

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RESMED CORP.,
Petitioner,

v.

CLEVELAND MEDICAL DEVICES INC.,
Patent Owner.

Case IPR2025-00157
U.S. Patent No. 11,602,284

**PATENT OWNER'S PRELIMINARY RESPONSE
UNDER 37 C.F.R. § 42.107**

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PATENT OWNER'S EXHIBIT LIST

Exhibit	Description
2001	Response to Non-Final Rejection from U.S. Patent No. 12,213,775 File History, filed August 28, 2024
2002	Non-Final Rejection from U.S. Patent No. 12,213,775 File History, filed May 30, 2024
2003	Notice of Allowance from U.S. Patent No. 12,213,775 File History, filed September 24, 2024
2004	U.S. Patent No. 6,644,311 ("Truitt"), produced by ResMed on September 20, 2023 in <i>Cleveland Med. Devices, Inc. v. ResMed, Inc.</i> , No. 22-cv-00794-JLH (D. Del.) (the "Delaware Case"), bearing bates numbers RMD-306019-28
2005	U.S. Patent No. 7,575,005 ("Mumford"), produced on February 21, 2023 in the Delaware Case, bearing bates numbers RMD-074675-97
2006	U.S. Patent Application No. 2002/0185130 ("Wright"), produced on February 21, 2023 in the Delaware Case, bearing bates numbers RMD-074307-23
2007	Excerpts of Exhibit A03 – Invalidity Chart of '284 Patent (Farrell) attached to ResMed's Initial Invalidity Contentions, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-02221-BMB (N.D. Ohio), served on July 15, 2024
2008	Excerpts of Exhibit A04 – Invalidity Chart of '284 Patent (Bao) attached to ResMed's Initial Invalidity Contentions, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-02221-BMB (N.D. Ohio), served on July 15, 2024
2009	Excerpts of Exhibit A03 – Validity Chart of '284 Patent (Farrell) attached to CleveMed's Initial Validity Contentions, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-02221-BMB (N.D. Ohio), served on August 5, 2024

Exhibit	Description
2010	Excerpts of Exhibit A04 –Validity Chart of ‘284 Patent (Bao) attached to CleveMed’s Initial Validity Contentions, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-02221-BMB (N.D. Ohio), served on August 5, 2024
2011	Excerpts of Plaintiff and Counterclaim Defendant ResMed Corp.’s Initial Invalidity and Unenforceability Contentions cover pleading, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-02221-BMB (N.D. Ohio), served on July 15, 2024
2012	Excerpts of Defendant ResMed Inc.’s Third Amended Initial Invalidity Contentions cover pleading from the Delaware Case, served on November 10, 2023
2013	Excerpts of Plaintiff ResMed Corp.’s Response and Affirmative Defenses to Defendant’s Counterclaims for Patent Infringement, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-02221-BMB, Dkt. No. 66 (N.D. Ohio), filed on March 18, 2024
2014	Excerpts of Defendant ResMed Inc.’s Final Invalidity Contentions cover pleading from the Delaware Case, served on November 20, 2023
2015	Excerpts of Declaration of James Hannah in Support of Defendant CleveMed’s Opposition to Plaintiff ResMed’s Motion for Temporary Stay Pending Mediation, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-02221-BMB, Dkt. No. 87-1 (N.D. Ohio), filed on August 21, 2024
2016	Excerpts of Declaration of Lisa Kobialka in Support of Defendant CleveMed’s Opposition to Plaintiff ResMed’s Motion to Stay, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-02221-BMB, Dkt. No. 100-1 (N.D. Ohio), filed on January 24, 2025
2017	Excerpts of ResMed Corp.’s Reply in Support of its Motion to Stay, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-02221-BMB, Dkt. No. 101 (N.D. Ohio), filed on January 31, 2025

Patent Owner's Preliminary Response
IPR2025-00157 (U.S. Patent No. 11,602,284)

Exhibit	Description
2018	Excerpts of Defendant Cleveland Medical Devices, Inc.'s Memorandum in Support of its Motion to Dismiss or Transfer, <i>ResMed Corp. v. Cleveland Med. Devices, Inc.</i> , No. 23-cv-00500-TWR-JLB, Dkt. No. 10-1 (S.D. Cal.), filed on June 5, 2023

I. INTRODUCTION

The Board should deny *inter partes* review because the *General Plastic* factors weigh in favor of denying this follow-on Petition. The Board denied Petitioner's first challenge because Petitioner did not show that the '284 Patent was eligible for post grant review ("PGR"). Although the PGR Petition was not denied on the merits, CleveMed served its arguments about the art raised in the PGR in response to ResMed's Invalidity Contentions. Four months after receiving those arguments, and only days before the statutory deadline, Petitioner filed this Petition, abandoning the grounds presented in the PGR Petition. In view of these facts, each of the *General Plastic* factors weighs in favor of denying institution.

The Board should also deny the Petition because the *Fintiv* factors weigh in favor of denial. Although the case is currently stayed, the parties have already expended substantial resources in the litigation, Petitioner waited as long as statutorily possible to file this Petition, the obviousness issues raised in this case are nearly identical to those raised in district court, and not only are the parties to the co-pending litigation identical, Petitioner *initiated* the parties' current dispute over the '284 Patent.

The Board should also deny the Petition under 35 U.S.C. § 325(d) because Petitioner raises substantially the same arguments already addressed during prosecution of the '284 Patent and its family members. Petitioner's arguments

concerning Truitt, Kumar, and Mumford are substantially the same as those the Examiner raised and ultimately dropped based on Farrell (in combination with Pirazada during prosecution of the '284 Patent) and with Geva (during prosecution of its child patent, U.S. Patent No. 12,213,775 ("775 Patent")). Petitioner's attempt to reassert the same arguments already addressed during prosecution under the guise of facially new references warrants denial under 35 U.S.C. § 325(d).

The '284 Patent is also patentable on the merits. Neither Petitioner nor its experts show that a POSITA would be motivated to make modifications to the Truitt's processor without the benefit of hindsight because neither reference suggests implementing Kumar's functionality on a processor like Truitt's. In regards to the modifications of Truitt based on Mumford, Petitioner fails to show that Mumford's algorithm would be functional in Truitt's system without the existence of the electrodes within the mask worn by the subject. As such, the '284 Patent's innovative solutions are patentable.

II. OVERVIEW OF THE '284 PATENT AND PRIOR ART

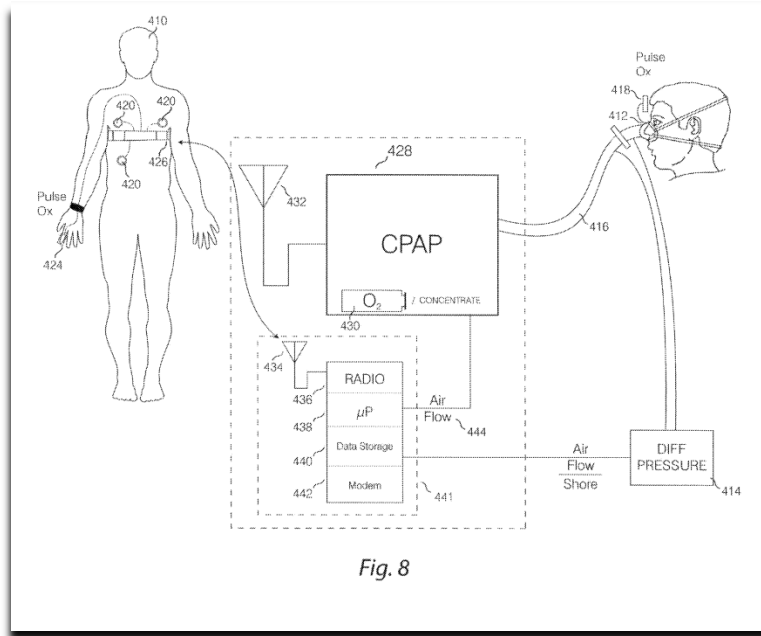
A. The '284 Patent (Ex. 1001)

The '284 Patent relates to a novel integrated diagnosis and treatment device for patients suffering from sleep apnea. '284 Patent, Abstract, 1:27-31. The device analyzes the patient's breathing metrics, including parameters related to a patient's

breath, such as respiratory airflow and effort, and blood oxygenation levels and adjusts the treatment based, at least in part, on this analysis. *Id.*, 2:46-56; 3:17-52.

The claimed invention uses a positive airway pressure (“PAP”) device with internal airflow sensors that detect the patient’s airflow sensor data. *Id.* at 6:10-7:30. The readings from airflow sensors are collected and processed by the PAP’s device processor(s) to indicate the data of severity of a patient’s sleep disorder symptoms that is used along with the usage of the PAP device to generate an index of treatment efficacy, which are transferred to a remote internet site and downloadable on a cell phone for display. *See id.* at Claim 1. The PAP device may be adjusted remotely based on the calculated index and/or data of the severity of the sleep disorder symptoms transferred to the remote internet site. *See id.* at Claims 5, 6.

An exemplary embodiment of the PAP device, shown below, includes a pressure generator, a blower, hose, mask or nasal cannula, flow sensor, and pressure sensor as in Figure 7, with a microprocessor 438 for processing the data or signals from the flow sensor to determine the data of severity of the patient’s sleep disorder symptoms and/or index of treatment efficacy:



'284 Patent, FIG. 8; *see also id.* at FIG. 7. The calculated information is used to control the pressure or flow of gas provided to the subject, initiate a medicinal intervention, monitor the condition of the subject, and/or monitor the usage of the pressure support device. *Id.* at 23:7-18, Claims 5, 6.

B. '284 Patent Prosecution History

The '284 Patent's priority date is November 4, 2005. *ResMed Corp. v. Cleveland Med. Devices, Inc.*, No. PGR2024-00012, Paper 9 at 5 (P.T.A.B. Oct. 17, 2024). During prosecution, the Examiner cited a number of references, including the Mumford and Wright references used in the Petition. '284 Patent at References Cited. In an Office Action, the Examiner indicated that "the closest prior art reference is Farrell" and "neither Farrell nor the prior art of record teaches the

positive airway pressure (PAP) sleep disorder treatment system of base claim 21.”

Ex. 1002 at 106-09.

