., 6-7. Thus, Dohil also does not act as its own lexicographer to change the definition of its lozenge to mean an ODT. Second, lozenges are known in the art to dissolve over several minutes, and therefore a "similar tablet" would also dissolve over several minutes. EX2013, 413; EX2014, 201; EX2016, 293 ("Lozenges and

buccal tablets are intended to dissolve slowly in the mouth, whereas, orally disintegrating tablets must disperse or dissolve in the mouth quickly, within seconds."). The use of the phrase "dissolve rapidly" does not change the well-understood definition of a lozenge. As Petitioner's expert has admitted, "dissolve" refers to drug release. EX2018, 21:19-22. Thus, Dohil is merely describing the initial release of drug from the lozenge which may occur rapidly after oral administration, but lozenges – by definition – dissolve completely over several minutes. EX2013, 413; EX2014, 201; EX2016, 293; EX2017, 341. Third, "dissolv[ing] slowly" is necessary to achieve the 8-12mL volume of liquid that Dohil teaches provides pan-esophageal coverage and is necessary for effective treatment of EoE. Consequently, the disclosure of a lozenge and similar tablet cannot be a disclosure of an orally dissolving composition that disintegrates in 60 seconds as claimed.

Lastly, Dohil acknowledges that its lozenge is not easily swallowed, so it is not an ODT, which the Petitioner acknowledges are specifically designed for ***easy swallowing***. Pet., 7. However, Dohil provides alternative administration instructions: "for children or other patients that may have ***difficulty with a dissolving lozenge***, the lozenge may be ground or otherwise dissolved…reaching a total volume presented in the embodiments herein" i.e., 8-12 mL. EX1002, [0032] (emphasis added). If, as Petitioner contends, a lozenge is an ODT, then these same patients,

for the same reasons, could not use an ODT formulation. Nonetheless, this disclosure confirms Dohil's lozenge ***is not*** an ODT that would rapidly disintegrate because if it were, the lozenge would not need to be "ground up" or dissolved in 8-12ml of a liquid which is then swallowed to treat EoE. EX1002, [0067]; EX2007, ¶ 107.

Petitioner also argues that a lozenge can be formulated with a disintegrating agent. Pet., 37. Petitioner's own reference, Dankwerts (EX1017), expressly contradicts this argument. Dankwerts teaches that lozenges are manufactured "***without disintegrants*** and are intended to be sucked by patients." EX1017, 181 (emphasis added); *see also* EX2013, 413 ("Disintegrants are not used in the formulation…."). As acknowledged by Petitioner's expert, the mere reference to a disintegrant does not teach or suggest an orally disintegrating composition / dispersing tablet because conventional (non-orally disintegrating) tablets include disintegrants. EX2011, 65:2-11.

Thus, Dohil does not teach or suggest a solid orally disintegrating pharmaceutical composition that disintegrates within 60 seconds for at least the reasons stated above.

a. Dohil Provides No Motivation to Formulate an ODT

Petitioner asserts that "[i]t was desirable for the disintegration time of rapidly dissolving solid compositions to vary 'from several seconds to about a minute'" and

that it would have been obvious to formulate Dohil's lozenge or similar tablet to disintegrate within 60 seconds in view of the FDA Guidance. Pet., 33 (citing EX1018, 434).

However, as discussed above in Section VII.A, Dohil's invention is a liquid formulation that is palatable and simple, and, most importantly, effective for treating EoE. The Petition fails to identify any issue with Dohil's viscous liquid formulation that would motivate a POSA to fundamentally change dosage forms to an ODT. To the contrary, Dohil's viscous liquid has several benefits, namely palatability, the ability to provide pan-esophageal coverage, and efficacy. EX2007, ¶ 112. Further, as Petitioner's expert admitted in his deposition testimony, Dohil does not disclose any issues with dosing, compliance or stability with its OVB, and the data disclosed in Dohil shows that OVB is effective in treating EoE. EX2011, 72:25-74:6. Without a recognized problem, a POSA had no motivation to change Dohil's effective liquid dosage form to an ODT. EX2007, ¶¶ 112, 117. It is only through impermissible hindsight, guided by the teachings of the '828 patent, that a POSA would disregard Dohil's effective liquid formulation, and formulate an ODT that disintegrates within 60 seconds based on Dohil. EX2007, ¶¶ 110-117. "The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time." *Interconnect Planning Corp.*, 774 F.2d at 1138. An obviousness combination is only legitimate if the petition provides an "explanation as to how or

why the references would be combined to arrive at the claimed invention," failing which "we are left with only hindsight bias that *KSR* warns against." *Metalcraft of Mayville, Inc. v. The Toro Co.,* 848 F.3d 1358, 1367 (Fed. Cir. 2017). Petitioner and its expert fail to provide such an explanation, instead jumping to the conclusion that a POSA would seek to formulate budesonide in an ODT that disintegrates within 60 seconds based on the passing references of a lozenge in Dohil.

An ODT is significantly more complicated and expensive to manufacture than Dohil's liquid and there is no evidence in the prior art that an ODT had been used to topically deposit a topically active drug to the upper gastrointestinal tract. EX2007, ¶ 112. *In re Cyclobenzaprine*, 676 F.3d 1154, 1068-69 (holding that a petition must demonstrate "that a skilled artisan would have had reason to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success from doing so.")

