

Filed on behalf of: Meta Platforms, Inc.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC., META PLATFORMS TECHNOLOGIES,
LLC, and TWISTED PIXEL GAMES, LLC,
Petitioner,

v.

EIGHT KHZ, LLC,
Patent Owner.

Case IPR2023-01019
Patent 10,368,179 B1

**PETITIONERS' OPPOSITION TO
PATENT OWNER'S MOTION TO EXCLUDE**

TABLE OF CONTENTS

I.	Introduction.....	1
II.	The Board Should Not Exclude Any Portion of Dr. Roginska's Declarations (Exhibits 1003 and 1146).	1
A.	Dr. Roginska Properly Considered Dr. Begault's Testimony.....	3
B.	Dr. Roginska's Opinions on the Combination of Clement, Osman, and Sauk are Admissible.....	6
1.	Ex. 1003 ¶¶ 111-115, 173, 175, 183, 267, 312, 313	6
2.	Ex. 1146 ¶¶ 36-39, 41, 47	10
C.	Dr. Roginska's Opinions on the Disclosure of the '179 Patent and Lyren Are Admissible	12
III.	Conclusion	15

TABLE OF AUTHORITIES**Page(s)****CASES**

<i>Abbott Diabetes Care Inc. v. Dexcom, Inc.</i> , IPR2022-00913, Paper 44 (Nov. 2, 2023)	1
<i>Corning Inc. v. DSM IP Assets B.V.</i> , IPR2013-00053, Paper 66 (May 1, 2014).....	2
<i>Daubert v. Merrell Dow Pharms., Inc.</i> , 509 U.S. 579 (1993).....	2
<i>Marinus Pharms., Inc. v. Ovid Therapeutics, Inc.</i> , PGR2023-00020, Paper 42 (Aug. 1, 2024)	3, 9
<i>In re Mouttet</i> , 686 F.3d 1322 (Fed. Cir. 2012)	11
<i>TriVascular, Inc. v. Samuels</i> , 812 F.3d 1056 (Fed. Cir. 2016)	7

STATUTES

35 U.S.C. § 314(a)	7
35 U.S.C. § 316(e)	7

REGULATIONS

37 C.F.R. § 42.20(c).....	1
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Exhibit List

Exhibit	Description
1001	U.S. Patent No. 10,368,179 (“the ’179 patent”)
1002	File History for U.S. Patent No. 10,368,179 (“’179 FH”)
1003	Declaration of Dr. Agnieszka Roginska (“Roginska”)
1004	<i>Curriculum Vitae</i> of Dr. Agnieszka Roginska
1005	U.S. Patent No. 9,690,374 (“Clement”)
1006	U.S. Patent No. 9,037,468 (“Osman”)
1007	U.S. Patent No. 7,876,903 (“Sauk”)
1008	U.S. Patent Application Publication No. 2017/0188168 (“Lyren”)
1009	U.S. Patent Application Publication No. 2018/0373412 (“Reif”)
1010	U.S. Patent Application Publication No. 2011/0206209 (“Ojala”)
1011	U.S. Patent No. 1,624,486 (“Fletcher”)
1012	U.S. Patent No. 1,855,149 (“Jones”)
1013	U.S. Patent No. 7,330,197 (“Kobayashi”)
1014	U.S. Patent No. 7,710,654 (“Ashkenazi”)
1015	U.S. Patent No. 8,520,872 (“Jang”)
1016	U.S. Patent No. 8,520,873 (“Mahabub”)
1017	U.S. Patent No. 9,041,622 (“McCulloch”)
1018	U.S. Patent No. 9,367,811 (“Ramachandran”)
1019	U.S. Patent No. 9,544,706 (“Hirst”)
1020	U.S. Patent No. 9,578,440 (“Otto”)
1021	U.S. Patent No. 9,674,507 (“Pirchheim”)
1022	RESERVED
1023	U.S. Patent No. 9,767,618 (“Najaf-Zadeh”)
1024	RESERVED
1025	U.S. Patent No. 10,070,239 (“Romigh”)
1026	RESERVED

Exhibit	Description
1027	U.S. Patent No. 10,095,031 (“Katz”)
1028	File History for U.S. Patent Application 16/106,140
1029	U.S. Patent No. 10,509,466 (“Miller”)
1030	U.S. Patent Application Publication No. 2012/0183161 (“Agevik”)
1031	U.S. Patent Application Publication No. 2016/0124502 (“Sawyer”)
1032	U.S. Patent Application Publication No. 2016/0292924 (“Balachandreswaran”)
1033	U.S. Patent Application Publication No. 2017/0105083 (“Nair”)
1034	U.S. Patent Application Publication No. 2017/0115488 (“Ambrus”)
1035	Korean Patent Application Publication No. KR 10-2011-0022252, including English Translation and Certification (“Moon”)
1036	Christoph Anthes et al., <i>State of the Art of Virtual Reality Technology</i> , 2016 IEEE Aerospace Conf. 1-19 (Mar. 2016) (“Anthes”)
1037	<i>Average Cost of RAM per Gigabyte Chart</i> , HumanProgress (“HumanProgress”)
1038	Durand R. Begault, <i>3-D Sound for Virtual Reality and Multimedia</i> (NASA/TM-2000-209606) (Aug. 2000) (“Begault”)
1039	Tom Emrich, <i>Virtual Reality North: A Look at the Major VR Players in Canada</i> , betakit.com (July 15, 2015), betakit.com/virtual-reality-north-a-look-at-the-major-vr-players-in-canada/ (“Emrich”)
1040	Braxton Boren, <i>History of 3D Sound</i> (Am. Univ., Wash. D.C. 2018), https://dra.american.edu/islandora/object/auislandora%3A77787/datastream/PDF/view (“Boren”)