Following CleveMed's response to the Examiner's rejections, the Examiner issued a 35 U.S.C. § 103(a) rejection using Farrell (2007/0161913 A1¹) in view of Pirzada (2007/0155208 A1). Ex. 1002 at 165. There, the Examiner alleged that Farrell satisfied all limitations except “the first software . . . configured to be used with a cell phone” but Pirzada taught a “cell phone with downloaded software [that] can be used with a PAP machine to display data calculated by the PAP device.” *Id.* at 170. However, during an interview, the Examiner agreed that Pirzada's filing date was after the priority date of the present invention and agreed it was not valid prior art. *Id.* at 188, 206.

C. Truitt (Ex. 1007)

Truitt discloses a flow assembly for a conventional PAP device with no disclosed ability to integrate the PAP device with other devices. The Truitt invention “pertains to a technique for measuring gas flow and/or volume in a pressure support system” so that its signal “can be used in the same manner” as those sensors used in conventional PAP devices. Truitt at 1:12-13, 3:41-46, 3:66-4:3. Thus, Truitt

¹ This is the same reference used by Petitioner in its PGR petition. See PGR2024-00012, Ex. 1012.

informs a POSITA that utilization of the Truitt invention would not provide any new functionality or data to conventional PAP devices, just that the conventional data may be more accurate. *Id.* at 3:66-4:3, 5:35-38, 6:38-60. Truitt does not disclose transmitting data anywhere outside of the PAP device or disclose any new calculations or signal processing techniques that added functionality to these prior art PAP devices.

In describing the prior art, Truitt shows the conventional CPAP functionalities as monitoring the pressure of flow of gas delivered to the patient and adjusting the pressure or flow in a feedback fashion to meet the desired prescription pressure level and adjust pressure based upon breathing cycle. *Id.* at 2:60-3:4. Truitt further describes the conventional auto-titration mode, “where the flow of breathing gas and the pressure level thereof is controlled based on the conditions of the patient, these pressure and flow sensors, or other sensors, such as a microphone, are used to detect snoring, apneas, hypopneas, etc.” *Id.* at 3:4-9; *id.* at 1:35-43 (describing the same known CPAP therapy, which changes pressure based on the detection of snoring or upper airway resistance).

As was known at the time, these functions were highly inaccurate and not suitable for patient monitoring because PAP devices were not controlled by physiological feedback and supplied air at different periods that were not always beneficial to the patient. *Id.* at 3:21-36; *see also* Ex. 2001 (‘775 Patent, Response

Non-Final Rejection) at 16 (citing Geva para. [0299]: “[c]onventional CPAP systems . . . have several drawbacks: (1) apnea events may return whenever the CPAP is used improperly, which is normally the case because conventional CPAP systems are poorly controlled, or not controlled at all, by physiological feedback. Therefore, these systems output a constant continuous pressure, or vary the pressure to coincide with the person’s breathing pattern, or start with low pressure, after which the pressure is gradually increased . . . From technical point of view conventional CPAP systems are inefficient, because they supply, at different periods, air that is not beneficial to the patient.”).

D. Kumar (Ex. 1008)

Kumar discloses a system and method for network-based monitoring of physiological data. Kumar at Abstract. Kumar relies upon several components: a patient-side device 102, computing device 110, an engine implemented on a central server 106, and a provider-side device 104.

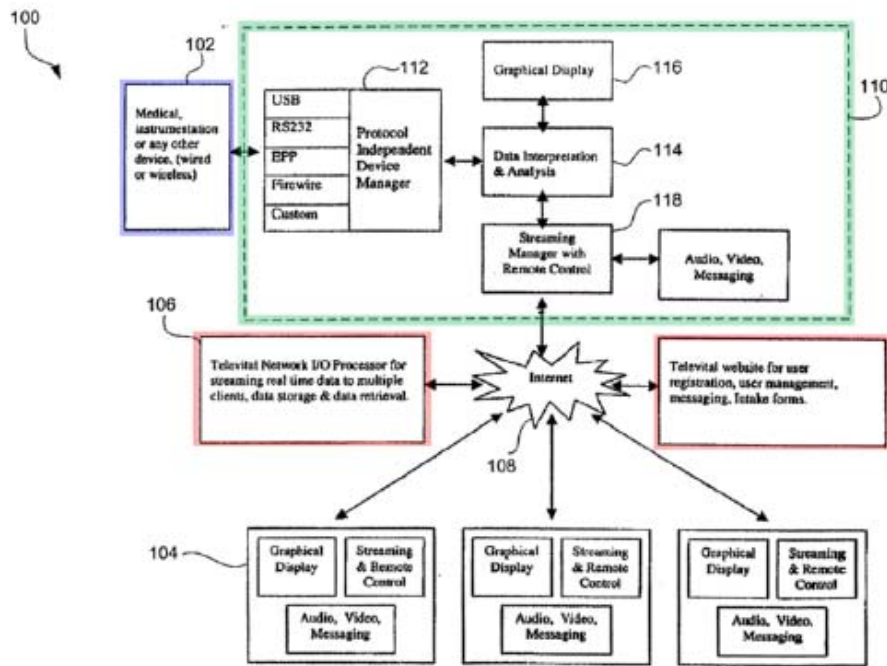


Fig. 1A

Pet. at 14 (citing Kumar at Fig. 1A) (annotated); *see also* Kumar at ¶ [0067] (“[T]he system includes one or more patient-side devices 102 for collecting data from a patient/client, one or more provider-side devices 104, and an engine implemented on a central server 106.”); *id.* at Fig. 5, ¶¶ [0078]-[0083], [0091]-[0092].

The data transmitted from the patient-side device is received by the computing device where it is analyzed using the computing device’s data interpretation and analysis module 114. Kumar at ¶ [0075] (“data interpretation and analysis module 114 [that] is used to interpret the data stream from the client-side device, perform mathematical analysis on the data using FFT, DFT, etc., and generate statistics.”). Further, a POSITA would understand, based on the type of sensors and devices

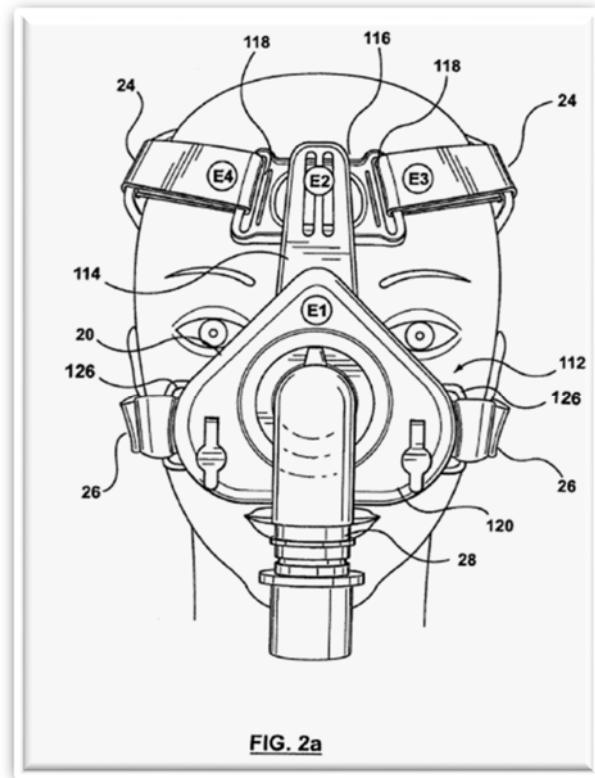
described in Kumar, that its interpretation and analysis module can receive, process, and analyze raw data from the connected device. Kumar at ¶ [0071] (describing the different patient-side devices Kumar is intended to receive data from); *id.* at ¶ [0179] (“Data collected by the unit is processed by the system to provide real-time medical monitoring, summary reports, statistical calculations, and visual displays, which can further be tailored for the healthcare provider’s particular needs, and can each be tailored for a particular protocol.”); *see also id.* at ¶¶ [0010, 0081, 0179, 0192], Claim 6 (“The system as recited in claim 5, wherein the computing device processes the data prior to receipt of the data by the engine.”).

Finally, in regards to Kumar’s use for “Sleep Apnea-Hypopnea Syndrome,” Kumar discloses that its system is intended for monitoring devices used in traditional in-home sleep testing, using polysomnography and oximetry, and in standard in-laboratory polysomnography and breathing monitoring, using thermocouples or thermistors, thoracic EMG or inductive plethysmography, and oximetry. Kumar at ¶¶ [0239-0241]. Kumar is silent as to its use in therapy using PAP devices and only considers its application in the testing of sleep apnea and hypopnea.

E. Mumford (Ex. 1009)

Mumford is directed to a mask assembly with integrated sensors for sensing the efficacy of treatment of medical conditions. Mumford at 1:20-22. “The mask

assembly 12 [] further includes sensors (e.g., electrodes E1, E2, E3, E4 and E5 of FIGS. 2a and 2b) positioned on the nasal mask 12, the straps”



Mumford at FIGS 2a-b, 7:22-25, 9:40-10:24. The mask sensors are connected to the monitoring unit and include electrodes for detecting EEG, EMG, EOG, and sensors for detecting blood oximetry, body position, and pressure. *Id.* at 7:25-33. The sensors are integrated directly on the inner surface of the mask so that the electrodes rest against the skin of the wearer. *Id.* at 7:58-60, 8:24-27, 8:40-45 (providing examples of the sensors that are preferable because they require minimal preparation of the skin of the CPAP wearer), 8:46-67 (discussing metal, saline, disk, and peel and stick electrodes that may directly integrated into the mask and require additional

preparation prior to use), 9:2-6 (discussion how it is beneficial for the wearer to prepare their skin in the locations where the electrodes are used).

These electrodes are “located at predetermined locations on the face and head of the user of the wearer 18 in order to obtain good signal quality and different types of physiological data with a minimal number of electrodes.” *Id.* at 9:17-39 (discussing the physiological data collected from the electrodes providing data related to the CPAP wearer’s brainwaves, facial muscle tone and eye movements). Mumford also discloses that other electrode locations can be used, such as “below and beside one eye” or vertically flipping the location of electrode E1 with respect to electrodes E3 and E4. *Id.* at 10:25-50. The E1-E5 electrodes can be used in different combinations but in each instance, Mumford discloses using multiple sensors for gathering physiological information. *Id.* at 10:51-11:48. Thus, Mumford directs a POSITA that multiple sensor electrodes are needed to supply multiple channels of physiological information that are collected for sleep stage determination. *Id.* at 10:66-11:16.