To fabricate a motivation, Petitioner's expert characterizes Dohil's examples as a "proof of concept study" or "pilot studies" and stated that Dohil was using a simple formulation to determine if budesonide worked for EoE. EX2011, 60:21-62:3. But this statement is illogical and inconsistent with the background literature Petitioner's expert cited to show that budesonide was known to be effective in treating EoE. EX2011, 61:21-62:3. As explained in the '828 patent and Dohil, budesonide was already to be effective in treating EoE. EX1001, 1:36-48; EX1002,

[0006]; *see also* EX1014 (showing budesonide has previously been used to treat EoE), EX1015 (same). Thus, Dohil already invented an improved formulation, an 8-12mL viscous solution, and showed that it was effective for EoE.

Petitioner's position appears to be that liquid formulations are not commercially viable and a POSA would always change to a solid dosage form. *See* EX2011, 72:9-73:25. This is incorrect. There were many commercially acceptable liquid formulations on the market and a POSA would have been able to take Dohil's "proof of concept" formulation and make a commercially viable liquid formulation for Dohil's larger clinical study. EX2027, 99:2-101:25, 104:24-106:25. In fact, that is exactly what happened. Dohil's "proof of concept" formulation was developed as "Eohilia," a liquid budesonide composition for treating EoE sold by Takeda Pharmaceuticals, Inc. Dohil was issued as U.S. Patent No. 8,324,192 (EX2021) which is listed in the Orange Book for Eohilia. EX2022.

Petitioner ignores Dohil's liquid formulation and focuses on Dohil's mention of a lozenge. As discussed above, lozenges are not ODTs because lozenges dissolve "slowly" to continuously release a drug (EX2013, 413; EX2014, 201; EX2016, 293; EX2017, 341.). Petitioner and its expert fail to explain why a POSA would be motivated to modify a lozenge or similar tablet to disintegrate within 30 seconds using the USP <701> Disintegration Test as disclosed in the FDA Guidance. Modifying a lozenge to disintegrate within 30 seconds based on the FDA Guidance

would render the lozenge and similar tablet unsatisfactory for its intended purpose or change the principal operation, because it would no longer dissolve slowly to continuously deliver the corticosteroid to the esophagus over several minutes as the lozenge dissolves. EX2007, ¶ 112; *see* MPEP § 2143.01 (V) ("If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, there may be no suggestion or motivation to make the proposed modification") (citing *In re Gordon*, 733 F.2d 900, 221, USPQ 1125 (Fed. Cir. 1984)); *see also* MPEP § 2143.01 (VI) ("If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.") (citing *In re Ratti*, 270 F.2d 810, 813, 123 USPQ 349, 352 (C.C.P.A. 1959)).

Further, an ODT that disintegrates within 60 seconds would not produce 8-12mL of liquid and would not be expected to provide pan-esophageal coverage discussed in Dohil. EX1002, [0067]. In a related proceeding, *Dr. Falk Pharma GMBH v. Ellodi Pharma., L.P.*, IPR2024-01197, Petitioner's expert testified that an ODT that disintegrates within 60 seconds would only produce about 1-2 mL of liquid. EX2011, 50:17-24. Petitioner's expert then back tracked and argued that a lozenge would generate 4-5 mL per minute. *Dr. Falk Pharma GMBH v. Ellodi Pharma., L.P.*, IPR2024-01197, Paper 20 at 10-11 (P.T.A.B July 14, 2024); EX2005,

303-304. Petitioner's expert provided no support for this argument. Nonetheless, this is not the 8-12 mL volume that Dohil teaches is required for efficacy. EX1002, [0067]. Put differently, an ODT that disintegrates within 60 or 30 seconds would not produce Dohil's 8-12mL of liquid that provides pan-esophageal coverage. A POSA therefore would not be motivated to modify Dohil to formulate an ODT that disintegrates within 60 or 30 seconds. Instead, a POSA would have been motivated to have longer disintegration times to produce 8-12 mL and provide pan-esophageal coverage. *See DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1326 (Fed. Cir. 2009) ("An inference of nonobviousness is especially strong where the prior art's teachings undermine the very reason being proffered as to why a person of ordinary skill would have combined the known elements[,]" i.e., where a prior art reference "teaches away" from the proposed modification) (citation omitted); EX2007, ¶¶ 110-117.

b. Dohil Does Not Teach Inclusion of Sucralose in an ODT Containing Budesonide (Claims 1[iii], 3-13)

Petitioner cites to Dohil's disclosures of sucralose to assert that a POSA would have been motivated to use sucralose in an ODT based on Dohil's disclosure because it is "a sweetener of choice for use in orally administered tablets." Pet., 28. Petitioner fails to rely on any reference discussing the use of sucralose in tablets in its Grounds.