Exhibit	Description
1041	Douglas S. Brungart et al., <i>The Interaction Between Head-Tracker Latency, Source Duration, and Response Time in the Localization of Virtual Sound Sources</i> , Proc. ICAD 04- 10th Meeting Int'l Conf. Auditory Display 1-7 (July 6-9, 2004) ("Brungart 2004")
1042	Douglas S. Brungart et al, <i>The Detectability of Headtracker Latency in Virtual Audio Displays</i> , Proc. ICAD 05-11th Meeting Int'l Conf. Auditory Display 37-42 (July 6-9, 2005) ("Brungart 2005")
1043	E. Colin Cherry, <i>Some Experiments on the Recognition of Speech, with One and with Two Ears</i> , 25 J. ACOUSTICAL SOC'Y AM. 975 (1953) ("Cherry")
1044	Christof Faller, <i>Coding of Spatial Audio Compatible with Different Playback Formats</i> , AES 117th Convention 1-12 (Oct. 28-31, 2004) ("Faller")
1045	Mohammad Dashti et al., <i>Traffic Management: A Holistic Approach to Memory Placement on NUMA Systems</i> , ASPLOS 1-13 (Mar. 16-20, 2013) ("Dashti")
1046	S.S. Fisher et al., <i>Virtual Interface Environment Workstations</i> , 32 Proc. Hum. Factors Soc'y 32nd Ann. Meeting–1988 91-95 (Feb. 1988) ("Fisher")
1047	Wolfgang Fohl et al., <i>A System-On-Chip Platform for HRTF-Based Realtime Spatial Audio Rendering With an Improved Realtime Filter Interpolation</i> , 4 INT'L J. ADVANCES INTELLIGENT SYS. 309 (2011) ("Fohl")
1048	Mats Liljedahl, <i>Sound for Fantasy and Freedom in GAME SOUND TECHNOLOGY AND PLAYER INTERACTION: CONCEPTS AND DEVELOPMENTS</i> 22 (Mark Grimshaw ed., 2011) ("Grimshaw")
1049	Eric Growney & Agnieszka Roginska, <i>Effect of Spatial Audio Processing on Attention Redirection and Speech Intelligibility in Multi-Talker Communication</i> , AES 152nd Convention 1-10 (May 2022) ("Growney")
1050	Maxim Liadov, <i>A New Generation of Xtreme Fidelity Processors and Sound Cards</i> , iXBT Labs (Aug. 22, 2005) ("Liadov")

Exhibit	Description
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1052	Christoph Lameter, <i>Local and Remote Memory: Memory in a Linux/NUMA System</i> , SGI (June 20, 2006) ("Lameter 2006")
1053	Christoph Lameter, <i>NUMA (Non-Uniform Memory Access): An Overview</i> , ACMqueue 1-12 (2013) ("Lameter 2013")
1054	Matteo Marucci et al., <i>The Impact of Multisensory Integration and Perceptual Load in Virtual Reality Settings on Performance, Workload and Presence</i> , 11 NATURE SCI. REPS. 1 (2021) ("Marucci")
1055	Joel D. Miller et al., <i>Latency Measurements of a Real-Time Virtual Acoustic Environment Rendering System</i> , Proc. 2003 Int'l Conf. Auditory Display 111-114 (July 6-9, 2003)
1056	Francisco Cheng, <i>Mobile Processors 101: Why Smartphones are Smarter with an All-In-One Processor</i> , QUALCOMM ONQ BLOG (June 12, 2013) ("Cheng")
1057	Masayuki Morimoto & Yoichi Ando, <i>On the Simulation of Sound Localization</i> , (E) 1 J. ACOUSTIC SOC'Y JAPAN 167 (1980) ("Morimoto")
1058	RESERVED
1059	Stephan Paul, <i>Binaural Recording Technology: A Historical Review and Possible Future Developments</i> , 95 ACTA ACUSTICA UNITED WITH ACUSTICA 767 (2009) ("Paul")
1060	Ben Kuchera, <i>Google Cardboard Adds 'Inexpensive' Spatial Audio to its SDK</i> , POLYGON (Jan. 13 2016, 12:00pm PST) ("Kuchera")
1061	Paul Sauk & Duane Satorius, <i>Creating a Multi-Dimensional Communication Space to Improve the Effectiveness of 3-D Audio</i> , IEEE Military Comm'cns Conf. 1-7 (Oct. 29-31, 2007) ("Sauk 2007")
1062	Mel Slater & Martin Usoh, <i>Presence in Immersive Virtual Environments</i> , IEEE Virtual Reality Ann. Int'l Symp. 90-96 (Sept. 18-22, 1993) ("Slater")

