UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DEXCOM, INC.,
Petitioner,

v.

ABBOTT DIABETES CARE INC.,
Patent Owner.

IPR2024-00520
U.S. Patent No.: 11,266,335

PETITIONER'S AUTHORIZED REPLY TO PATENT OWNER'S PRELIMINARY RESPONSE

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EXHIBIT LIST

LIST OF NEWLY FILED EXHIBITS

Exhibits concurrently filed with Petitioner's Reply to Patent Owner's Preliminary Response:

No.	Description
1269	April 15, 2024 Information re European Patent Office Oral Proceedings Resulted in EP 3 766 408 being Revoked
1270	May 8, 2024 Decision with Reasons EP 3 766 408 was Revoked on April 15, 2024 by European Patent Office Opposition Division

LIST OF PREVIOUSLY FILED EXHIBITS[1]

Petitioner previously filed the following exhibits:

No.	Description
1001	U.S. Patent No. 11,266,335 ("**'335 patent**")
1002	File History of U.S. Patent No. 11,266,335 ("**'335 FH**")
1003	*Intentionally left blank*
1004	U.S. Provisional Application No. 61/411,262, filed Nov. 8, 2010
1005	U.S. Patent Application No. 13/071,461, filed Mar. 24, 2011
1006	U.S. Provisional Application No. 61/317,243, filed Mar. 24, 2010

[1] Exhibits falling in the range 1001-1066 were also previously filed in IPR2023-01396, which challenged other claims of the '335 patent. Exhibits filed in the present IPR, but not IPR2023-01396, begin at exhibit number 1267.

No.	Description
1007	U.S. Provisional Application No. 61/345,562, filed May 17, 2010
1008	U.S. Provisional Application No. 61/361,374, filed July 2, 2010
1009	U.S. Publication No. 2008/0097246 ("**Stafford**")
1010	U.S. Publication No. 2009/0124979 ("**Raymond**")
1011	U.S. Publication No. 2007/0135774 ("**Turner**")
1012	U.S. Patent No. 6,175,752 ("**Say**")
1013	*Intentionally left blank*
1014	U.S. Publication No. 2007/0073129 ("**Shah**")
1015	U.S. Publication No. 2006/0095014 ("**Ethelfeld**")
1016	*Intentionally left blank*
1017	PCT Publication No. WO 2008/155377 ("**Hasted**")
1018	U.S. Publication No. 2004/0002682 ("**Kovelman**")
1019-29	*Intentionally left blank*
1030	U.S. Publication No. 2007/0093754 ("**Mogensen**")
1031-36	*Intentionally left blank*
1037	U.S. Publication No. 2009/0099521 ("**Gravesen**")
1038	*Intentionally left blank*
1039	U.S. Publication No. 2008/0319414 ("**Yodfat**")
1040	U.S. Patent No. 7,207,974 ("**Safabash**")
1041	U.S. Publication No. 2004/0204687 ("**Mogensen 687**")
1042	U.S. Publication No. 2002/0022855 ("**Bobroff**")
1043	U.S. Patent No. 9,566,384 ("**Gyrn**")
1044	U.S. Patent No. 8,747,363 ("**Nielsen**")
1045-55	*Intentionally left blank*

No.	Description
1056	U.S. Publication No. 2009/0216215 ("**Thalmann**")
1057	U.S. Publication No. 2005/0131346 ("**Douglas**")
1058	*Intentionally left blank*
1059	U.S. Publication No. 2008/0146904 ("**Hunn**")
1060	V. Poitout, et al., *A glucose monitoring system for on line estimation in man of blood glucose concentration using a miniaturized glucose sensor implanted in the subcutaneous tissue and a wearable control unit*, Diabetologia, Vol. 36, Issue 7, 1993
1061	Steven W. Smith, *The Scientist and Engineer's Guide to Digital Signal Processing*, 2nd ed., 1999 (excerpted)
1062	B. A. Shenoi, *Introduction to Digital Signal Processing and Filter Design*, 2006 (excerpted)
1063	Marc D. Breton, et al., *Optimum Subcutaneous Glucose Sampling and Fourier Analysis of Continuous Glucose Monitors*, Journal of Diabetes Science and Technology, Vol. 2, Issue 3, May 3, 2008
1064	Antonios E. Panteleon, et al., *The Role of the Independent Variable to Glucose Sensor Calibration*, Diabetes Technology & Therapeutics, Vol. 5, Nov. 3, 2003
1065	Statement of Defense (Counterclaim), *Dexcom Inc. v. Abbott Diabetes Care Inc.*, Case No. 21 O 6562/23 (Munich D. Ct. I), Sept. 1, 2023
1066	Scheduling Order, *Abbott Diabetes Care Inc. v. DexCom Inc.*, No. 1-23-cv-00239 (D. Del. Mar. 3, 2023)
1267	"ABBOTT'S INITIAL CLAIM CHARTS" served Dec. 20, 2023 in *Abbott Diabetes Care Inc. v. DexCom Inc.*, No. 1-23-cv-00239 (D. Del.)
1268	Third Declaration of Gary D. Fletcher, Ph.D., dated January 31, 2024 ("Third Fletcher Decl.")