While Dohil discloses "sucralose," it occurs in a list of many other excipients (EX1002, [0014], [0037]) or only in liquid formulations (EX1002, [0046], [0047], [0053]). Dohil does not teach or suggest using sucralose in any solid dosage form containing budesonide and cannot teach using sucralose in an ODT because Dohil does not teach ODTs. Petitioner fails to articulate any motivation for a POSA to choose to use sucralose, as opposed to any other sweetener like aspartame, as a suitable excipient for an ODT based on Dohil. As discussed in Section X.A., sucralose is unexpectedly more stable and does not degrade budesonide, like aspartame does. EX2028. Because Dohil does not specifically teach combining budesonide with sucralose, Dohil cannot provide a reasonable expectation of improving stability with sucralose. Petitioner fails to address how or why a POSA would be motivated to formulate an ODT with sucralose according to the teachings in Dohil.

c. No Expectation of Success in Arriving at the Claimed Invention

Petitioner conclusively asserts that a POSA would have had a reasonable expectation of success formulating ODT that disintegrates within 60 seconds and topically deposits the corticosteroid on the upper gastrointestinal tract (e.g., esophagus) based on Dohil and Petitioner's allegation that formulating such compositions would have been routine at the time of the '828 patent. Pet., 35.

Prior to the '828 patent, an ODT had never been used to deposit a topically acting drug with no significant systemic activity on the upper gastrointestinal tract (e.g., esophagus) to treat a disease of the upper gastrointestinal tract. Indeed, Petitioner's expert was not able to identify a single prior art ODT containing a topically acting drug that deposited the drug topically on the upper gastrointestinal tract. EX2011, 17:8-15. What has never been done cannot be routine.

Further, as explained above, Dohil teaches that 8-12mL of a viscous liquid is needed to provide pan-esophageal coverage and effectively treat EoE. EX1002, [0067]. Unlike Dohil's liquid formulation, which is swallowed as an 8-12mL bolus dose, a POSA would know that when an ODT is administered orally, it disintegrates in the small volume of saliva produced in that short period of time and is swallowed. A POSA could not predict based on Dohil's disclosure whether the resulting volume or viscosity of the dissolved tablet would provide pan-esophageal coverage and effectively treat EoE. EX2007, ¶ 118. Nothing in Dohil suggests that an ODT that disintegrates within 60 seconds would topically administer the corticosteroid to the upper gastrointestinal tract and effectively treat EoE. EX2007, ¶ 118. On the other hand, as explained above, because Dohil's lozenge or similar tablet dissolves slowly over several minutes, it would produce Dohil's efficacious 8-12mL liquid.

d. Dohil Does Not Disclose the Claimed Doses in the Context of a Tablet (Claims 1[i], 15-16)

Dohil also does not disclose the specific dose ranges required by claims 1 and 15-16. Liquid compositions and solid compositions differ in composition and delivery mechanism (Dohil's 8-12 mL that provides pan-esophageal coating vs. the claimed ODT that disintegrates in a smaller volume of saliva) and therefore require different considerations when determining the proper dose of an active drug. Petitioner cites to Dohil's disclosure of the doses administered to patients in Examples 1-3. Pet., 24-25. But the patients in Examples 1-3 were given the viscous liquid formulation. Dohil does not explain and Petitioner does not address the difference in formulation or the fact that doses for liquid compositions are not necessarily the same as a solid compositions. Indeed, Petitioner cited no evidence that the dosage of a topical acting drug in a liquid formulation is always the same as the dose of the same drug used in an ODT. Dohil therefore does not disclose any dose for an ODT based on its liquid compositions or teach a POSA how to extrapolate from a liquid to a solid. EX2007, ¶¶ 119-120. In fact, the art cannot teach this because the '828 patent is the first example of an ODT topically administering a topically acting drug to the esophagus.

Petitioner fails to address a reasonable expectation of success of formulating an orally dispersing tablet with the claimed doses.

e. Dohil Does Not Teach or Suggest the Claimed Methods for Treatment (Claim 14)

Similarly, Dohil does not teach or suggest the method recited in claims 14 of the '828 patent. As discussed above, Dohil does not teach or suggest an ODT that disintegrates within 60 seconds and therefore cannot disclose a method of treating EoE as recited in claim 14.

There would also be no reasonable expectation of success in treating the inflammation of the upper gastrointestinal tract recited in claims 14 by administering an ODT that disintegrates within 60 seconds as claimed, because there is no reasonable expectation of successfully administering a therapeutically effective amount of a corticosteroid to the upper gastrointestinal tract using an ODT. Dohil teaches that a specific volume (8-12mL) of a viscous liquid formulation is required to achieve pan-esophageal coverage and treat EoE. EX1002, [0067]. As discussed above in Section IX.A.1.a, an ODT that disintegrates within 60 seconds or 30 seconds would not achieve the volume that Dohil teaches provides pan-esophageal coverage and is efficacious. It would only produce 2-5 mL saliva, which would not achieve pan-esophageal coating and would not reasonably be expected to be efficacious based on Dohil. EX2005, 303 (the rate of saliva "increases to about 4[.]0-5[.]0 ml/min during eating, chewing and other stimulating activities."). Therefore, there would be no reasonable expectation of success. EX2007, ¶¶ 121-

122.

B. Grother and the FDA Guidance do Not Render the Claimed ODT is not Obvious

In Ground 2, Petitioner relies on Grother and the FDA Guidance to challenge claims 1-16. A POSA had no motivation or reasonable expectation of success in formulating the claimed ODT to treat inflammation (e.g., EoE), because neither Grother nor the FDA guidance suggest that an ODT topically deposits a topical/non-systemic drug on the upper gastrointestinal tract. EX2007, ¶¶ 123-131. Thus, Petitioner's Ground 2 fails and claims 1-16 are patentable.