Mumford has an alternative mask assembly embodiment with an integrated oximeter and pressure and position sensors. *Id.* at 11:66-12:21. In that embodiment, the pressure transducer is disposed within the nasal cavity of the mask so that it is in close proximity to the gas inlet. *Id.* The pressure transducer is used to detect the pressure within the mask for deriving the breathing rate of the wearer in order to

provide an indication of apnea and hypopnea events. *Id.* at 12:42-46. The electrodes and sensors are connected to a monitoring unit that contains mask interface 602 module, which connects the sensors on the mask assembly to the monitoring unit. *Id.* at 14:65-66. The physiological information provided by the sensors is processed by the monitoring unit according to a sleep efficacy algorithm that determines the sleep stage of the wearer and how many arousals they experienced. *Id.* at 7:34-42. Mumford also discloses using these parameters to control the CPAP. *Id.* at 7:46-51.

The sleep efficacy algorithm uses “a frontal staging algorithm, ***based on at least the electrode signals***, to determine which stage of sleep the wearer [] is in.” *Id.* at 15:39-16:3 (emphasis added). A POSITA would understand that it is important for Mumford’s sleep efficacy algorithm to rely on information from a combination of signals from the integrated electrodes as the inputs to its algorithm. *Id.* at 15:42-46. Thus, without at least a combination of electrodes being used, Mumford’s sleep efficacy algorithm would be useless. *See id.* at Claims 1, 17-19, 24 (Mumford independent claims all claiming multiple sensors and electrodes used within the mask assembly).

III. THE BOARD SHOULD DENY THIS FOLLOW-ON PETITION

The Board should deny this follow-on Petition under the *General Plastic* framework. The Board uses the seven *General Plastic* factors discussed below to evaluate “the potential impacts on both the efficiency of the *inter partes* review

process and the fundamental fairness of the process for all parties.” *General Plastic Indus. Co. v. Canon Kabushiki Kaisha*, No. IPR2016-01357, Paper 19 at 15-18 (P.T.A.B. Sept. 6, 2017) (precedential); *see also* PTAB Consolidated Trial Practice Guide at 56-57 (Nov. 2019).

A. Factor 1: Whether the Same Petitioner Previously Filed a Petition Directed to the Same Claims of the Same Patent

Petitioner already challenged the '284 Patent at the PTAB, in PGR2024-00012. The Board denied institution of ResMed's petition. *ResMed Corp. v. Cleveland Med. Devices, Inc.*, No. PGR2024-00012, Paper 7 (P.T.A.B. June 24, 2024) (*see* Ex. 1012 at 258-59). This factor weighs in favor of the Board denying institution. *HTC Corp. v. Ancora Techs., Inc.*, No. IPR2021-00570, Paper 17 at 8-10 (P.T.A.B. June 10, 2021) (finding Factor 1 in favor of denial when the petition followed a CBM petition that was denied without reaching the merits of the prior art ground).

B. Factor 2: Whether at the Time of Filing of the First Petition the Petitioner Knew of the Prior Art Asserted in the Second Petition or Should Have Known of It

This factor weighs in favor of the Board denying institution because ResMed knew or should have known about the art asserted in this Petition when it filed its first petition. Petitioner presents no evidence that it could not have filed this Petition at the time it filed its first petition or around the time it served its invalidity conventions.

ResMed cited Truitt, Wright, and Mumford in the co-pending litigation before it filed the first petition, and Dong was used in the first petition. Ex. 2004 (Truitt); Ex. 2005 (Mumford); Ex. 2006 (Wright) (Truitt, Mumford and Wright produced by ResMed in 2023 in the Delaware district court case); PGR2024-00012, Petition at 7 (citing Dong). Although Kumar was not produced in the litigation, Petitioner does not say when it first became aware of Kumar or suggest that it could not have been found by a skilled searcher exercising reasonable diligence. *General Plastic*, Paper 19 at 20 (“The relevant issue under factor 2 is . . . whether [the prior art references] could have been found with reasonable diligence . . . [A] petitioner is free to explain why a reasonably diligent search could not have uncovered the newly applied prior art.”) (citation omitted).

C. Factor 3: Whether at the Time of Filing of the Second Petition the Petitioner Already Received the Patent Owner's Preliminary Response to the First Petition or Received the Board's Decision on Whether to Institute Review in the First Petition

Factor 3 weighs in favor of denying the Petition because Petitioner received the Preliminary Response and Board's Institution Decision before filing this Petition.

Although the Board did not address the merits of Petitioner's obviousness challenge, this Factor still favors denial because the record shows evidence of roadmapping. *Code200 v. Bright Data Ltd.*, No. IPR2022-00861, Paper 18 at 5 (P.T.A.B. Aug. 23, 2022) (precedential) (“Where the first-filed petition under factor

1 was discretionarily denied or otherwise was not evaluated on the merits, factors 1-3 only weigh in favor of discretionary denial when there are 'road-mapping' concerns under factor 3 or other concerns under factor 2.”).

Roadmapping exists here because CleveMed addressed the inapplicability of the references raised in the first petition in its response to ResMed's Invalidity Contentions. *Micron Tech., Inc. v. Unification Techs. LLC*, No. IPR2021-00941, Paper 14 at 9 (P.T.A.B. Dec. 15, 2021) (Factor 3 weighs in favor of denial if the petitioner “would have been able to take [patent owner's] arguments into consideration in shaping its strategy for the present Petition.”). Petitioner, therefore, had access to CleveMed's arguments before filing this follow-on petition. *Id.*

ResMed's PGR Petition asserted obviousness arguments based on Bao in combination with Klee, Shouldice, and Dong, and other obviousness arguments based on Farrell in combination with Pirzada, Bao, Shouldice, and Dong. PGR2024-00012, Petition at 7. Following the discretionary denial of institution for the PGR, ResMed served its initial invalidity contentions in district court asserting as primary references Bao and Farrell against the '284 Patent on July 15, 2024. Ex. 2007 (Ex. A03 – Farrell) at 1-2 (asserting Farrell in combination with Pirzada, Bao, Shouldice, Dong); Ex. 2008 (Ex. A04 – Bao) at 1-2 (asserting Bao in combination with Klee, Shouldice, Dong, Truitt). CleveMed responded to these claims on an element-by-element basis on August 5, 2024. Ex. 2009 (Ex. A03 – Farrell) at 1-2 (responding

to claims asserting Farrell); Ex. 2010 (Ex. A04 – Bao) at 1-2 (responding to claims asserting Bao).

Thus, although ResMed's first petition challenging the '284 Patent was not denied on the merits, ResMed was able to access CleveMed's arguments regarding those references and chose to abandon its original grounds in favor of at least facially new prior art. Petitioner provides no explanation for abandoning its original grounds in favor of developing entirely new grounds. Accordingly, Factor 3 weighs in favor of denying institution.

D. Factor 4: The Length of Time That Elapsed Between the Time the Petitioner Learned of the Prior Art Asserted in the Second Petition and the Filing of the Second Petition

ResMed has not stated when it learned of the Kumar reference asserted in the IPR Petition, but ResMed had ample time to identify art long before filing its IPR Petition. As discussed above, ResMed has been involved in litigation against a parent of the '284 Patent since 2022, and ResMed initiated the present litigation against the '284 Patent in March of 2023, more than a year before filing the current Petition. Moreover, Kumar was publicly available since 2002, years before any litigation between the parties. This factor weighs against institution.

E. Factor 5: Whether the Petitioner Provides Adequate Explanation for the Time Elapsed Between the Filings of Multiple Petitions Directed to the Same Claims of the Same Patent

ResMed delayed filing this Petition until the very end of the statutory and has not accounted for the time elapsed since its earlier petition, which weighs against institution.

F. Factor 6: The Finite Resources of the Board

The resources spent by the Board on ResMed's petition may duplicate various district court efforts. While the district court case is currently stayed, ResMed has made no stipulation not to assert the same art in district court and currently is asserting Truitt, Dong, and Wright against the '284 Patent. In view of the significant resources already expended by Patent Owner, Petitioner, and the respective courts hearing these disputes, and, in particular, the same grounds in the trial involving the '284 Patent, the Board's resources would duplicate this work. Accordingly, this factor weighs against institution.

G. Factor 7: The Requirement Under 35 U.S.C. § 316(a)(11) to Issue a final Determination Not Later Than 1 Year After the Date on Which the Director Notices Institution of Review

Because there is no reason to speculate that this case presents any issues that jeopardize the Board's ability to issue a final determination within one year, this factor is neutral.

* * *

In view of the above, factors 1–6 weigh against instituting trial while factor 7 is neutral. With the weight of the factors tipping against institution, the *General Plastic* factors demonstrate that fairness to the Patent Owner is best served by declining to institute trial.

IV. THE BOARD SHOULD DENY THE PETITION UNDER 35 U.S.C. § 314(A)

The Board should deny institution under § 314(a) because 1) this Petition is redundant of district court litigation that ***Petitioner*** filed against the '284 Patent in 2023, and 2) Petitioner delayed filing this Petition despite relying on long-known references and arguments it has repeated in multiple forums, which amounts to an abuse of the patent system. See 35 U.S.C. § 314(a) (institution of an IPR is discretionary).

Petitioner filed a Complaint seeking declaratory judgment of non-infringement of the '284 Patent on March 20, 2023, then responded to Patent Owner's counterclaims of infringement with voluminous invalidity contentions that cited the same Truitt, Dong, and Wright references used in this Petition. *ResMed Corp. v. Cleveland Med. Devices, Inc.*, No. 1:23-cv-02221-BMB (N.D. Ohio) (the "Ohio Case"); see also generally Ex. 2011 (7/15/2024 Invalidity Contentions) at 11 (citing Truitt and Dong), 38 (citing Patent Owner's statements regarding Wright made during patent prosecution). Not only did Petitioner wait to submit this Petition for more than 3 months after receiving Patent Owner's validity contentions, but

Petitioner had already known about these references—particularly Truitt—for much longer. *See infra*, Factor 3. As a result of Petitioner's delay, the parties expended significant resources in the Ohio Case. *Id.*

The purpose of the *Fintiv* analysis is to “take[] a holistic view of whether efficiency and the integrity of the system are best served by denying or instituting review.” *Apple Inc. v. Fintiv, Inc.*, No. IPR2020-00019, Paper 11 at 6 (P.T.A.B. Mar. 20, 2020) (“*Fintiv*”) (precedential) (discussing purpose of discretionary denial analysis). Here, a holistic view of Petitioner's actions reveals dilatory tactics and overlapping arguments across multiple forums, which have been staggered so as to maximize the amount of investment required of Patent Owner. Patent Owner is a small company, in contrast to Petitioner, which is the U.S. arm of a large, publicly-traded parent company. Such tactics weigh in favor of discretionary denial under *Fintiv* Factors 3 through 6, as described in detail below.