Exhibit	Description
1063	Jaka Sodnik & Sašo Tomažič, <i>Spatial Auditory Human-Computer Interfaces</i> , SPRINGER BRIEFS COMPUT. SCI. (2015) (“Sodnik”)
1064	Paul James, <i>Sulon Cortex ‘Augmented Virtual Reality’ Headset, Interview with Don Henderson</i> , ROAD TO VR (Feb. 5, 2015) (“James”)
1065	Mona Lalwani, <i>Surrounded by Sound: How 3D Audio Hacks Your Brain</i> , THE VERGE (Feb. 12, 2015, 10:30am) https://www.theverge.com/2015/2/12/8021733/3d-audio-3dio-binaural-immersive-vr-sound-times-square-new-york (“Lalwani”)
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1067	JASON JERALD, <i>THE VR BOOK: PERCEPTION AND INTERACTION DESIGN FOR VIRTUAL REALITY</i> (2015) (“VR Book”)
1068	Elizabeth M. Wenzel et al., <i>Development of a Three-Dimensional Auditory Display System</i> , 20 SIGCHI BULL. 52 (Oct. 1988) (“Wenzel 1988a”)
1069	Elizabeth M. Wenzel et al., <i>A Virtual Display System for Conveying Three-Dimensional Acoustic Information</i> , Proc. Hum. Factors Soc’y 32nd Ann. Meeting 86-90 (1988) (“Wenzel 1988b”)
1070	RESERVED
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Exhibit	Description
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1078	Linley Gwennap, <i>Qualcomm Extends Hexagon DSP</i> , MICROPROCESSOR REP. 1-4 (Aug. 26, 2013) ("Gwennap")
1079	Stanley P. Lipshitz, <i>Stereo Microphone Techniques.....Are the Purists Wrong?</i> 34 J. AUDIO ENG'G SOC'Y 716 (1986) ("Lipshitz")
1080	U.S. Patent No. 9,851,786 ("Pedrotti")
1081	U.S. Patent No. 9,787,846 ("Srinivasan")
1082	U.S. Patent Application Publication No. 2015/0094142 ("Stafford")
1083	U.S. Patent Application Publication No. 2019/0043259 ("Wang")
1084	Plaintiff's Second Supplemental Infringement Contentions, Exhibit 22, <i>Eight kHz, LLC v. Meta Platforms, Inc.</i> , No. 6:22-cv-00575 (W.D. Tex. Mar. 3, 2023)
1085	Oculus Connect 5 Spatial Audio for Oculus Quest and Beyond video clips (May 12, 2023)
1086	Oculus Connect 5 Spatial Audio for Oculus Quest and Beyond video clip transcriptions (May 12, 2023)
1087	Oculus Connect 5 Keynote Day 01 video clips (May 16, 2023)
1088	Oculus Connect 5 Keynote Day 01 video clip transcriptions (May 16, 2023)

Exhibit	Description
1089	Defendants' Opening Claim Construction Brief, <i>Eight kHz, LLC v. Meta Platforms, Inc.</i> , No. 6:22-cv-00575 (W.D. Tex. Apr. 12, 2023), ECF No. 83
1090	Plaintiff's Claim Construction Reply Brief, <i>Eight kHz, LLC v. Meta Platforms, Inc.</i> , No. 6:22-cv-00575 (May 3, 2023), ECF No. 92
1091	Declaration of Durand R. Begault, Ph.D. in Support of Plaintiff's Reply Claim Construction Brief, <i>Eight kHz, LLC v. Meta Platforms, Inc.</i> , No. 6:22-cv-00575 (W.D. Tex. May 3, 2023), ECF No. 92-7
1092	Plaintiff's Second Supplemental Infringement Contentions, Exhibit 23, <i>Eight kHz, LLC v. Meta Platforms, Inc.</i> , No. 6:22-cv-00575 (W.D. Tex. Mar. 3, 2023)
1093	U.S. Patent No. 5,173,944 ("Begault '944")
1094	U.S. Patent No. 5,438,623 ("Begault '623")
1095	Deposition transcript of Durand Begault, Ph.D., <i>Eight kHz, LLC v. Meta Platforms, Inc.</i> , No. 6:22-cv-00575 (W.D. Tex. May 22, 2023) ("Begault Dep.")
1096-1140	RESERVED
1141	Defendants' Stipulation Regarding Invalidity Challenges, <i>Eight kHz, LLC v. Meta Platforms, Inc.</i> , No. 6:22-cv-00575 (W.D. Tex. Oct. 17, 2023), ECF No. 149
1142	Order Resetting Markman Hearing Via Zoom, <i>Eight kHz, LLC v. Meta Platforms, Inc.</i> , No. 6:22-cv-00575 (W.D. Tex. Sept. 11, 2023), ECF No. 142
1143	Order Granting Joint Motion to Amend Scheduling Order, <i>Eight kHz, LLC v. Meta Platforms, Inc.</i> , No. 6:22-cv-00575 (W.D. Tex. Aug. 30, 2023), ECF No. 140
1144	Email from Board to Counsel Authorizing Petitioners' Request to Reply to Patent Owner's Preliminary Response in IPR2023-01019, -01020, and -01024 (Oct. 12, 2023)
1145	Declaration of Razi Safi In Response to Patent Owner's Objections to Petitioners' Exhibits [<i>served, not filed</i>]