1. Grother and the FDA Guidance are General References and Do Not Teach or Suggest the Orally Dispersing Tablet as Required By Claims 1-17

Petitioner argues that Grother discloses fast dispersing dosage forms that contain budesonide. Pet., 46-49. Petitioner points to Grother's disclosure that "[a]ny drug may be used as the active ingredient in the composition of the present invention," which includes budesonide. Pet., 48 (citing EX1008 15:19-20; 18:15-18). As laid out above, Grother is not directed to any disease, but rather focused on eliminating mammalian gelatin from its disclosed fast dispersing solid dosage forms. EX2011, 75:5-10; 79:1-10; EX1008, Abstract. A POSA would therefore understand that Grother discloses a general ODT platform for which any drug could be used as an active ingredient. EX1008, 15:19-20; EX2007, ¶ 125.

While Grother lists corticosteroids among hundreds of drugs, Grother also does not highlight the topical corticosteroids it lists or distinguish between systemically acting drugs from topically acting drugs with no systemic activity. EX2011, 78:1-18. To the contrary, Grother comingles topically acting corticosteroids with systemically acting corticosteroids that are excluded by the claims. *Compare* EX1001, 3:19-36 *with* EX1008, 18:15-18. Notably, Grother does not teach or suggest that its fast dispersing dosage form is capable of topically depositing a topically acting drug on the upper gastrointestinal tract. EX2011, 75:5-10; 79:1-10. To the contrary, Grother teaches that the ODTs can promote systemic absorption through the oral mucosa. *Supra*, Section VI.B. This teaching, and thus Grother, are irrelevant because budesonide has no significant systemic activity. Thus, nothing in Grother points to formulating an orally dispersing tablet with a topical corticosteroid, let alone budesonide, for the treatment of inflammation of the upper gastrointestinal tract or EoE. A POSA would thus understand that Grother did not recognize, and therefore did not teach or suggest, that orally disintegrating compositions could be used to topically administer budesonide to the upper gastrointestinal tract or esophagus for the treatment of EoE. EX2007, ¶ 125.

The FDA Guidance does not cure this deficiency in Grother. Rather, as explained above and as acknowledged by Petitioner's expert, the FDA Guidance merely provides a definition of ODTs. EX2011, 56:15-21. The FDA Guidance does

not address any particular disease, such as EoE, any particular class of drugs, such as corticosteroids, or recognize the use of ODT to topically deposit topically acting drugs on the upper gastrointestinal tract. EX2011, 55:14-23. All the FDA Guidance does, therefore, is provide a POSA with the general definition of ODTs. EX2011, 56:15-21. The generalized disclosures in Grother and the FDA Guidance therefore cannot disclose the required claim limitations of the '828 patent. EX2007, ¶¶ 123-131.

2. No motivation to formulate the claimed ODT based on Grother in view of the FDA Guidance – No Recognition that an ODT could topically deposit a corticosteroid on the Upper Gastrointestinal Tract

Petitioner again uses impermissible hindsight to support its conclusory arguments for motivation to combine. As explained above, a POSA would have understood Grother to disclose a general ODT platform that is not directed to any disease or particular drug, and does not teach or suggest using an ODT to topically deposit a topically active drug on the upper gastrointestinal tract. EX2007, ¶ 128. Similarly, a POSA would understand the FDA Guidance to supply a definition for ODTs, and not teach or suggest using an ODT to topically deposit a topically active drug on the upper gastrointestinal tract. EX2007, ¶ 92; EX2011, 56:15-21. Petitioner argues that a POSA "would have been motivated to select budesonide as an active ingredient in Grother's fast dispersing solid dosage form based on

Grother's express disclosure to do so." Pet., 48. Petitioner asserts that this would not require a "leap of inventiveness." Pet., 48 (citing *Boston Sci. Scimed, Inc. v. Cordis Corp.*, 554 F.3d 982, 991 (Fed. Cir. 2009)). But Petitioner misstates the law. The law actually states that "[d]isparate embodiments in one reference can only be combined if they are a 'predictable variation' of each other that does not 'require a leap of inventiveness.'" *Apple Inc. v. Corephotonics, Ltd.*, Case IPR2018-01348, 2019 WL 3714167, at *2 (P.T.A.B. Aug. 5, 2019) (Paper 11) (quoting *Boston Sci. Scimed, Inc. v. Cordis Corp.*, 554 F.3d 982 (Fed. Cir. 2009)). But the drugs in Grother are not predictable variations.

Grother cites hundreds of drugs across six pages. EX1008, 16-21. While corticosteroids are listed, Grother does not highlight them in any way or distinguish between systemic and topical corticosteroids. EX1008, 18:15-18. Rather, systemic and topical corticosteroids are contained in the same list, with no distinction. EX1008, 18:15-18. The drugs in Grother span a vast variety of drug classes, from analgesics to vaccines and stimulants, the overwhelming majority of which are systemically active and are absorbed through the lower gastrointestinal tract. EX1008, 18:15-18. Petitioner does not and cannot argue that the various drugs listed in Grother are "predictable variations" of each other. This is particularly true where budesonide acts topically, whereas nearly all other drugs are systemically active and must be adsorbed in the blood stream in order to provide a therapeutic effect.