A. *Fintiv* Factors 1 and 2 Are Outweighed by Other Considerations

Factors 3 through 6 so strongly support denial in this case that they outweigh the impact of Factors 1 and 2 relating to whether a stay is likely and when a trial is likely. *See Fintiv*, Paper 11 at 5-16 (setting forth six factors for discretionary denial). Although the Ohio Case has been stayed pending the outcome of the IPR petitions and no trial date is set, these considerations represent only two “non-dispositive factors,” while the Board must weigh all factors “as part of a balanced assessment

of all relevant circumstances of the case, including the merits.” *Id.* at 5 (internal quotations and citation omitted). Upon such an assessment, discretionary denial is appropriate.

B. *Fintiv* Factor 3 Supports Denial Because Petitioner Unreasonably Delayed its Filing and the Parties Have Substantially Invested in Parallel Litigation

Fintiv Factor 3 relates to both the timing of the Petition and the degree of investment by the parties and district court in any parallel proceeding. *Fintiv*, Paper 11 at 9-12. Here, Petitioner inexcusably delayed filing its Petition while pushing the Ohio Case forward. Patent Owner respectfully requests the Board consider the full context of the dispute between the parties as described below, which has resulted in repetitious validity challenges across multiple venues. For these reasons, Factor 3 weighs in favor of discretionary denial.

1. The Parties Have Invested Years in Litigation Proceedings

Some history of the proceedings between the parties provides context to the Factor 3 analysis, as the parties have invested much more time and resources into their patent dispute than in the Ohio Case and beyond. Patent Owner, Petitioner, and Petitioner's parent company, ResMed Inc., have been embroiled in litigation since June 16, 2022, when Patent Owner first asserted patent infringement against Petitioner's parent in the United States District Court for the District of Delaware. *Cleveland Med. Devices, Inc. v. ResMed, Inc.*, No. 22-cv-00794-JLH (D. Del.) (the

“Delaware Case”). The Delaware Case is still pending and involves U.S. Patent No. 10,076,269, an earlier-filed family member to the '284 Patent.²

Petitioner assisted its parent in obtaining a stay in that case by filing an IPR petition against the '269 Patent. *See ResMed Corp. v. Cleveland Med. Devices, Inc.*, No. IPR2023-00565, Paper 1, Pet. at 1 (P.T.A.B. Mar. 22, 2023) (identifying parent company ResMed Inc. as a real-party-in-interest). Notwithstanding an initial discretionary denial due to the advanced stage of the Delaware Case (*id.*, Paper 13 (P.T.A.B. Sept. 25, 2023)), the Director granted review and vacated the institution decision, and the Board ultimately instituted trial in view of Petitioner's post-vacatur *Sotera* stipulation. *Id.*, Paper 15 (P.T.A.B. Nov. 16, 2023), Paper 23 (P.T.A.B. May 6, 2024).

Around the same time that it filed the IPR petition against the '269 Patent, Petitioner multiplied the proceedings among the parties by filing a declaratory judgment action against the '284 Patent, an unsuccessful post-grant review petition against the '284 Patent, the instant Petition against the '284 Patent, and various other petitions for *inter partes* review and requests for reexamination against other patents in Patent Owner's portfolio. Thus, Petitioner has been pursuing validity challenges

² The '284 Patent is a continuation of U.S. Patent No. 11,275,921, which itself is a continuation of U.S. Patent No. 10,076,269.

against Patent Owner's patents for years, and the parties and multiple tribunals have committed significant resources to litigating these disputes. Given this multitude of proceedings, the majority of which were initiated by Petitioner, the full history of such proceedings should be considered as part of the *Fintiv* analysis.

2. Petitioner Was Aware of the References Asserted in This Petition for Months Before Filing Yet Continued to Pursue the Ohio Case.

Petitioner has now filed IPRs against all of the patents and claims asserted as counterclaims in the case that Petitioner initiated nearly two years ago. It did not submit this Petition until November 15, 2024, the last business day of the period within which it could petition for IPR against the '284 Patent.³ See 35 U.S.C. § 315(b) (permitting IPR petitions only within 1 year of an allegation of infringement).

Petitioner, therefore, pursued the Ohio Case for the maximum possible amount of time before filing this Petition, despite that this Petition against the '284 Patent uses references Petitioner had already known about for as much as a year at the time of filing. The Board has acknowledged that “notwithstanding that a [challenger] has one year to file a petition, it may impose unfair costs to a patent

³ Petitioner's cut-off date for filing this Petition was November 17, 2024, which fell on a Sunday.

owner if the petitioner . . . waits until the district court trial has progressed significantly before filing a petition at the Office.” *Fintiv*, Paper 11 at 11. In particular, delays in filing the Petition weigh in favor of denial where the petitioner is “aware or could have reasonably been aware of the prior art asserted in the challenges set forth in the instant proceeding.” *Next Caller Inc. v. TRUSTID, Inc.*, No. IPR2019-00961, Paper 10 at 15-16 (P.T.A.B. Oct. 16, 2019) (delay in filing petition weighed in favor of discretionary denial as petitioner could have filed the petition concurrently with another petition asserting the same art). In this instance, Petitioner’s last-minute Petition relies almost exclusively on art long known to Petitioner, which weighs in favor of denial.

Petitioner was well aware of the primary reference—*Truitt*—for as long as one year before filing this Petition. In the Delaware Case, Petitioner’s parent company, *ResMed Inc.*, asserted *Truitt* in its invalidity contentions, served November 10, 2023, over one year before this Petition. *See, e.g.*, Ex. 2012 (11/10/2023 Delaware Case Invalidity Contentions) at 63. At a minimum, Petitioner knew of *Truitt* no later than March 18, 2024, eight months before this Petition, when it cited the reference against the ’284 Patent in its Response and Affirmative Defenses to Patent Owner’s Counterclaims in the Ohio Case. *See, e.g.*, Ex. 2013, *ResMed Corp. v. Cleveland Med. Devices, Inc.*, No. 1:23-cv-02221-BMB, Dkt. No. 66 at ¶¶ 149, 154 (N.D. Ohio, Mar. 18, 2024).

At that time, Petitioner pled *all* allegations from all 5 rounds of invalidity contentions served in the Delaware Case—totaling hundreds, if not thousands, of pages of charts and contentions—as purported bases for invalidity in the Ohio Case. *Id.* at ¶ 149. Those contentions also included Wright, which is a secondary reference in two grounds in the Petition, meaning that Petitioner was either aware of Wright since its assertion in the Delaware Case or at least was aware of it by the time it reiterated those allegations in the Ohio Case in March 2024. *See, e.g.,* Ex. 2014 (11/20/2023 Delaware Case Invalidity Contentions) at 45.

Petitioner was also aware of several other secondary references and had the benefit of Patent Owner's validity contentions from the Ohio Case for months before filing its Petition. Petitioner cited Dong (as well as Truitt and Wright) in its July 15, 2024, invalidity contentions in the Ohio Case, 4 months prior to this Petition. Ex. 2011 (7/15/2024 Ohio Case Invalidity Contentions) at 11, 38. Mumford was cited in the prosecution history for the '284 Patent, and thus should have been known to Petitioner upon its investigation of the patent. Ex. 1002 (9/13/2022 Notice of References Cited) at 112. Thus, Petitioner knew or at least should have been aware of the positions it has now taken, months later, in this Petition. *See, e.g., Next Caller*, Paper 10 at 15-16.

That Petitioner added the Kumar reference for the first time in its Petition is of no moment; the combinations used need not be identical between parallel

proceedings if there is nonetheless “substantial overlap.” *Apple Inc. v. Optis Cellular Tech. LLC*, No. IPR2020-00465, Paper 13 at 20-21 (P.T.A.B. Sept. 17, 2020) (factor 4 favored discretionary denial as “substantial overlap of issues concerning the prior art” existed, because even though “the combinations of four references” Petitioner used in the district court and in the petition differed, “two of the references, including the primary reference [], are the same in both combinations”).

Where, as here, the evidence shows that the petitioner failed to promptly file its petition “at or around the same time that the patent owner responds to the petitioner’s invalidity contentions, or [] if the petitioner cannot explain the delay in filing its petition,” Factor 3 favors exercising discretionary denial. *Fintiv*, Paper 11 at 11-12. In this case, both issues are present: Petitioner not only waited over 3 months from Patent Owner’s validity contentions to file this Petition, but waited many months before deciding to pursue the same validity challenges to the ’284 Patent before the Board. Petitioner has not offered any excuse for its delay; nor can it, given that it largely just repurposed the allegations already made against the ’284 Patent’s family member. See Pet. at 65 (making no meaningful attempt to address *Fintiv*).

3. Petitioner Continued to Litigate the Ohio Case While It Ran Out the Clock for Filing IPRs.

Though Petitioner was already aware of the bases for its IPR petition, it forged ahead in the Ohio Case with substantial discovery and service of voluminous invalidity contentions, thus imposing unfair cost on Patent Owner. *See Fintiv*, Paper 11 at 11.