Exhibit	Description
1146	Supplemental Declaration of Dr. Agnieszka Roginska ("Roginska Suppl.")
1147	Deposition transcript of Durand Begault, Ph.D., <i>Meta Platforms, Inc. v. Eight kHz, LLC</i> , IPR2023-01019, -01020 (P.T.A.B. June 14, 2024) ("Begault IPR Dep.")
1148	Errata Sheet to the deposition transcript of Agnieszka Roginska, Ph.D., <i>Meta Platforms, Inc. v. Eight kHz, LLC</i> , IPR2023-01019, -01020, -01024 (P.T.A.B. Feb. 27, 2024) (Ex. 2014)
1149	Durand R. Begault et al., Invited Paper Manuscript: <i>Headphone and Head-Mounted Visual Displays for Virtual Environments</i> , 15TH INT'L CONF. AUDIO ENG'G SOC'Y (Exhibit 1 to the Begault IPR Dep. (Ex. 1147))
1150	U.S. Patent Application Publication No. 2017/0148206 A1 ("Donner")
1151	Email from Board to Counsel Authorizing Motion to Withdraw in IPR2023-01019, IPR2023-01020, and IPR2023-01023 (July 11, 2024)

I. Introduction

The Board should deny Patent Owner's ("PO") Motion to Exclude (Paper 38, "Mot.") paragraphs 30, 111-115, 175, 183, 251, 267, 312, 313, 317, 360¹ of Ex. 1003 and paragraphs 17, 18, 23, 29, 30, 36-39, 41, 47, 52, 68, 77, 81, 85, 99, 100, and 107 of Ex. 1146. PO fails to show that any of the large swaths of Dr. Roginska's testimony it seeks to exclude are inadmissible. Instead, under the guise of the Federal Rules of Evidence and 37 C.F.R. § 42.62, PO uses its motion to circumvent its sur-reply page limits, disputing the merits, not admissibility, of Dr. Roginska's opinions. PO is wrong on the merits and, in any case, its arguments do not justify exclusion. Viewed in their best light, PO's arguments go to weight, not admissibility.

II. The Board Should Not Exclude Any Portion of Dr. Roginska's Declarations (Exhibits 1003 and 1146).

PO fails to establish that it is entitled to exclusion of Dr. Roginska's testimony. *See* 37 C.F.R. § 42.20(c). "A motion to exclude is not a vehicle for addressing the weight to be given evidence—arguments regarding weight should appear only in the merits documents." PTAB Consolidated Trial Practice Guide (Nov. 2019), 79. But PO's motion is "no more than a transparent attempt to circumvent the word-limits of its merits briefing by injecting merits arguments in its evidentiary motion." *Abbott Diabetes Care Inc. v. Dexcom, Inc.*, IPR2022-00913,

¹ Patent Owner did not address paragraphs 317 and 360 anywhere in its Motion.

Paper 44 at 62 (Nov. 2, 2023) (denying motion to exclude) (cleaned up).

PO attempts to disguise its arguments as evidentiary, citing to Federal Rules of Evidence (FRE) and 37 C.F.R. § 42.65(a), but each of its arguments challenges the substance, not admissibility, of Dr. Roginska's opinions. Instead of disputing the principles and methodology used (e.g., under FRE 702(b)), PO improperly disputes her conclusions. *See Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 594-95 (1993) ("The focus [of Rule 702], of course, must be solely on principles and methodology, not on the conclusions that they generate."). PO asserts that Dr. Roginska's testimony fails to "include all related parts 'that in fairness ought to be considered at the same time'" under FRE 106, Mot. 7, but fails to identify any missing parts and ignores when allegedly absent parts are cited elsewhere. And while PO cites to FRE 401, 402, and 403 throughout, it provides no explanation why any of Dr. Roginska's testimony is irrelevant or prejudicial. It is neither.

The Board is well-equipped to resolve disagreements about the record without resorting to the extreme remedy of exclusion. *Corning Inc. v. DSM IP Assets B.V.*, IPR2013-00053, Paper 66 at 19 (May 1, 2014) ("[T]he Board, sitting as a non-jury tribunal, is well-positioned to determine and assign appropriate weight to the evidence presented."). Further, as shown in the following discussion, PO's accusations that Dr. Roginska mischaracterized or failed to consider anything in the record have no merit.