Because of the wide array of drugs disclosed, and the lack of guidance on formulating an ODT with a topically acting drug for topical deposition on the upper gastrointestinal tract, the Petitioner's arbitrary selection of budesonide cannot be a "predictable variation," and Patent Owner's claims involve a leap of inventiveness. EX2007, ¶¶ 127-130.

It is clear that Petitioner has arbitrarily picked budesonide from Grother's non-limiting list simply because these drugs are recited in the claims of the '828 patent. EX2007, ¶ 129. The "rationale … that a person of ordinary skill would 'pick and choose' features from various embodiments of [a single reference], simply because they are in the same [reference], is insufficient to demonstrate a reasonable likelihood of prevailing on this challenge[.]" *LG Display Co. v. Innovative Display Techs. LLC*, Case IPR2014-01362, Paper 12, at 13 (P.T.A.B. Mar. 2, 2015).

Petitioner's reliance on the FDA Guidance does not provide the requisite motivation that is absent from Grother. Instead of offering any explanation, Petitioner recites that a "POSA seeking to formulate budesonide into an orally disintegrating pharmaceutical composition would be highly motivated to follow the FDA Guidance that such a composition should disintegrate within 30 seconds or less when tested using the USP <701> Disintegration Test." Pet., 56. As discussed above, Petitioner does not explain why a POSA would be motivated to formulate budesonide in an ODT that disintegrates within 30 seconds using the USP <701>

Disintegration Test for topical deposition of budesonide on the upper gastrointestinal tract in the first place. The FDA Guidance does not remedy this deficiency because the FDA Guidance is silent regarding topical corticosteroids, topical deposition of any active on the upper gastrointestinal tract, or topical treatment of inflammation of the upper gastrointestinal tract. The Petitioner's conclusory statements must be rejected. "To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness." *In re Magnum*, 829 F.3d at 1380.

Because Grother fails to recognize that ODTs can be used to topically administer a therapeutically effective amount of a topical drug to the upper gastrointestinal tract, and the FDA Guidance is silent regarding topical corticosteroids and topical treatment of the upper gastrointestinal tract, a POSA would not have been motivated to formulate an ODT with budesonide as asserted by Petitioner's argument. For this reason, Ground 2 must fail.

a. Grother and the FDA Guidance Do Not Render Obvious the Claimed Doses (Claims 1[i], 15-16)

Grother does not disclose the specific dose ranges required by claims 1 and 15-16. Petitioner cites to Grother's disclosure of general dosing, and that the "upper value" is generally 60 mg. Pet., 48. The dosages disclosed in Grother relate to

dosing generally, not topically active corticosteroids specifically, and certainly not for a corticosteroid that is topically deposited on the upper gastrointestinal tract to treat inflammation or EoE. None of the unasserted references discussing budesonide disclose an ODT containing budesonide, and nearly all references involved are designed to prevent budesonide release until the drug reaches the lower gastrointestinal tract or liquid formulations. Pet., 48-49. A POSA would understand that formulating an ODT to topically deposit a corticosteroid in the upper gastrointestinal tract would involve different considerations and likely different doses than liquid formulations, as well as enterically coated tablets and rectal foam dosage forms used for different conditions. Petitioner fails to explain how Grother discloses the claimed doses for an orally disintegrating solid pharmaceutical composition or orally disintegrating tablet containing a topical corticosteroid based on its general disclosures. EX2007, ¶¶ 132-133.

As discussed above, a POSA would not have any motivation or reasonable expectation of success to formulate an orally dispersing tablet containing budesonide with the claimed doses based on Grother and the FDA guidance (which does not disclose any dose for any drug). Petitioner's expert conclusively states that a POSA would have a reasonable expectation of success, but does not explain why or how. Pet., 49. For at least this reason, Petitioner's arguments must be rejected. *See In re Magnum*, 829 F.3d at 1380 (declaring that "a petitioner cannot employ mere

conclusory statements").

a. Grother Does Not Disclose the Claimed Method for Treatment (Claims 14)

Grother does not disclose the method disclosed in claim 14 of the '828 patent. As discussed above, Grother does not disclose any disease and therefore cannot disclose methods of treating EoE recited in claim 14 by administering an ODT. Thus, Petitioner has failed to establish prima facie obviousness for these claims, because all claim limitations are not taught by the asserted references.

There would also be no reasonable expectation of success in treating the inflammation of the upper gastrointestinal tract recited in claim 14 by administering an orally dispersing tablet. As discussed above and illustrated through Petitioner's evidence, previous solid formulations of budesonide largely involved enterically coated tablets for treating inflammation of the lower gastrointestinal tract. EX1025, EX1009, EX1010, EX1011, EX1012, EX1013, EX1026, EX1027, EX1028. There is no evidence in Grother, or the background art, that an ODT would or even could deposit a therapeutically effective amount of budesonide on upper gastrointestinal tract to treat inflammation as required by the claims. Therefore, there would be no reasonable expectation of success. EX2007, ¶¶ 134-135.

X. OBJECTIVE INDICIA OF NONOBVIOUSNESS

Secondary considerations also establish that the claims of the '828 patent are not obvious as of the priority date, including unexpected results and copying.