Discovery was in full swing before Petitioner filed this Petition. For example, Petitioner served 14 interrogatories and 52 requests for production on Patent Owner in the Ohio Case. Ex. 2015, *ResMed Corp. v. Cleveland Med. Devices, Inc.*, No. 1:23-cv-02221-BMB, Dkt. No. 87-1 (Declaration of James Hannah in Support of Cleveland Medical Devices, Inc.'s Opposition to Motion to Stay Pending Mediation) at ¶¶ 2-3 (explaining discovery status as of August 2024 in responding to Petitioner's first request to stay the Ohio Case pending a mediation); *id.*, Ex. 2016, Dkt. No. 100-1 (Declaration of Lisa Kobialka in Support of Cleveland Medical Devices, Inc.'s Opposition to Motion to Stay) at ¶ 4 (updating discovery status in responding to Petitioner's second request for a stay, this time pending IPRs). Patent Owner produced over 6,100 pages of documents in response. Petitioner itself produced over 6,500 pages of documents in response to Patent Owner's requests. Ex. 2015 at ¶ 3, Ex. 2016 at ¶ 4. Moreover, before Petitioner filed its submission here, the parties completed claim construction briefing that cumulatively included over 90 pages of

discussion, dozens of pages of detailed declarations from three different experts, and the parties' joint submission of a prehearing statement.

As the Board has noted, the weight to accord a lack of a claim construction order in a parallel district court litigation may vary depending on an individual court's procedures. *Fintiv*, Paper 11 at 10, n.17. Here, although Petitioner obtained a stay just before the District Court's claim construction hearing, the parties had already completed substantial work in the case under the Court's procedures permitting discovery ahead of claim construction.

Petitioner also imposed substantial costs on Patent Owner with its invalidity contentions in the Ohio Case, which comprised 41 claim charts and more than 3,000 pages. Patent Owner was obligated to respond to these vague and bloated allegations with its own validity contentions, which it served in August 2024. Then, on January 9, 2025, the day before it sought to stay the district court litigation in favor of its IPR petitions, Petitioner served supplemental invalidity contentions with 768 pages of charts addressing five patents, plus a 30-page, single-spaced list of purported obviousness combinations.

The overall investment of the parties into district court litigation is especially significant when also considering the Delaware Case, in which the parties produced cumulatively hundreds of thousands of pages of documents, and Petitioner's parent served 5 rounds of invalidity contentions.

In sum, the Board should find that these timing considerations and a holistic view of the parties' years of investment in parallel proceedings favor discretionary denial.

C. *Fintiv* Factor 4 Supports Denial Because Petitioner Presents Arguments that Significantly Overlap with Arguments Presented to the District Court

Significant overlap exists between this Petition and the Ohio Case because “the same or substantially the same claims, grounds, arguments, and evidence” presented in the Ohio Case are reiterated here, which favors denying the Petition. *Fintiv*, Paper 11 at 12. Petitioner has conceded that its Petition involves both overlapping arguments and art. See Ex. 2017, *ResMed Corp. v. Cleveland Med. Devices, Inc.*, No. 1:23-cv-02221-BMB, Dkt. No. 101 at 9. Moreover, Petitioner has asserted grounds against all claims of the '284 Patent that are asserted in the Ohio Case, a fact that supports denial. See *Fintiv*, Paper 11 at 13 (discussing the import of whether all or only some challenged claims are at issue in a parallel proceeding).

Further, each of Petitioner's six grounds alleged in the Petition relies on Truitt as a primary reference, and Truitt was asserted in the Ohio Case. Pet. at 2-3; Ex. 2011 (7/15/2024 Invalidity Contentions) at 11. Two grounds in the Petition require Dong as a secondary reference, and Dong was asserted in the Ohio Case. Pet. at 2-3; Ex. 2011 (7/15/2024 Invalidity Contentions) at 11. Moreover, Petitioner purports to rely on statements that Patent Owner made about Wright during prosecution as

part of its invalidity arguments in the district court, but now it asserts Wright as a prior art reference here. Ex. 2011 (7/15/2024 Invalidity Contentions) at 38; *see also* Section V (discussing how Petitioner's reliance on Wright despite that the Patent Office already considered it supports denying institution). Thus, substantial overlap exists between the Ohio Case and this proceeding.

Petitioner has made no case-narrowing stipulations (*e.g.*, a *Sotera*-type stipulation) that might mitigate the overlap in issues. While the District Court's stay may somewhat mitigate such concerns, nothing prevents Petitioner from arguing it should be permitted to use the art asserted here in some different manner. Indeed, when Patent Owner raised this concern in its Opposition to Petitioner's Motion to Stay the Ohio Case and suggested Petitioner should stipulate to a broader estoppel effect from the IPRs in light of its thousands of pages of invalidity allegations, Petitioner did not offer even a limited stipulation in its reply. *See* Ex. 2017, *ResMed Corp. v. Cleveland Med. Devices, Inc.*, No. 1:23-cv-02221-BMB, Dkt. No. 101 at 10. The lack of stipulation means that when the Ohio Case resumes there will still be a risk of duplicative efforts and conflicting results.

D. *Fintiv* Factor 5 Supports Denial Because Petitioner Initiated the Co-Pending Litigation

Petitioner is the counterclaim-defendant in the pending Ohio Case. This factor thus weighs in favor of denying the Petition.

The Board should accord extra weight to this factor because Petitioner is not only the same party in the litigation; rather, Petitioner is the plaintiff that ***initiated*** the litigation with a declaratory judgment action of non-infringement against the '284 Patent.

Following Patent Owner's counterclaim of infringement in that case, Petitioner alleged invalidity and served two rounds of voluminous invalidity contentions. Petitioner effectively chose the district court as its venue for validity challenges by actively litigating validity in that forum for the maximum amount of time possible in lieu of filing this Petition—even though Petitioner already knew of most of the references that now form the basis for the Petition. Ultimately, Petitioner waited to file on the last business day that it could, and thus should be held to the choice of forum that it functionally made through its actions, which is litigating the validity of the '284 Patent before the District Court. Thus, this factor should weigh in favor of denying the Petition.

E. *Fintiv* Factor 6 Supports Denial Because Petitioner's Recycled Arguments Lack Merit and Create Intentional Inefficiencies

As described throughout Patent Owner's Preliminary Response, the grounds raised in the Petition lack merit, and certainly do not rise to the level of appearing “particularly strong” for purposes of impacting the *Fintiv* analysis. *Fintiv*, Paper 11 at 14-15. Indeed, these grounds fall well short of even raising “a closer call,” but a close call is all that is required for this Factor to favor discretionary denial. *Id.* at 15.

Highlighting the weaknesses in Petitioner's arguments, Petitioner relies on references that were considered during prosecution, and its few added references are cumulative of other art already considered. *See infra* Section V (discussing the independent rationale for discretionary denial applicable here under 35 U.S.C. § 325(d)). This weak substance cannot save the Petition from discretionary denial.

Further, equitable considerations weigh in favor of denying institution. As discussed above in connection with Factors 3 and 4, Petitioner has submitted and resubmitted the same voluminous contentions across multiple forums. Petitioner picked this fight with Patent Owner by filing a declaratory judgment action on the '284 Patent within days of the '284 Patent's issuance, which Patent Owner unsuccessfully sought to dismiss. Ex. 2018 (2023-06-05 CleveMed's Mot. to Dismiss Complaint or Transfer) at 1-2, 5-8.

When Patent Owner was unable to dismiss Petitioner's declaratory judgment action, it was required to assert any counterclaims of infringement. *See* Fed. R. Civ. P. 13(a) (counterclaims arising out of the same subject matter are compulsory). Patent Owner also assessed at that time what other patents in the same family as the '284 Patent would be relevant, to avoid creating further parallel proceedings. This included the '284 Patent's parent and certain additional patents that had recently issued or issued during the pendency of the case. Perhaps to avoid having to litigate Patent Owner's counterclaims along with its own, Petitioner created the potential for

inefficiencies between the District Court and the Board by filing this Petition (and multiple others) using overlapping art. Petitioner then sought a remedy for its own actions with a request for a stay, ***derailing its litigation*** in favor of trying its arguments here. Petitioner's wave of petitions against the patents asserted in the Ohio Case are unlikely to resolve the litigation, and the court where the parties have been litigating these issues should continue to be the venue for the parties' disputes. This Petition should be rebuffed as harassing and a misuse of the system.

V. THE BOARD SHOULD DENY THE PETITION UNDER 35 U.S.C. § 325(d)

The Board should deny the Petition under 35 U.S.C. § 325(d) because the combination of Truitt and Kumar shares the deficiencies of Farrell and Geva, which were overcome during prosecution of the related '775 Patent. Ex. 2002 ('775 Patent, Non-Final Rejection) at 3-9; Ex. 2003 ('775 Patent, Notice of Allowance) at 6-8.

The Board "may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office." 35 U.S.C. § 325(d). As the Board explained in *Advanced Bionics, LLC v. Med-El Elektromedizinische Gerate GmbH* ("Advanced Bionics"):

[U]nder § 325(d), the Board uses the following two-part framework: (1) whether the same or substantially similar art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of first part of the framework is satisfied, whether the

petitioner has demonstrated that the Office erred in a manner material to the patentability of the challenged claims.[] If a condition in the first part of the framework is satisfied and the petitioner fails to make a showing of material error, the Director generally will exercise discretion not to institute *inter partes* review.

No. IPR2019-01469, Paper 6 at 8-9 (P.T.A.B. Feb. 13, 2020) (precedential). “At bottom, this framework reflects a commitment to defer to previous Office evaluations of the evidence of record unless material error is shown.” *Id.* at 9.

A. *Advanced Bionics* Step 1 (*Becton, Dickinson* Factors (a), (b), and (d)): The same or substantial the same prior art or argument was previously presented to the USPTO

The first prong of the *Advanced Bionics* framework is satisfied because Petitioner's arguments regarding *Truitt, Kumar, and Mumford* were traversed during prosecution of the application that led to the '284 Patent and its child patent, U.S. 12,213,775 (“'775 Patent”). The Board should deny this Petition because the Office has already determined that the combination of a conventional PAP device in conjunction with a monitoring system disclosing a cell phone does not render obvious multiple elements of the claimed invention.

Although the Examiner allowed the '284 Patent in part because Pirzada is not prior art, the Examiner raised and then rejected a nearly identical theory during prosecution of a child patent ('775 Patent), citing Farrell in combination with a new reference, Geva (2004/0073098). Ex. 2002 at 3-4; *Advanced Bionics*, Paper 6 at 9-

11 (consideration of the same or substantially the same prior art or arguments presented to the PTO during any proceeding should be considered). As with the '284 Patent, Farrell was found to disclose all the limitations except the "first software adapted to be downloaded to a cell phone and executable by a first processor on the cell phone . . ." Ex. 2002 at 8 (emphasis omitted). The examiner stated that it would have been obvious to modify Farrell's hand-held display and control devices to be a cellular phone taught by Geva. *Id.* at 9.