A. Dr. Roginska Properly Considered Dr. Begault's Testimony

PO moves to exclude paragraphs 17, 18, 23, 29, 30, 52, 68, 77, and 99 of Dr. Roginska's Supplemental Declaration (Ex. 1146) for alleged "[f]ailure to consider Dr. Begault's testimony." Mot. 13-15. But PO cites no basis for its suggestion that an alleged "failure to consider" an opposing expert's testimony renders testimony inadmissible and disagreeing with an opposing expert's testimony is not a proper basis to exclude evidence. *See e.g. Marinus Pharms., Inc. v. Ovid Therapeutics, Inc.*, PGR2023-00020, Paper 42 at 6 (Aug. 1, 2024) ("[T]hat the evidence tends to support Petitioner's challenge and undercut Patent Owner's substantive rebuttal falls short of what would justify exclusion under FRE 403."). In any case, Dr. Roginska thoroughly considered Dr. Begault's testimony.

PO seeks to exclude Dr. Roginska's testimony in paragraphs 17, 18, 23, 29, and 30 of her Supplemental Declaration, because she allegedly "ignores Dr. Begault's testimony." Mot. 13. But PO fails to identify any specific testimony that she ignores and provides no explanation for why this would violate FRE 106, 401, 402, or 403. *Id.* PO seeks to exclude paragraphs that highlight contradictions in Dr. Begault's testimony, undercutting his credibility. For instance, in paragraphs 17, 23, and 30, Dr. Roginska explained that Dr. Begault provided contradictory definitions for "environment" and "3D virtual environment" in his two declarations. Ex. 1146 ¶¶ 17, 23, 30. In his first declaration, Dr. Begault opined that "a PHOSITA

would recognize that the stated ‘environment’, a ‘3D virtual environment’, or a ‘virtual image in the environment’ in the subject claims *all to refer to the same type of immersive virtual world context*” Ex. 1146 ¶ 17 (quoting Ex. 2006 ¶ 13). Dr. Roginska explained that this statement, and similar ones, contradicts Dr. Begault’s later testimony that “environment” is limited to a physical environment and that “3D virtual environment” encompasses a sound-only environment. Ex. 1146 ¶¶ 17, 23, 30. PO seeks exclusion of these paragraphs to shore up its own expert testimony—an inappropriate use of an evidentiary motion.

Similarly, PO seeks to exclude paragraph 18, in which Dr. Roginska observed that Dr. Begault interpreted “leaving the environment” as encompassing “any change in the physical environment.” Ex. 1146 ¶ 18 (citing Ex. 1147 209:3-9, Ex. 2012 ¶ 25). Dr. Roginska pointed out Dr. Begault’s testimony that “moving a coffee mug constitutes leaving the environment,” and explained that this interpretation is “absurd,” and would require a warning for “every single minor change in the environment.” Ex. 1146 ¶ 18 (citing Ex. 1147 208:9-209:19); *id.* ¶ 29. PO provides no explanation for why this testimony is allegedly inadmissible. Indeed, it is not.

Next, PO moves to exclude paragraph 52 of Dr. Roginska’s Supplemental Declaration based on a clerical error. Mot. 13-14 (Ex. 1146 ¶ 52). But the full context of this sentence shows that the error does not merit exclusion: “Although Dr. Begault asserts that [*sic*—neither] Sauk alone or ‘in combination with Osman and Clement

disclose a method' ..., he does not address the disclosures and arguments from my first declaration." Ex. 1146 ¶ 52 (citing Ex. 2012 ¶¶ 100-102). To the extent PO was confused by Dr. Roginska's testimony, it could have asked her about it in deposition. But PO decided not to depose Dr. Roginska on her Supplemental Declaration, passing on its best opportunity to test her opinions. Exclusion is not warranted.

PO moves to exclude paragraph 68 of Dr. Roginska's Supplemental Declaration because she opines that Dr. Begault "does not even assert that" the examples in Tables I and II of his declaration provide written description support for the claims. Mot. 14. According to PO, this statement "ignores Dr. Begault's testimony." Mot. 14. But PO does not cite to a single passage from his deposition, and of the 16 paragraphs of his declaration PO cites, none map passages of Tables I and II as providing support for the claims. *See* Ex. 2012 ¶¶ 30, 48-62. Dr. Roginska's accurate portrayal of Dr. Begault's testimony is not grounds for exclusion.

PO also moves to exclude paragraph 77 of Dr. Roginska's Supplemental Declaration, in which she noted that Dr. Begault described an "implicit[] alert" in his declaration and opined in deposition that not every alteration of binaural sound is an alert. Ex. 1146 ¶ 77 (citing Ex. 2012 ¶ 59, Ex. 1147 86:22-87:5). PO complains that this passage "could be interpreted to suggest that Dr. Begault said in his deposition that the disclosure 'cannot be inherent.'" Mot. 14-15. But Dr. Roginska explained her meaning precisely in that immediately preceding sentence: "Dr.

Begault does not argue that such alerts are expressly disclosed, nor does he assert that they are inherently (or necessarily) disclosed.” Ex. 1146 ¶ 77. To the extent PO was confused, it could have deposed Dr. Roginska about this. It chose not to.