Pursuant to the Board email of May 23, 2024, Petitioner files this reply to the POPR (Paper 8). The POPR distills to a single issue: whether the combination presented renders obvious "a plurality of recesses disposed on a periphery." The POPR arguments fail for at least two reasons. First, they misstate the proposed combination and the evidence of there being only two design choices. Second, the POPR uses incorrect implied claim constructions to dismiss Turner.

I. THE STAFFORD+RAYMOND+TURNER COMBINATION

The Petition's combination involves adding a plurality of recesses to the sides of a Stafford-like on-body unit (OBU), where they engage with the gripping arms taught by Raymond, thereby avoiding rotation as taught by Turner. The POPR appears to wrongly suggest that the Stafford+Raymond+Turner combination requires bodily incorporation of Turner's recesses onto an upper surface of an OBU. POPR, 53-59. Instead, however, the combination relies on a simple addition to the Stafford housing of two recesses (a) to avoid rotation, as taught by Turner, and (b) to engage the two base-retaining arms in the location where Raymond teaches that those arms engage the OBU, on its outer circumference. Paper 3 (Pet.), 24-34, 36-43.

Starting from the blank slate of Stafford's OBU housing—which lacks any feature for engaging Raymond's two base-retaining arms—the obvious choice to both secure a Stafford-like housing to a Raymond-like inserter and provide the anti-

rotation benefit taught by Turner is two spaced-apart recesses on the sidewall of the housing, each to engage with each arm taught by Raymond. Pet., 19-43, 48-49.

This combination in no way requires positioning Turner's specific recesses on an upper surface of Stafford's OBU; such an implementation would lack a corresponding engagement feature in the inserter taught by Raymond. *See id.*, 33-34. Rather, in the combination, the multiple recesses taught by Turner are positioned on a periphery of Stafford's housing to mate with Raymond's base-retaining arms/feet. *Id.*; EX1268, ¶62 ("[A] POSITA would have simply ensured that the on-body electronics unit housing included spaced-apart recesses (in line with Turner's teachings) that were engageable with the engagement bosses (similar to Raymond's base-retaining feet") …."); *see also id.*, ¶77 ("[I]t would have been an obvious design choice to implement two spaced-apart plural recesses on the housing—one to engage the protrusions on each of the two arms taught by Raymond."), ¶¶78-89, ¶¶106-107.

As the retaining arms taught by Raymond are designed to engage an OBU on a peripheral sidewall, the use of sidewall recesses avoids the need for any additional engagement mechanisms (such as the protrusions in Turner's embodiments), while providing an anti-rotation benefit not necessarily realized from a single annular recess. This obvious arrangement—placing two recesses at the two spots where the inserter arms already engage the OBU—beneficially secures the OBU in a particular orientation in the inserter. *See* Pet., 27; EX1268, ¶¶43-45, 62, 74-79, 88.

A. Turner Provides Motivation to Use Recesses to Resist Rotation

"[A]s expressly reflected by Turner, a POSITA would have been motivated to implement similar plural rotation-restricting recesses on the periphery of the housing … to prevent rotation between the housing as taught by Stafford and the inserter as taught by Raymond." Pet., 39-40; *see also* EX1268, ¶88 ("Turner's teachings further confirm that a POSITA would have been motivated … to implement Stafford+Raymond with a housing having plural recesses spaced apart from one another so as to be engageable with … corresponding engagement bosses on the tip portions of the gripping arms as taught by Raymond."), ¶79. Patent Owner (PO) agreed that "the cited Turner recesses ... prevent rotation ..." POPR, 15.

B. Implementing a Stafford-like Housing With Sidewall Recesses To Engage the Arms of a Raymond-like Inserter Was an Obvious Design Choice, With an Anti-Rotation Benefit

The POPR does not dispute that an OBU housing like that disclosed in Stafford would have required adding an engagement feature to secure it to an inserter like the one disclosed in Raymond. *See generally* POPR. To do that, *only two design choices are supported by evidence of record*: a single annular recess/ring or multiple recesses. Only the latter provides Turner's anti-rotation benefit.

PO asserted that adding multiple recesses "would add unnecessary complexity to *Raymond's* already-complex assembly." POPR, 56 (emphasis added). But Petitioner did not propose adding recesses to Raymond's assembly. Petitioner

proposes adding recesses to *Stafford's* OBU. PO failed to explain—let alone offer evidence supporting—how adding two recesses to the blank slate of Stafford's housing, to engage with the two arms of a Raymond-like inserter, adds any complexity *vis-à-vis* a single annular recess, the only other option of record.

An obvious design choice need not be an "improvement" or reduce complexity. Rather, it need only be a "suitable option." *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1380-81 (Fed. Cir. 2023). In any case, the use of two recesses *would* be an improvement, as they provide an anti-rotation benefit, as both PO and the Board recognized. *See* Paper 13 ("Dec."), 37-40 in IPR2023-01396; POPR, 31-32; *see also* Pet., 33, 39-43. Even if using two recesses would have added complexity, no record evidence suggests a POSITA would have foregone the anti-rotation benefits taught by Turner to limit unintended rotation between the OBU and the inserter. *See, e.g.*, *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007) (solutions may be obvious to try "[w]hen there is a design need … to solve a problem and there are a finite number of identified, predictable solutions …."). And, PO offered *no evidence* that a POSITA would have considered any other designs beyond the two options discussed above for engaging a Stafford-like housing with Raymond-like arms designed to engage at the side of an OBU.