A. Unexpected Results

1. ODT Effectively Treats EoE

A study funded by Petitioner itself indicates the orally dispersing tablet containing 1 mg of budesonide is therapeutically effective and well-tolerated, further supporting the non-obviousness of the claimed invention. EX20006. As discussed above, liquid formulations of budesonide were known to be efficacious in treating EoE and candidiasis was a known side effect. Specifically, Dohil teaches that 8-12 mL of a viscous liquid formulation provides pan-esophageal coating that topically delivers an effective dose of budesonide to the esophagus to treat EoE. EX1002, [0067]. Further, a POSA would have known that oral budesonide administration causes candidiasis, and the longer budesonide was held in the mouth, the greater the chance of candidiasis developing. As a result, a POSA would not have expected an orally dispersing tablet that dispersed in the mouth within 60 seconds to be efficacious (because it would not produce 8-12 mL as discussed above) and would have been deterred from developing any dosage form that would be held in the mouth and increased the time budesonide resided in the mouth for the risk of increased prevalence on candidiasis.

Petitioner's study compared the claimed orally dispersing tablet to a 5 ml viscous solution containing budesonide (dosed twice a day, for a total of 10 ml viscous solution), such as the one disclosed in Dohil. EX2006. The study found that "interestingly," patients who received the tablet of 1 mg of budesonide twice daily achieved remission, similar to patients who received the viscous solution of 2 mg of budesonide twice daily. EX2006, 8. The study concluded that "no additional benefit could be shown for the higher dose of budesonide [tablet] (2 mg twice daily) used in our study compared with previous studies examining viscous suspensions." EX2006, 8. Based on the known efficacy of the viscous liquid formulations of budesonide, administered twice a day at a volume of 5 ml, for a total of 10 ml, or 8-12 ml as disclosed in Dohil, a POSA would not have expected an ODT that produces only 1-2 ml of solution and uses half the budesonide dose to be efficacious in providing the necessary pan-esophageal coverage in order to effectively treat EoE. EX2007, ¶¶ 136-138.

2. Reduced Side Effects Compared to other Formulations

Further, the incidence of candidiasis remained the same across all study groups. EX2006, 7. The study noted that this was similar to previous studies on topical corticosteroids for EoE. EX2006, 8. A POSA would have found this unexpected, as the orally dispersing tablet would have been held in the mouth for longer than the liquid formulation, and increase budesonide contact in the mouth,

resulting in more fungal infections. A POSA would therefore not have thought an orally dispersing tablet containing budesonide would have been efficacious or well tolerated for the treatment of EoE. EX2007, ¶ 139.

3. Budesonide and Sucralose are Expectedly Stable

U.S. Patent No. 9,867,780 (the '780 patent) describes an ODT formulated with budesonide and sucralose. The '780 patent reports that sucralose "surprisingly" improves stability and decreases degradation of budesonide in an ODT, compared another common sweetener according to the Petition. EX2028, 7:15-9:24 (*compare* Example 2 (ODT with sucralose) *with* Example 3 (ODT with aspartame) (showing that the ODT with aspartame has significantly increased impurities compared to the ODT with sucralose)); *see also* Pet. 13 ("In order to ensure adequate sweetness and taste masking, artificial sweeteners including aspartame, saccharin, and sucralose are included subject to regulatory guidelines."); EX2029. Thus, it would have been unexpected to a POSA that formulating the ODT with sucralose would result in a more stable ODT.

B. Copying

Petitioner's deliberate copying of the claimed orally dispersing tablet is further evidence of nonobviousness of the claimed invention. *Liqwd, Inc. v. L'Oreal USA, Inc.*, 941 F.3d 1133, 1136 (Fed. Cir. 2019) (copying by a competitor is evidence of nonobviousness) (citing *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392

F.3d 1317, 1325 (Fed. Cir. 2004)). Petitioner's commercial product is referred to as Jorveza®. Jorveza® is described as an orodispersiable tablet containing either 0.5 mg or 1 mg of budesonide, and is indicated for the treatment of eosinophil esophagitis. EX2030. Evidence of copying is supported by the table below, charting Petitioner's Jorveza® against the claims of the '828 patent.

Comparison of Claims of '828 Patent to Jorveza®

Claim 1	**Jorveza®**
1. An orally dispersing tablet comprising	"Jorveza 0.5 mg orodispersible tablets…Jorveza 1 mg orodispersible tablets" EX2030, 2; *see also* EX2030, 16, 19, 24
(i) about 0.5 mg to about 1 mg of budesonide;	"Each orodispersible tablet contains 0.5 mg of budesonide…Each orodispersible tablet contains 1 mg of budesonide." EX2030, 2.
(ii) at least one pharmaceutically acceptable ingredient which facilitates the dispersal of the tablet in the oral cavity; and	"List of excipients Jorveza 0.5 mg and 1 mg orodispersible tablets Disodium hydrogen citrate Docusate sodium Macrogol (6000) Magnesium stearate Mannitol (E 421) Anhydrous monosodium citrate Povidone (K25) Sodium hydrogen carbonate Sucralose" EX2030, 10
(iii) sucralose, mannitol, magnesium stearate, polyvinyl pyrrolidone, polyethylene glycol, or combinations thereof;	"List of excipients Jorveza 0.5 mg and 1 mg