PO moves to exclude paragraph 99 as allegedly “mischaracteriz[ing] two references Pedrotti and Donner.” Mot. 15.² PO disputes the substance of Dr. Roginska’s testimony about these references, asserting that neither discloses determining when a user leaves an environment. Mot. 15. PO is wrong, but, in any event, its disagreement with Dr. Roginska does not render her opinion inadmissible.

B. Dr. Roginska’s Opinions on the Combination of Clement, Osman, and Sauk are Admissible

1. Ex. 1003 ¶¶ 111-115, 173, 175, 183, 267, 312, 313

PO moves to exclude substantial portions of Dr. Roginska’s declarations as “improper” for opining on the combination of Clement, Osman, and Sauk. Mot. 2-5, 7-11. As support, PO cites the Institution Decision and suggests the Board should exclude evidence contrary to that decision. Mot. 2-4. But the Institution Decision was “not a final determination,” and the Board invited the parties to further develop the record at trial. ID 40; *see also id.* 17, 22. Excluding evidence as “improper” because it is inconsistent with an Institution Decision would undercut the purpose of

² PO incorrectly asserts Pedrotti (Ex. 1080) was not cited in the Petition. Pet. 22, 29, 43, 50.

America Invents Act trials entirely. *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (“[T]he Board is not bound by any findings made in its Institution Decision” and “[t]o conclude otherwise would collapse ... two very different analyses into one,” inconsistent with 35 U.S.C. § 314(a) and § 316(e)).

Far from inadmissible or improper, in the paragraphs PO seeks to exclude, Dr. Roginska relied on the prior art and the knowledge of a POSA to explain the combination of Clement, Osman, and Sauk. Specifically, Dr. Roginska explained that POSAs would have combined Clement and Osman with Sauk “to provide additional teachings regarding binaural sound, including signaling the importance of things or events to provide flexibility and additional options ... that enhance the system’s ability to alert or warn the user when the user” leaves an environment. Mot. 3 (quoting Ex. 1003 ¶ 111). She explained, “Sauk teaches that the audio format (or ‘dimension’) of a sound (i.e., binaural, stereo, or mono) may be used to signify the importance of that sound.” *Id.* ¶ 112; *see* Mot. 3. Further, she explained that “because users are able to perceive changes in audio dimension” incorporating Sauk’s change in audio dimension into Clement’s existing warning (fading of VR audio as the user leaves the environment) “would enhance the user’s ability ... to perceive the warning.” *Id.*

Dr. Roginska also addressed Sauk’s distinct (binaural) Hazard Warning, explaining that POSAs would have been “further motivated to provide ... audible

warnings, as described in Sauk, for the safety of the user and to prevent injury to the user.” Mot. 3 (Ex. 1003 ¶ 113). She explained that a POSA would have expected to succeed in the combination based on the references’ teachings and the knowledge of a POSA. *Id.* ¶ 114. Finally, Dr. Roginska explained that Sauk is directed “to the same field of endeavor” as Clement and Osman, and cited to Sauk’s explanation that it is directed to the field of “audio processing” and “customizing multiple audio environments to give the user a preferred illusion of sound (or sounds) located in a three dimensional space surrounding the listener.” *Id.* ¶ 115; *see also id.* ¶ 175 (distinguishing between different warnings and citing to Sauk’s disclosure of degrading binaural audio to “signif[y] a different level of relevancy”), ¶ 183 (POSAs would have removed ITDs to “more effectively communicate warnings to the user”), ¶ 267 (POSAs would have known “other alerts may be more effective ... to address the relevancy or immediacy of the transition, and others less so”); ¶¶ 312-313.

PO asserts that these paragraphs should be excluded as “unsupported” or not based on “sufficient facts or data” Mot. 4. PO is wrong. In each of those paragraphs, Dr. Roginska cites and describes the teachings of the prior art, explaining how a POSA would have understood and applied those teachings. And PO’s disagreement with the substance of Dr. Roginska’s opinion does not render her opinions inadmissible. Mot. 4. PO should not be allowed to use an evidentiary motion as a substitute for the cross-examination it chose not to pursue, or to supplement its

briefs. Further, while PO asserts that Dr. Roginska's testimony "should be excluded under FRE 401, 402, and 403," Mot. 4, it provides no basis for that assertion. Dr. Roginska's testimony is neither irrelevant nor improperly prejudicial. *See, e.g., Marinus Pharms.*, PGR2023-00020, Paper 42 at 6 ("[T]he risks of unfair prejudice are minimal because the Board sits as a non-jury tribunal with administrative expertise, and as such it is well-positioned to determine and assign appropriate weight to evidence.").