CleveMed overcame this combination by explaining that Farrell does not disclose an airflow sensor "adapted for measuring or deriving the respiratory airflow of a subject while using the PAP and outputting airflow sensor data" or a second processor within the PAP device used for calculating symptom severity data or an index of treatment efficacy. Ex. 2001 ('775 Patent, Response to Non-Final Rejection) at 12-14. Farrell requires other sensors external to the PAP enclosure in order to measure breathing, and its device is used with other diagnostic devices. *Id.* Truitt shares Farrell's deficiency on this issue because it also does not measure, derive, or output respiratory airflow sensor data. Truitt at 3:66-4:1 (the "present invention contemplates that the signal from the [flow assembly] sensor can be used in the same manner as the signal from a conventional flow sensor" used in conventional PAP devices). Truitt also contemplates that its flow assembly can be used as an external attachment and that other sensors should be used to provide the

processor with additional information. *Id.* at 6:60-62, 7:65-8:13. Thus, the Petition uses Truitt to represent a conventional PAP device, the same as the Examiner considered Farrell.

CleveMed also distinguished the combination of Farrell and Geva on the basis that Geva's *cellular phone* that performs the signal analysis to identify features in the received signals from an electrode mounded in the patient's CPAP mask. Ex. 2001 ('775 Patent, Response to Non-Final Rejection) at 15-16 (citing Geva [0294-0296], FIGs 30-31). Geva describes a separate system for monitoring signals that is separate from the CPAP enclosure. Ex. 2001 at 16-17. This is similar to how Petitioner uses Kumar for its arguments directed to the cell phone but ignores that its computing device contains a data interpretation and analysis module that performs virtually identical signal analysis to its received signals such that Truitt's processor would not be modified to perform full calculations. *See* § VII.A.1-2, *infra*. Further, both Farrell and Geva describe receiving signals from electrode sensors, not airflow sensors. This is similar to how Petitioner frames Truitt's modification with Mumford's sleep efficacy algorithm but ignores that the sleep efficacy algorithm relies upon inputs from electrodes found in the mask worn by the patient. *See* § VII.B, *infra*.

Upon consideration of CleveMed's response, the Examiner issued an allowance stating that neither Farrell, Geva, or the other art of record rendered

obvious the “first software adapted to be downloaded to a cell phone and executable by a first processor on the cell phone to display to a subject . . . ,” “an airflow sensor . . . internal to the enclosure of the PAP device adapted for measuring or deriving the respiratory airflow of the subject . . . ,” or “a second processor . . . adapted for receiving the airflow sensor data and for calculating . . .” Ex. 2003 (’775 Patent, Notice of Allowance) at 6-8.

Accordingly, the Office already considered and rejected an argument that a POSITA would have modified a conventional CPAP machine (as taught by Farrell and Truitt) with a cellular communications device with a processor that processes signals (as taught by Geva and Kumar) such that the processing occurs on a processor of the CPAP machine instead. As the Office rightly recognized during prosecution, this argument is a solution in search of a problem and ultimately the product of hindsight. Thus, the first prong of the *Advanced Bionics* framework is satisfied. *Gator Bio, Inc. v. Sartorius Bioanalytical Instruments, Inc.*, No. IPR2023-00215, Paper 19 at 17-19, 22 (P.T.A.B. June 20, 2023) (denying institution where the challenges set forth in the Petition are based on the same or substantially the same prior art or arguments previously presented to the Office during patent examination for each of the asserted grounds).

B. *Advanced Bionics* Step 2 (*Becton, Dickinson* Factors (c), (e), and (f)): Petitioner has made no showing of material Examiner error

The second prong of *Advanced Bionics* is satisfied because Petitioner does not show that the Examiner erred in a manner material to patentability. Pet. at 70; see also *Gator Bio*, Paper 19 at 7-8, 17-22. It is the Petitioner's burden to affirmatively demonstrate that the Office committed material error in issuing the challenged patent. See, e.g., *Dir., Office of Workers' Comp. Programs, Dep't of Labor v. Greenwich Collieries*, 512 U.S. 267, 276 (1994) (consistent with the Administrative Procedure Act (APA), the proponent of a claim has the burden of persuasion); *Fanduel, Inc. v. Interactive Games LLC*, 966 F.3d 1334, 1341 (Fed. Cir. 2020) ("the burden of proving invalidity in an IPR remains on the petitioner throughout the proceeding") (citations omitted).

Petitioner alleges no error by the Office, let alone material error. Pet. at 70. The Board should, therefore, defer to the Examiner's evaluation of the same evidence asserted here and exercise its discretion to deny institution. *Advanced Bionics*, Paper 6 at 8-9 (indicating that the Board should exercise discretion to deny institution if the petitioner fails to make a showing of material error because "this framework reflects a commitment to defer to previous Office evaluations of the evidence of record").

The Board consistently exercises its discretion to deny institution in circumstances where a petitioner does not address whether the Office materially

erred. *See Wolfspeed, Inc. v. The Trustees of Purdue Univ.*, No. IPR2022-00761, Paper 9 at 14-15 (P.T.A.B. Nov. 8, 2022) (exercising its discretion under Section 325(d) to not institute IPR because the proffered art was cumulative to or substantially the same as art previously presented to the Office and petitioner did not address whether the Office materially erred); *see also Darfon Elecs. Corp. v. Shipman*, No. IPR2022-01008, Paper 11 at 14 (P.T.A.B. Dec. 2, 2022) (same). In *Wolfspeed*, for example, the petitioner asserted the same prior art as presented in a previous IPR petition. *Wolfspeed*, Paper 9 at 12-14.

While the petitioner addressed Section 325(d), the Board nonetheless denied institution because petitioner did not identify any material error in the prior decision. *Id.* at 15 (exercising its discretion under petitioner “stop[ped] short of identifying any error, much less a material error, in the prior decision”). Likewise, Petitioner acknowledges that the Dong, Wright and Mumford references were presented to and considered by the Office and use Truitt and Kumar is the same or substantially similar manner as Farrell and Pirzada/Geva while failing to identifying any error. *See Pet.* at 15-16.

Because the Petition presents only the same or substantially the same prior art and arguments previously presented during prosecution, and because Petitioner has failed to make any showing of error by the USPTO, the Board should exercise its discretion and deny institution under 35 U.S.C. § 325(d). *See Advanced Bionics*,

Paper 6 at 7-9 (describing a two-part framework that demonstrates “a commitment to defer to previous Office evaluations of the evidence of record unless material error is shown”).

VI. LEVEL OF ORDINARY SKILL IN THE ART

For the purpose of this preliminary proceeding only, Patent Owner (“CleveMed”) applies Petitioner’s definition of a person of ordinary skill in the art (“POSITA”) or skilled artisan, as one who “would have had at least a bachelor’s degree in mechanical engineering, electrical engineering, computer science, biomedical engineering, or a similar technical field, with at least two years of relevant product design experience working with diagnostic sensor systems and network data systems, such as networked PAP machines. Additional experience could substitute for less education, and additional education could likewise substitute for less experience.” Pet. at 16.

VII. THE CHALLENGED CLAIMS ARE PATENTABLE

Patent Owner further respectfully requests that the Board deny *inter partes* review because Petitioner has not shown a reasonable likelihood that any Challenged Claim is obvious.

A. Grounds 1-3: The Challenged Claims are Patentable Over Truitt and Kumar

1. Truitt and Kumar Do Not Disclose a PAP Device With a Processor that Receives Airflow Sensor Data and Calculates Data of the Severity of the Patient's Symptoms

Independent Claim 1 is patentable at least because Truitt does not disclose a PAP device with a processor that receives airflow sensor data and data indicative of the severity of the patient's symptoms, and Petitioner does not suggest that Kumar cures Truitt's deficiencies. Pet. at 27-31, 37.

Truitt does not disclose or suggest equipping a PAP device with a processor that receives airflow data and calculates data indicating the severity of the patient's symptoms. Rather, Truitt discloses the type of PAP device "that adjust[s] . . . continuous positive gas pressure through sensors built into the device for creating the positive gas pressure, which measure gas flow through the device" distinguished in the '284 Patent. '284 Patent at 2:29-33. The '284 Patent distinguishes such "basic adjustable devices," which "have been found to be expensive and largely ineffective." *Id.* at 2:33-34.

Thus, rather than calculating severity data, Truitt's conventional PAP device merely receives flow and/or pressure signals and adjusts the flow or pressure "in a feedback fashion":

Controller 38 receives the signals output from sensors 20 and 22 and controls the operation of valve 40, pressure generator 12, or a

combination thereof in a feedback fashion based on these received signals. For example, in a simple CPAP device, controller 38 monitors the pressure or flow of breathing gas delivered to the patient and adjusts the pressure or flow in a feedback fashion to meet the desired prescription pressure level.

Truitt at 2:57-64. Using this feedback technique, conventional PAP devices could measure the airflow being provided **to the patient** and (1) provide bi-level pressure support, “where the pressure is greater during inspiration than during expiration,” or (2) auto-titrate pressure to counteract or prevent “snoring, apneas, hypopneas, etc.” *Id.* at 2:64-3:11. This measurement of airflow **to the patient** is not a measurement of the patient’s respiratory airflow, and Truitt does not teach or suggest **deriving** the patient’s respiratory airflow from this data.

Although this material is disclosed in the Background section of Truitt’s disclosure, Truitt’s invention does not aim to provide any further functionality, including calculating **severity** data based on respiratory airflow data. Instead, Truitt’s invention merely aims to provide the same functionality as conventional PAP devices while omitting the flow sensor. *Id.* at 3:26-36 (distinguishing earlier attempts to “avoid the use of a flow sensor altogether”); *id.* at 3:42-46 (“In particular, it is an object of the present invention to provide a pressure support system that allows for a relatively accurate flow or volume measurement of the gas passing therethrough, without the need for a dedicated flow element.”).