II. PO'S IMPLIED CLAIM CONSTRUCTIONS ARE INCORRECT

The POPR asserts that no "claim terms require construction in order to reach

a decision to deny institution," while simultaneously construing the "recesses disposed on *a* periphery" of claim 1 to exclude Turner's recesses as not being on *the* peripheral *edge*. *Compare* POPR, 33 *with* POPR, 14, 31, 53-55 (emphasis added). Without providing express constructions, the Board agreed with PO's implied constructions in the parallel case IPR2023-01396. Dec., 48-49.

A. The EPO Opinions Are Irrelevant to Construing "A Periphery"

The POPR cites to a *preliminary* opinion from the European Patent Office (EPO) for a related patent. *See* EX2001. Before the POPR was filed, the same EPO proceedings resulted in revocation of PO's related patent (*see* EX1269; EX1270)—a fact the POPR omitted. The EPO's *final* decision does not depend on prior art grounds or whether Turner discloses or suggests "a plurality of recesses circumferentially disposed" on an OBU as required by the related patent, undercutting any relevance to the present matter. The preliminary opinion addresses different claim language reciting "a plurality of recesses circumferentially disposed thereon" (EX2001, 12), which is not in the challenged claims. No claim in the EPO proceeding recites the "plurality of recesses disposed on a periphery" limitation in the '335 patent. The EPO proceedings have little to no applicability here.

B. Nothing Limits "On A Periphery" to Being On The Edge

The '335 patent does not use the word "periphery" outside of claim 1. *See* EX1001. While the '335 patent discloses only embodiments showing recesses on the

side wall or edge, nothing expressly limits "on a periphery" in claim 1 to being on a side wall or on the peripheral edge. Claim 12 adds the requirement that the recesses are "disposed on a side wall" of the OBU. The doctrine of claim differentiation suggests claim 1 is broader and does not require recesses to be on a side wall, let alone on the peripheral edge of the OBU.

Moreover, the ordinary meaning of "periphery" is not limited to the *outermost* circumferential *edge*. *See, e.g.*, *Periphery*, MERRIAM-WEBSTER DICTIONARY (last updated May 8, 2024), www.merriam-webster.com/dictionary/periphery ("1: the perimeter … 2: the external boundary or surface of a body … 3a: the outward bounds of something as distinguished from its internal regions or center"). Nothing in this art so limits the meaning of "periphery," either. From the perspective of a POSITA, Petitioner's expert asserted that Turner's recesses are in fact "disposed on the periphery." EX1268, ¶49. PO offered an opposite attorney assertion but no evidence in response. POPR, 14. Turner itself contrasts an *outer* perimeter, *e.g.*, "outer perimeter 37 of body 20" at the bottom, with *other* perimeters or peripheries, *e.g.*, the smaller "perimeter 39 at top 12." EX1011, FIGS. 3, 11, [0071], [0104]. Turner Figure 11 illustrates two planes, P1 and P2, each described as containing a perimeter. *Id.*, FIG. 11, [0104]. Any number of additional planes could be drawn between them, each containing a different perimeter, with some including perimeters containing Turner's recesses. Thus, despite not being on the *outermost* circumferential edge,

Turner's recesses are on a perimeter and on a periphery. Claim 1 does not require recesses on an "outermost circumferential edge," and there is no basis to read in that limitation to exclude Turner.

C. A "Securing" Function Cannot Be Read Into the Claims

PO reads into the claims a requirement that the recesses "secure" the OBU to the inserter. POPR, 14-16, 20. The Board accepted that requirement in the parallel IPR proceeding. Dec., 48-49. There is no basis to read into the claims an unrecited securing function. If the EPO proceedings are relevant to any issue presented here, it would be that the EPO's final decision recognizes that "not every symmetric arrangement [of recesses] can be said to maintain proper height" of the OBU (EX1270, §5.2), *i.e.*, not all recesses within the scope of the claims secure the OBU height as described in the specification (EX1001, 44:8-14).

III. A REQUEST FOR REHEARING IN IPR2023-01396 IS RELEVANT

Petitioner notes that it filed a Request for Rehearing in IPR2023-01396, which involves the same patent at issue here. As such, whether to institute this IPR should be decided in view of that request for rehearing to avoid inconsistent decisions.

IV. CONCLUSION

Petitioner requests institution of *inter partes* review for claims 5-7.

Respectfully submitted,

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CERTIFICATE OF SERVICE
IN COMPLIANCE WITH 37 C.F.R. § 42.6 (e)(4)

The undersigned certifies that on May 31, 2024, a complete copy of the **Petitioner's Authorized Reply to Patent Owner's Preliminary Response** was served on counsel for Patent Owner via electronic mail as follows:

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