PO argues Dr. Roginska's testimony should be excluded because she "mischaracterizes" Sauk's disclosure by "implying that audio from an environment that the user is leaving is 'less relevant.'" Mot. 4-5. PO's argument goes to the merits, not admissibility. In any case, Dr. Roginska does not mischaracterize Sauk's disclosure. As she explained, Sauk teaches that "rather than keeping the less relevant audio in the same audio dimension ... a user could change" that audio to monophonic or stereophonic. Ex. 1003 ¶¶ 83, 173. Dr. Roginska explained that as a user is leaving an environment, Clement "teaches degrading the sound by reducing its volume," *id.* ¶¶ 170, 172, and that environment's sound necessarily becomes less relevant, Ex. 1146 ¶ 102. PO complains that Dr. Roginska did not cite to Sauk's teaching of "adding audible warnings as 3-D binaural sounds to warn the user of hazards." Mot. 5. But Dr. Roginska cited elsewhere to the very portion of Sauk PO complains is missing. *See* Ex.1003 ¶113. Contrary to PO's suggestion, Sauk's

disclosure of adding audible warnings is entirely consistent with Dr. Roginska's testimony. POSAs would have added Sauk's audible warnings to the physical environment, not to the VR environment that becomes less relevant as the user leaves. *Id.*; Ex. 1007 (Sauk) 12:14-51; Ex. 1005 (Clement) 8:10-17. Thus, Dr. Roginska's testimony includes the "related parts" PO asserts are missing and is based on more than "sufficient facts or data." Mot. 5. It should not be excluded.

2. Ex. 1146 ¶¶ 36-39, 41, 47

PO seeks to exclude various portions of Dr. Roginska's Supplemental Declaration, disputing her positions on the merits and, for the most part, dropping the guise of evidentiary objections entirely. PO complains, first, that Dr. Roginska opined that POSAs "would have combined Sauk with Clement and Osman such that the sound from the environment, which is becoming less important or relevant, would switch to mono or stereo from binaural." Ex. 1146 ¶ 39. PO argues that "Clement and Osman ... do not disclose anything about less important or less relevant sound" and that Dr. Roginska thus "mischaracterizes" their disclosure. Mot. 7. Nonsense. As Dr. Roginska explained, POSAs would have understood that audio from a VR environment a user was leaving becomes less relevant as the user leaves. Ex. 1146 ¶¶ 38-39, 45, 102. Clement suggests as much—it fades VR audio as the user leaves. *Id.* To the extent PO disagrees, it could have cross-examined Dr. Roginska, but it passed on that opportunity. There is no basis for exclusion.

PO seeks to exclude paragraphs 36-39, 41, and 47 of Dr. Roginska's Supplemental Declaration as allegedly "misconstru[ing]" the prior art because Sauk's Selective Relevance Mode "does not alert the user to anything." Mot. 7-10 (citing Ex. 1146 ¶¶ 36-39, 41, 47). PO is wrong. As Dr. Roginska explained, Sauk teaches that switching from binaural audio to mono/stereo would "signify a different level of relevancy or importance for such audio" to users. Ex. 1003 ¶¶ 173, 175, 178. Sauk's users can assign predetermined groups a particular audio dimension such that audio is "perceived differently by a user," thus alerting the user to a particular sound's significance. Ex. 1146 ¶ 36 (quoting Sauk 11:66-12:1).³ And, as Dr. Roginska explained, POSAs would have applied Sauk's teachings to degrade audio from Clement/Osman's VR environment as the user leaves that environment. Ex. 1146 ¶¶ 36-41. "POSA[s] would not rigidly apply Sauk to Clement such that a user would have to select the dimensionality of the audio." *Id.* ¶ 47. Dr. Roginska properly combined the *teachings* of Sauk regarding the use of audio format changes to signal relevance to users with Clement and Osman. *See e.g., In re Mouttet*, 686 F.3d 1322, 1332-33 (Fed. Cir. 2012) ("[T]he test for obviousness is what the combined teachings of the references would have suggested to [POSAs]."). Dr. Roginska also explained that Sauk's Hazard Alert and relevance signal are not

³ PO asserts this "mischaracterize[es]" Sauk, but Dr. Roginska quotes from Sauk.

mutually exclusive. To the contrary, POSAs would have understood that they work together to provide “additional layers of warning” to ensure user safety. Mot. 11 (quoting Ex. 1146 ¶ 51). Transitioning less relevant audio to stereo/mono while providing Sauk’s binaural Hazard Alert would “encourage a user to focus on the remaining binaural warning indicating an immediate hazard.” Ex. 1146 ¶¶ 38-39. PO has failed to identify what “related parts” are missing from her testimony or how it is not based on “sufficient facts or data.” Mot. 7. While PO might disagree with it, there is simply no basis to exclude Dr. Roginska’s testimony.

C. Dr. Roginska’s Opinions on the Disclosure of the ’179 Patent and Lyren Are Admissible

PO moves to exclude paragraphs 30 and 251 from Exhibit 1003 and paragraphs 81, 82, 85, 100, and 107 of Exhibit 1146, arguing that, in those paragraphs, Dr. Roginska “mischaracteriz[ed]” Lyren and the ’179 patent. Mot. 5-6, 11-13. Dr. Roginska did no such thing.