Thus, the balance of the specification also fails to teach or suggest a processor that calculates “data of severity of sleep disorder symptoms of the subject.” *See id.* at 5:35-6:10 (describing pressure and motor control), 6:38-53 (describing the controller for calculating the flow and/or volume of gas passing through the conduit for control of the motor), 6:60-62 (describing that “other sensors” are needed “to provide additional information to the controller”), 7:65-8:13 (describing that controller 38 can be used in an external flow sensing attachment and standalone embodiments that removed from the internals of the PAP device). Accordingly, Truitt discloses a conventional adjustable PAP device, which is able to adjust pressure or flow in response to pressure or flow signals, but it does not disclose a processor that receives airflow data and calculates data indicating the severity of the subject’s sleep disorder symptoms.

Petitioner’s suggestion that Truitt discloses this limitation “because it discloses monitoring the patient’s condition, and specifically detecting snoring, apneas, and hypopneas,” relies on an unsupported and overly-broad interpretation of the term “data of a severity of the symptoms of the subject.” Pet. at 27-28; 37 C.F.R. § 42.104(b)(4). Data of the severity of the subject’s symptoms are quantitative determinations or estimations of the patient’s condition based on data from one or more sensors fed into one or more algorithms. ’284 Patent at 19:56-20:18; PGR2024-00012, Paper 7 at 16 (Ex. 1002 at 273) (“Based on the above disclosures

in the specification, we agree with Patent Owner that the specification discloses that the gathered information is processed to monitor the condition of the subject (i.e., the system quantitatively estimates or determines the ‘severity of sleep disorder symptoms’) and how much pressure / flow of gas is to be provided to the subject (i.e., the system calculates the ‘usage of the PAP device by the subject’).”). Accordingly, while detected snoring, apnea, and hypopnea events may represent detected *symptoms*, they are not “data of a *severity* of the symptoms of the subject,” as claimed.

The Board should also reject Petitioner’s reasoning on this point because it wrongly assumes that all ways of monitoring a patient’s condition involve “calculating ‘data of severity of sleep disorder symptoms.’” Pet. at 27. However, while calculating severity data is one way to monitor a patient’s condition, the opposite is not true: there are boundless ways to monitor a patient’s condition (taking the patient’s temperature, pulse, blood pressure, etc.) that are entirely unrelated to calculating the severity of a patient’s symptoms. Accordingly, there is no basis for Petitioner’s conclusion that Truitt teaches calculating severity data merely because it discloses monitoring the patient’s condition. *Id.*

The rest of Petitioner’s argument breaks down from there. Whether or not the ’284 Patent equates conditions and symptoms (*id.* at 30), there remains no basis for equating symptoms and severity data. Indeed, conflating those two terms would

have the effect of rendering the term “severity” superfluous, which would be “highly disfavored.” *Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc.*, 853 F.3d 1272, 1288 n.10 (Fed. Cir. 2017) (“It is highly disfavored to construe terms in a way that renders them void, meaningless, or superfluous.”) (citing *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950-51 (Fed. Cir. 2006) (“[C]laims are interpreted with an eye toward giving effect to all terms in the claim.”) (citations omitted)).

Truitt also fails to disclose calculating an “index [of treatment efficacy] based in part on data of severity of sleep disorder symptoms” at least because its processor does not calculate severity data. Petitioner’s argument that “Truitt’s PAP system operates in [sic] materially the same way as the ’284 patent” ignores this fact and improperly analogizes Truitt’s detection of individual snores, apneas and hypopneas with the ’284 Patent’s severity data. Pet. at 29.

For at least the foregoing reasons, Truitt does not disclose a “processor adapted for receiving the airflow sensor data, for calculating the data of a severity of the symptoms of the subject and/or the index.” Patent Owner respectfully requests, therefore, that the Board deny institution of *inter partes* review.

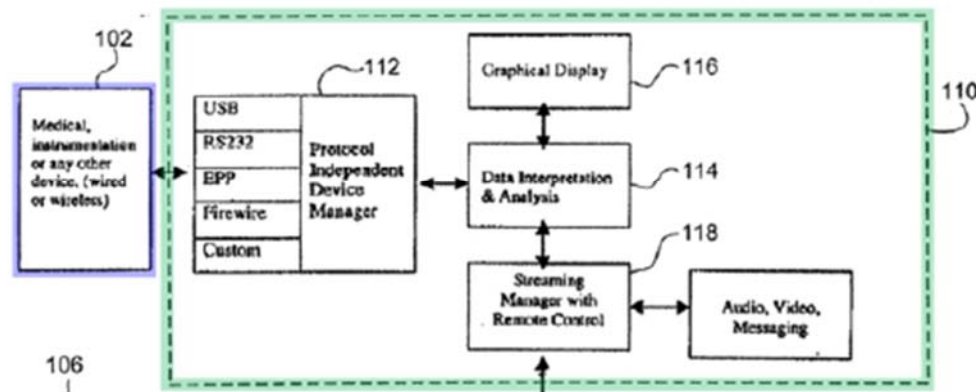
2. Truitt in View of Kumar Does Not Disclose Transmitting Severity Data From the PAP to a Cell Phone

Truitt does not disclose or suggest transmitting data anywhere outside of its device. *Id.* at 37-40. However, even if a POSITA were to find motivation to combine Truitt with Kumar, the combination would not reach the claimed invention

because if severity data were to be calculated anywhere in the combined system of Truitt and Kumar, it would be done at Kumar's computing device 110, not Truitt's PAP device. The Examiner reached the same conclusion when considering the substantially similar combination of Farrell and Geva during prosecution of the related '775 Patent. *See* Section V.A, *supra*.

As a preliminary matter, Patent Owner does not concede that Kumar discloses calculating severity data or that it would have been obvious to calculate severity data missing from Truitt at Kumar's computing device. As established above, neither Truitt nor Kumar discloses calculating severity data. Nevertheless, when considering the combined teachings of Truitt and Kumar, a POSITA would not have found motivation to calculate this severity data at Truitt's PAP device. *See In re Schweickert*, 676 F. App'x 988, 995 (Fed. Cir. 2017) (remanding the Board's obviousness determination because the proposed modification was "unnecessary" because the prior art system "already" performed the function and the additional feature "would do little more than add unwanted cost and complexity to the system").

In the combination envisioned in the Petition, Truitt's controller would calculate the severity and/or index data and send it to Kumar's computing device 110, which Petitioner alleges is the claimed "cell phone" in Claim 1. Pet. at 31-35.



Id. at 32 (Petitioner’s annotated FIG. 1A from Kumar showing computing device 110 containing Data Interpretation & Analysis module 114). This computing device 110 contains “data interpretation and analysis module 114 [that] is used to interpret the data stream from the client-side device, perform mathematical analysis on the data using FFT, DFT, etc., and generate statistics.” Kumar at ¶ [0075].

Kumar discloses receiving raw data streams from a number of different sensors and uses its own interpretation and analysis module 114 to process the sensor data. *Id.* at ¶ [0071] (describing the different patient-side devices Kumar is intended to receive data from); *id.* at ¶ [0179] (“Data collected by the unit is processed by the system to provide real-time medical monitoring, summary reports, statistical calculations, and visual displays, which can further be tailored for the healthcare provider’s particular needs, and can each be tailored for a particular protocol.”). A POSITA would recognize that Kumar intended to receive a stream of data that includes “raw, interpreted, and processed physiological data” from the patient’s device. *Id.* at ¶¶ [0010, 0081, 0179, 0192], Claim 6 (“The system as recited in claim

5, wherein the computing device processes the data prior to receipt of the data by the engine.”).

Accordingly, since Truitt does not disclose measuring or deriving a patient's airflow or calculating severity or index data, a POSITA reading Kumar and Truitt would not be motivated to add that functionality to Truitt's PAP when Kumar's computing device already provided the necessary computational resources. Patent Owner, therefore, respectfully requests that the Board deny institution.

3. Truitt in View of Kumar Does Not Disclose a PAP Transmitting Severity Data to a Cell Phone and Remote Internet Site

The Challenged Claims are also patentable because Kumar does not disclose transmitting data to a cell phone **and** to a remote internet site via the PAP's wireless transceiver, as claimed.

According to Petitioner, the remote internet site is allegedly hosted at Kumar's central server 106, which is accessible to patient-side device 102 over WAN 108 (i.e., the Internet). Pet. at 41-46. As shown in FIG. 1A, the connection between the patient-side device 102 and central server 106 always traverses computing device 110 (which is alleged to be the claimed “cell phone”), so there is no disclosure in Kumar of separately sending the severity and/or index data to a cell phone and a remote internet site, as claimed.

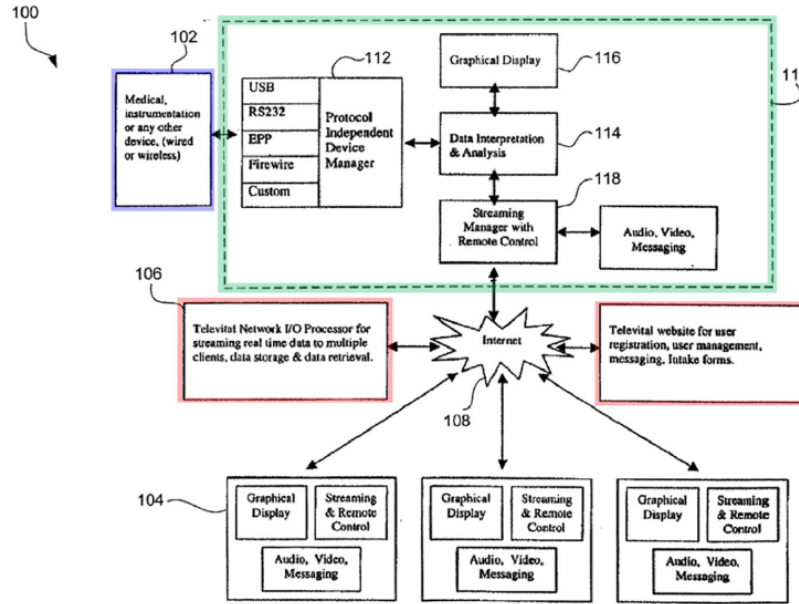


Fig. 1A

EX1008, FIG. 1A

Id. at 42. Accordingly, Petitioner does not identify where Kumar teaches “a remote internet site, the remote internet site adapted to receive the data of the severity of the symptoms of the subject and/or the index, and the data of usage of the PAP device by the subject both related to the subject’s treatment and the treatment's efficacy, in whole or part, ***generated by the PAP device and transmitted via the at least one second radio frequency wireless transceiver.***” ‘284 Patent at Claim 1.