	orodispersible tablets Disodium hydrogen citrate Docusate sodium Macrogol (6000) Magnesium stearate Mannitol (E 421) Anhydrous monosodium citrate Povidone (K25) Sodium hydrogen carbonate Sucralose" EX2030, 10
wherein upon administration a therapeutically effective amount of budesonide is deposited topically in the upper gastrointestinal tract, and	"Jorveza is indicated for the treatment of eosinophilic esophagitis (EoE) in adults (older than 18 years of age)." EX2030, 2 "There should be at least 30 minutes before eating or drinking or performing oral hygiene. Any oral solutions, sprays or chewable tablets should be used at least 30 minutes before or after administration of Jorveza. The orodispersible tablet should not be chewed or swallowed undissolved. These measures ensure optimal exposure of the esophageal mucosa to the active substance by using the adhesive characteristics of mucins in the saliva." EX2030, 3, 26
wherein the orally dispersing tablet disintegrates within 60 seconds in simulated saliva when tested using the USP <701> Disintegration Test.	Testing conducted during the EPO proceedings concluded that Jorveza® disintegrates within 60 seconds when measured using the USP <701> Disintegration Test. EX2029
Claim 2	**Jorveza®**

2. The orally dispersing tablet of claim 1, wherein the at least one pharmaceutically acceptable ingredient which facilitates the dispersal of the tablet in the oral cavity is at least one disintegrant.	"List of excipients Jorveza 0.5 mg and 1 mg orodispersible tablets Disodium hydrogen citrate Docusate sodium Macrogol (6000) Magnesium stearate Mannitol (E 421) Anhydrous monosodium citrate Povidone (K25) Sodium hydrogen carbonate Sucralose" EX2030, 10
Claim 3	**Jorveza®**
The orally dispersing tablet of claim 1, comprising sucralose.	"List of excipients Jorveza 0.5 mg and 1 mg orodispersible tablets Disodium hydrogen citrate Docusate sodium Macrogol (6000) Magnesium stearate Mannitol (E 421) Anhydrous monosodium citrate Povidone (K25) Sodium hydrogen carbonate Sucralose" EX2030, 10
Claim 4	**Jorveza®**
4. The orally dispersing tablet of claim 1, comprising sucralose and mannitol.	"List of excipients Jorveza 0.5 mg and 1 mg orodispersible tablets Disodium hydrogen citrate Docusate sodium Macrogol (6000) Magnesium stearate Mannitol (E 421)

	Anhydrous monosodium citrate Povidone (K25) Sodium hydrogen carbonate Sucralose" EX2030, 10
Claim 5	**Jorveza®**
The orally dispersing tablet of claim 1, comprising sucralose, mannitol, and magnesium stearate.	"List of excipients Jorveza 0.5 mg and 1 mg orodispersible tablets Disodium hydrogen citrate Docusate sodium Macrogol (6000) Magnesium stearate Mannitol (E 421) Anhydrous monosodium citrate Povidone (K25) Sodium hydrogen carbonate Sucralose" EX2030, 10
Claim 6	**Jorveza®**
The orally dispersing tablet of claim 1, comprising sucralose, mannitol, magnesium stearate, and polyvinyl pyrrolidone.	"List of excipients Jorveza 0.5 mg and 1 mg orodispersible tablets Disodium hydrogen citrate Docusate sodium Macrogol (6000) Magnesium stearate Mannitol (E 421) Anhydrous monosodium citrate Povidone (K25) Sodium hydrogen carbonate Sucralose" EX2030, 10
Claim 7	**Jorveza®**
The orally dispersing tablet of claim 1, comprising sucralose, mannitol, magnesium stearate, polyvinyl pyrrolidone, and polyethylene glycol.	"List of excipients Jorveza 0.5 mg and 1 mg orodispersible tablets

	Disodium hydrogen citrate Docusate sodium Macrogol (6000) Magnesium stearate Mannitol (E 421) Anhydrous monosodium citrate Povidone (K25) Sodium hydrogen carbonate Sucralose" EX2030, 10
Claim 8	**Jorveza®**
The orally dispersing tablet of claim 1, comprising sucralose and magnesium stearate.	"List of excipients Jorveza 0.5 mg and 1 mg orodispersible tablets Disodium hydrogen citrate Docusate sodium Macrogol (6000) Magnesium stearate Mannitol (E 421) Anhydrous monosodium citrate Povidone (K25) Sodium hydrogen carbonate Sucralose" EX2030, 10
Claim 9	**Jorveza®**
The orally dispersing tablet of claim 1, comprising sucralose and polyvinyl pyrrolidone.	"List of excipients Jorveza 0.5 mg and 1 mg orodispersible tablets Disodium hydrogen citrate Docusate sodium Macrogol (6000) Magnesium stearate Mannitol (E 421) Anhydrous monosodium citrate Povidone (K25) Sodium hydrogen carbonate Sucralose" EX2030, 10