First, PO complains that the Board should exclude Dr. Roginska’s testimony that “none of [the examples in the specification] is the claimed ‘warning the user that the user is leaving the 3D virtual environment.’” Mot. 5 (citing Ex. 1003 ¶ 30). PO objects to the substance of this testimony, arguing it is “contradicted by the disclosure.” Mot. 5 (citing POR 48-62). PO’s argument is inappropriate for an evidentiary motion and, in any event, wrong on the merits. As Dr. Roginska explained, while the specification discloses examples of “things that can trigger

events,” notably absent is the claimed “leaving the 3D virtual environment.” Ex. 1003 ¶ 30; Reply 20-21. PO fails to identify any “facts or data” that Dr. Roginska allegedly concealed (FRE 702(b)) or any specific “related parts” allegedly absent from her testimony (FRE 106), and apart from citing the rules, PO provides no reason why her testimony should be excluded under FRE 401, 402, or 403.

Second, PO seeks to exclude Dr. Roginska’s testimony that “Lyren does not teach leaving the environment as a specific event that would warrant alerting or warning the user,” Ex. 1003 ¶ 251, arguing that her testimony is “conclusory” and “erroneous,” Mot. 6. Again, PO improperly disputes the merits, not admissibility. *See id.* And PO is wrong. As Dr. Roginska correctly opined, Lyren does not teach leaving the claimed environment (which must at least include a virtual image) as an event that would warrant alerting or warning the user. While PO asserts that she “fails to consider” certain disclosures in Lyren, it ignores that she quotes and cites some of the very paragraphs that PO complains went unaddressed. Ex. 1003 ¶¶ 250-251 (citing Ex. 1008 (Lyren) [0065], [0123]). Dr. Roginska properly considered Lyren’s entire disclosure and provided her opinion—her testimony is not missing “related parts” and is based on “sufficient facts or data.” Mot. 6. PO simply disagrees with Dr. Roginska, which is not a basis for exclusion.

Third, PO seeks to exclude Dr. Roginska’s testimony that there is no “reason why a POSA would have understood the ’140 Application to be teaching modifying

Figure 6 to apply to visually immersive environments.” Mot. 11 (quoting Ex. 1146 ¶ 82); *see also* Mot. 12 (quoting Ex. 1146 ¶¶ 81, 107). PO objects to this testimony because it allegedly ignores a purported “clear disclosure” in the ’140 Application that examples “can take place in physical spaces, in computer rendered spaces (VR), in partially computer rendered spaces (AR), and in combinations thereof.” Mot. 11 (quoting Ex. 1028 168:15-16). While framed as an evidentiary objection, PO takes issue with the substance of Dr. Roginska’s opinions, which is not a basis for exclusion. Dr. Roginska’s explanation of how a POSA would have understood the ’140 Application is appropriate and admissible expert opinion. She addressed the argument PO raises, concluding that the boilerplate language PO emphasizes would not suggest to POSAs that the inventors had possession of the alleged inventions of the challenged claims. Ex. 1146 ¶ 92; *see id.* ¶ 107 (“boilerplate language that various embodiments may be implemented with [a] WED does not help”).

Similarly, PO asserts that Dr. Roginska’s testimony that a “POSA would understand that a change in the ability to detect position in a physical environment implies that the user is still in the environment and not leaving it” should be excluded because she allegedly “fails to provide any ‘underlying facts or data.’” Mot. 12 (quoting Ex. 1146 ¶ 85). Dr. Roginska’s opinion is amply supported by facts and data: for example, the plain language of the ’140 Application itself, which describes “position *in* a physical environment,” which tells Dr. Roginska (and POSAs) that

“the user is still *in* the environment.” Ex. 1146 ¶ 85 (citing Ex. 1028 140:31-141:4).

Further, PO omits that Dr. Roginska cites to the Institution Decision as further support for her common-sense interpretation. Ex. 1146 ¶ 85 (citing ID at 25).

PO also seeks to exclude Dr. Roginska's testimony that “the '179 patent does not provide any express disclosure of a WED determining that the user is leaving an environment independently of a stationary tracking device.” Mot. 12-13 (quoting Ex. 1146 ¶ 100). Again, PO disagrees with Dr. Roginska, and fails to explain why her testimony should be excluded under any of the rules it cites. PO contends that certain components disclosed in the '179 patent “*can be used* to determine when a user is leaving the environment.” Mot. 13 (emphasis added). But even if this attorney argument were correct—and PO provides no evidence to suggest that it is—the fact that some disclosed components might be used as PO theorizes is not a disclosure of a WED determining that the user is leaving an environment, as claimed. At most, PO seems to be asserting that the '179 patent's disclosures would have rendered such a determination obvious, which is not the standard for written description support. In any case, there is no basis to exclude Dr. Roginska's testimony.

III. Conclusion

For the reasons set forth above, the Board should not exclude any portion of Dr. Roginska's testimony in this proceeding.

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I certify that on this 23rd day of August, 2024, a true and correct copy of the foregoing **Petitioners' Opposition to Patent Owner's Motion to Exclude** was served by electronic mail on Patent Owner's lead and backup counsel at the following email addresses:

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