4. Truitt Does Not Disclose “an airflow sensor internal to the PAP device adapted for measuring or deriving the respiratory airflow of a subject while using the PAP and outputting airflow sensor data”

Petitioner fails to identify any teaching in the proposed Truitt combinations where the internal airflow sensor is adapted for measuring or deriving the respiratory airflow of a subject. Pet. at 36-37.

It is the petitioner's burden to explain with particularity why the challenged claims are unpatentable. See *Nichia Corp. v. Document Sec. Sys., Inc.*, No. 2020-2261, 2022 WL 1218036, at *4 (Fed. Cir. Apr. 26, 2022) (“The patent challenger must provide an understandable explanation of the element-by-element specifics of its unpatentability contentions, identifying supporting disclosures from the asserted prior art.” (citing 35 U.S.C. § 312(a)(3)); see also *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016). Thus, a petition must specify where each element of the claim is found in the relied-on prior art. 37 C.F.R. § 42.104(b); see also 37 C.F.R. § 42.22(a)(2) (a petition must include “a detailed explanation of the significance of the evidence including material facts, and the governing laws, rules, and precedent.”).

Patent Owner agrees with Petitioner that Truitt discloses measuring the air flow “provided to the patient,” but Petitioner fails to explain how measuring the airflow provided to the patient is either a measurement or derivation of the *patient's* respiratory airflow. Pet. at 36-37. Indeed, although Truitt's system can detect

certain symptoms, like snores, apneas, and hypopneas, it does not claim to measure the patient's respiratory airflow *or* to derive the patient's respiratory airflow from the measurements that its system does take. Truitt at 2:57-60, 6:39-48. Petitioner's experts offer nothing more than conclusory statements that parrot the conclusory mapping made in the Petition and should, therefore, be accorded little to no weight. *Compare* Pet. at 37 with Ex. 1003, Kirkness Decl., ¶ 212 and Ex. 1005, Chatterjee Decl., ¶ 103.

For at least the foregoing reasons, Patent Owner respectfully submits that Truitt does not disclose “an airflow sensor internal to the PAP device adapted for measuring or deriving the respiratory airflow of a subject while using the PAP.” Patent Owner respectfully requests, therefore, that the Board deny institution of *inter partes* review.

B. Grounds 4-6: The Challenged Claims are Patentable Over Truitt in view of Kumar and in further view of Mumford

A POSITA would not be motivated to modify Truitt's PAP device with Mumford's sleep efficacy algorithm absent of hindsight because Mumford's sleep efficacy algorithm relies upon sensor inputs not present in Truitt, and Mumford's algorithm detection of apneas provides the same functionality already present in Truitt. Pet. at 64-65.

1. Mumford's Sleep Efficacy Algorithm Relies On Electrodes Not Present In Truitt

Mumford's sleep efficacy algorithm is "based on at least the electrode signals" received from the sensors and electrodes integrated into its mask assembly. See § II.E, *supra*. That the sleep efficacy algorithm uses "a frontal staging algorithm, based on at least the electrode signals, to determine which stage of sleep the wearer [] is in," indicates that the primary inputs used in the algorithm come from the electrode signals located in the mask. Mumford at 15:39-16:3. On the other hand, Truitt discloses a CPAP with an internal flow sensing assembly that sends signals to its controller used in determining the flow or volume of gas in the system. See § VII.A.1, *supra*. There is no disclosure in Mumford indicating that its sleep efficacy algorithm would or could be compatible with Truitt's flow sensing assembly.

Petitioner's argument that Mumford furthers the objective and purpose of Truitt, ignores that in order to implement the sleep efficacy algorithm, one of ordinary skill would have to include a combination of electrodes integrated into the mask. Mumford makes clear that "[t]he information provided by the electrodes is important since it is well known that some sleep apnea events occur more frequently in some of the sleep stages rather than others." Mumford at 15:42-45. It goes on to disclose three physiological signals, EEG, EOG, and EMG are used to score sleep stages and that arousals due to upper airway resistance (i.e. apneas) may be detected

from a shift in the frequency EEG and/or EOG signal as well as a decrease in blood oxygenation levels. *Id.* at 1:56-2:12.

Not only would the inclusion of the electrodes and sensors at the mask defeat the purpose of Truitt in providing a new flow sensing assembly for a CPAP, but it also defeats Truitt's goal to provide an "accurate flow or volume measurement of the gas passing therethrough, without the need for a dedicated flow element." Truitt at 3:42-46; *Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (finding nonobviousness where proposed combination "destroy[s] the basic objective" of the primary reference); *see also Chemours Co. FC, LLC v. Daikin Indus., Ltd.*, 4 F.4th 1370, 1376 (Fed. Cir. 2021) (reversing the Board's obviousness determination because the Board failed to explain why a POSITA would have "alter[ed] the inventive concept").

Thus, a POSITA would not look to Mumford's algorithm when attempting to interpret Truitt's internal flow or volume reading sent from its flow sensing assembly found within the PAP device. Further, neither Petitioner or their experts demonstrate how Mumford's algorithms would need to be modified in order to be successfully operational with Truitt's PAP device. Pet. at 64-65; *see also Sprint Specturm L.P. v. Intellectual Ventures II LLC*, No. IPR2018-01765, Paper 11 at 25 (P.T.A.B. May 6, 2019) (denying institution because the petitioner failed to demonstrate how a reference's algorithms would be modified to serve the purpose of the proposed

combination) (citing *Pers. Web Techs., LLC v. Apple, Inc.*, 848 F.3d 987, 994 (Fed. Cir. 2017)).

2. A POSITA Would Not Be Motivated To Use Mumford's Sleep Efficacy Algorithm In Truitt

Truitt relies upon its flow sensing assembly signals to determine apneas and control the operation of the CPAP. Truitt at 2:57-3:11, 3:66-4:1, 5:35-59, 6:49-53, FIG 3. Truitt discloses that detection of snoring, apneas, and/or hypopneas may be detected by pressure and flow sensors, or other sensors that are needed to provide additional information to the controller. *Id.* at 3:4-9, 6:60-62. Thus, Truitt discloses that is flow sensing assembly signals can be used to control the operation of the CPAP and may detect apneas and/or hypopneas.

The physiological information processed by Mumford's sleep efficacy algorithm determines two things: (1) the present sleep stage of the wearer and (2) how many arousals they experienced. Mumford at 7:34-42. The sleep efficacy algorithm also generates a control signal to control the CPAP or alter the pressure provided. *Id.* at 7:46-51. Mumford discloses that to determine the wearer's sleep stage, signals from the EEG (brain activity), EOG (eye movement), EMG (muscle tone) sensors are used together in the assessment. *Id.* at 1:56-2:3, 11:17-21. Arousals due to upper air way resistance are detected by Mumford would be detected from the shift in the patient's EEG and/or EOG accompanied with a decrease in blood oxygen levels. *Id.* at 2:4-6. For each embodiment in Mumford, the pressure

transducer is never used alone to determine either the wearer's sleep stage or arousals. *Id.* at 4:24-35 (pressure transducer in combination with a pulse oximeter or position sensor), 12:62-13:22 (pressure transducer is optionally used in combination with the electrodes and other sensors), Claims 10, 13 (pressure transducer used in combination with electrodes and other sensors).

Mumford instructs a POSITA to use more than one data channel from other than a pressure sensor because the “information is weak” and the “signals are more difficult to detect because they do not originate in the frontal lobes of the brain.” *Id.* at 10:66-11:16. Thus, a POSITA considering Mumford's sleep efficacy algorithm must use it in conjunction with the electrodes integrated in Mumford's mask assembly. Indeed, Petitioner's expert suggests just that when opining that a “POSITA would have understood that use of sensors, ***in addition to Truitt's use of air flow/pressure sensor(s)***, would have improved the accuracy of the sleep disorder detection and provided improved treatments” and the “integrated sensor design would have increased mobility and lessened discomfort.” Ex. 1003, Kirkness Decl., ¶ 336 (emphasis added). However, the Petition alleges that only Mumford's sleep efficacy algorithm would be incorporated into Truitt, not the entire mask assembly with its integrated sensors and its algorithm. Pet. at 64-70.

Furthermore, a POSITA would not be motivated to use Mumford's algorithm without modification when considering using it with a device that only has a

flow/pressure sensor within the device and not the mask. Mumford's pressure transducer is found integrated within the mask worn by the patient, not within the CPAP device. Mumford at 11:66-12:17. Truitt discloses that the flow and pressure sensors can be used to detect apneas which provides substantially the same functionality disclosed for Mumford's algorithm when its only input is from the pressure sensor. *Id.* at 12:42-47. Thus, a POSITA would not be motivated to use Mumford's sleep efficacy algorithm in Truitt because the sleep efficacy algorithm would not provide any capability not already found within Truitt. Truitt can detect apneas and control the operation of the device the same as Mumford when the additional electrode inputs are removed. Thus, the Petition fails to show motivation for combining Mumford with Truitt.

VIII. CONCLUSION

For all of these reasons, Patent Owner accordingly requests that the Board deny institution of *inter partes* review of the Challenged Claims of the '284 Patent.

Patent Owner's Preliminary Response
IPR2025-00157 (U.S. Patent No. 11,602,284)

Respectfully submitted,

Dated: March 13, 2025

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(Case No. IPR2025-00157)

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CERTIFICATE OF COMPLIANCE WITH 37 C.F.R. § 42.24

The undersigned hereby certifies that the portions of the above-captioned **PATENT OWNER'S PRELIMINARY RESPONSE** specified in 37 C.F.R. § 42.24 has 12,129 words in compliance with the 14,000 word limit set forth in 37 C.F.R. § 42.24(b)(1). This word count was prepared using the Microsoft Word word-processing system used to prepare this paper.

Dated: March 13, 2025

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(Case No. IPR2025-00157)

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CERTIFICATE OF SERVICE

The undersigned certifies, in accordance with 37 C.F.R. § 42.6(e), that service was made on the Petitioner as detailed below.

<i>Date of service</i>	March 13, 2025
<i>Manner of service</i>	Electronic Mail (PH-ResMed-CleveMed@paulhastings.com)
<i>Documents served</i>	PATENT OWNER'S PRELIMINARY RESPONSE
<i>Persons Served</i>	Paul Hastings LLP Lisa K. Nguyen David M. Tennant Grace Wang

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