Claim 10	**Jorveza®**
10. The orally dispersing tablet of claim 1, comprising sucralose and polyethylene glycol.	"List of excipients Jorveza 0.5 mg and 1 mg orodispersible tablets Disodium hydrogen citrate Docusate sodium Macrogol (6000) Magnesium stearate Mannitol (E 421) Anhydrous monosodium citrate Povidone (K25) Sodium hydrogen carbonate Sucralose" EX2030, 10
Claim 11	**Jorveza®**
11. The orally dispersing tablet of claim 1, comprising two or more of sucralose, mannitol, magnesium stearate, polyvinyl pyrrolidone or polyethylene glycol.	"List of excipients Jorveza 0.5 mg and 1 mg orodispersible tablets Disodium hydrogen citrate Docusate sodium Macrogol (6000) Magnesium stearate Mannitol (E 421) Anhydrous monosodium citrate Povidone (K25) Sodium hydrogen carbonate Sucralose" EX2030, 10
Claim 12	**Jorveza®**
12. The orally dispersing tablet of claim 1, comprising three or more of sucralose, mannitol, magnesium stearate, polyvinyl pyrrolidone or polyethylene glycol.	"List of excipients Jorveza 0.5 mg and 1 mg orodispersible tablets Disodium hydrogen citrate Docusate sodium Macrogol (6000) Magnesium stearate

	Mannitol (E 421) Anhydrous monosodium citrate Povidone (K25) Sodium hydrogen carbonate Sucralose" EX2030, 10
Claim 13	**Jorveza®**
13. The orally dispersing tablet of claim 1, comprising four or more of sucralose, mannitol, magnesium stearate, polyvinyl pyrrolidone or polyethylene glycol.	"List of excipients Jorveza 0.5 mg and 1 mg orodispersible tablets Disodium hydrogen citrate Docusate sodium Macrogol (6000) Magnesium stearate Mannitol (E 421) Anhydrous monosodium citrate Povidone (K25) Sodium hydrogen carbonate Sucralose" EX2030, 10
Claim 14	**Jorveza®**
14. A method for treating eosinophilic esophagitis comprising administering to an individual in need thereof an orally dispersing tablet according to claim 1.	"Jorveza is indicated for the treatment of eosinophilic esophagitis (EoE) in adults (older than 18 years of age)." EX2030, 2 "There should be at least 30 minutes before eating or drinking or performing oral hygiene. Any oral solutions, sprays or chewable tablets should be used at least 30 minutes before or after administration of Jorveza. The orodispersible tablet should not be chewed or swallowed undissolved. These measures ensure optimal exposure of the esophageal mucosa to the active substance by using the adhesive characteristics of mucins in

	the saliva." EX2030, 3, 26 "Jorveza contains the active substance budesonide, a corticosteroid medicine that reduces inflammation. It is used in adults (older than 18 years of age) to treat eosinophilic oesophagitis, which is an inflammatory condition of the gullet (food pipe) that causes problems with swallowing food." EX2030, 24
Claim 15	**Jorveza®**
15. The orally dispersing tablet of claim 1, comprising about 0.5 mg of budesonide.	"Jorveza 0.5 mg orodispersible tablets" EX2030, 2; *see also* EX2030, 16, 19, 24
Claim 16	**Jorveza®**
16. The orally dispersing tablet of claim 1, comprising about 1 mg of budesonide.	"Jorveza 1 mg orodispersible tablets" EX2030, 2; *see also* EX2030, 16, 19, 24

XI. CONCLUSION

For the foregoing reasons, Petitioner has failed to establish that the challenged claims of the '828 patent are unpatentable. Patent Owner respectfully requests the Board find the challenged claims patentable over the grounds in the Petition.

Date: September 9, 2025

Respectfully submitted,

BY: /Sanya Sukduang/
Sanya Sukduang
Reg. No. 46,390
Counsel for Patent Owner

Cooley LLP
ATTN: Patent Group
1299 Pennsylvania Ave., NW
Suite 700
Washington D. C. 20004
Tel: (202) 776-2982
Fax: (202) 842-7887

CERTIFICATE OF COMPLIANCE WITH WORD COUNT

Pursuant to 37 C. F. R. § 42. 24(d), I certify that this response complies with the type-volume limits of 37 C. F. R. § 42. 24(c)(1) because it contains 11,981 words, according to the word-processing system used to prepare this petition, excluding the parts of this response that are exempted by 37 C.F.R. § 42.24(c) (including the table of contents, a table of authorities, an exhibits list, a listing of facts, a certificate of service or this certificate of word count, or appendix of exhibits).

Date: September 9, 2025

Respectfully submitted,

Cooley LLP
ATTN: Patent Group
1299 Pennsylvania Ave., NW
Suite 700
Washington D. C. 20004
Tel: (202) 776-2982
Fax: (202) 842-7887

BY: /Sanya Sukduang/
Sanya Sukduang
Reg. No. 46,390
Counsel for Patent Owner

CERTIFICATION OF SERVICE
UNDER 37 C. F. R. §§ 42. 6(e), 42. 105(a)

I, Sanya Sukduang, hereby certify that on September 9, 2025, the foregoing Patent Owner's Response and Exhibits 2003–2008, 2010–2014, 2016–2018, 2020–2023, and 2026–2030 pursuant to 37 C. F. R. § 42.8 were served electronically via email on the following counsel of record for Petitioner as follows:

Nathanael Luman
Eric S. Furman
Philip J. Minnick
KNOBBE, MARTENS, OLSON, & BEAR, LLP
2nrl@knobbe. com
2esf@knobbe. com
2pjm@knobbe. com
BoxDRFPGL.001LP@knobbe. com

DATED: September 9, 2025

/Sanya Sukduang/
Sanya Sukduang
Reg. No. 46,390