

Jeffrey T. Lindgren (Admitted *Pro Hac Vice*)
Richard C. Vasquez (Admitted *Pro Hac Vice*)
Eric W. Benisek (Admitted *Pro Hac Vice*)
Robert S. McArthur (Admitted *Pro Hac Vice*)
Vasquez Benisek & Lindgren LLP
1550 Parkside Drive, Suite 130
Walnut Creek, CA 94596
Telephone: 925-627-4250
Fax: 925-903-0403
Email: jlindgren@vbllaw.com
Email: rvasquez@vbllaw.com
Email: ebenisek@vbllaw.com
Email: mcarthur@vbllaw.com

(Additional Counsel Listed Below)

Attorneys for Defendant Mito Red Light, Inc.

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ARIZONA**

Joovv, Inc., a Delaware Corporation,

Plaintiff,

v.

Mito Red Light, Inc., an Arizona
Corporation,

Defendant.

Case No. 2:23-cv-01084-MTL

**DEFENDANT MITO RED
LIGHT, INC.’S INITIAL
INVALIDITY
CONTENTIONS**

I. INTRODUCTION

Pursuant to this Court’s Order (ECF No. 034) of September 8, 2023, Defendant Mito Red Light Inc. (“Defendant” or “MRL”), provides hereby provides its initial invalidity contentions. Plaintiff Joov, Inc. (“Plaintiff”) has asserted infringement of the following patents and claims pursuant to its infringement contentions served on October 20, 2023: (1) U.S. Patent No. 10,639,495 (“the ’495 patent”), claims 1, 3, 5, 7, 8, 10, 17, 21, and 22; (2) U.S. Patent No. 10,828,505 (“the ’505 patent”), claim 1; (3) U.S. Patent No. 10,478,635 (“the ’635 patent”), claims 1, 7, 10, 14, 15, 16, 18, 19,

20, and 21 (4) U.S. Patent No. 11,253,719 (“the ’719 patent”), claims 1, 2, 3, 9, 10, 11, 16, 17, and 19; (5) U.S. Patent No. 11,033,752 (“the ’752 patent”), claims 1, 2, 3, 5, 6, 7, 8, 9, 10 and 14; (6) U.S. Patent No. 11,524,172 (“the ’172 patent”), claims 1, 6, 8, 12, 13, 14, 15, 17, 19 and 20; and (7) U.S. Design Patent No. D963,873 (“the ’D873 patent”), claim 1 (collectively “the asserted patents”).

II. GENERAL RESERVATIONS

These invalidity contentions are provisional. Defendant reserves the right to revise or supplement these contentions in light of party and third-party discovery (such as expected device art expected from third-parties), Plaintiff’s infringement contentions, any claim construction order issued by the Court, review and analysis by expert witnesses, and further investigation and discovery regarding the defenses asserted by Defendant. For example, Defendant expressly reserves the right to amend these contentions after issuance of the claim construction order, should Plaintiff provide any information that it failed to provide in its disclosures, or if Plaintiff amends its disclosures in any way. Further, because discovery is ongoing, Defendant reserves the right to revise, amend, and/or supplement the information provided herein, including identifying, charting, and relying on additional references. Further, Defendant reserves its rights to revise, amend, or supplement when Plaintiff provides additional discovery. Further, Defendant reserves the right to revise its ultimate contentions concerning the invalidity of the asserted claims, which may change depending upon further and ongoing investigation, the construction of the asserted claims and/or positions that Plaintiff or expert witnesses may take concerning claim construction, infringement, and/or invalidity issues.

Prior art not included in this disclosure, whether known or not known to Defendant, may become relevant. In particular, Defendant is currently unaware of the extent, if any, to which Plaintiff will contend that limitations of the asserted claims are not disclosed in the prior art identified by Defendant. To the extent that such an issue arises, Defendant reserves the right to identify other references that

1 would anticipate and/or render obvious the allegedly missing limitations of the
2 claims. Defendant reserves the right to rely on any reference found in the
3 prosecution histories of the applications leading to the asserted patents or otherwise
4 identified in connection with this action.

5 To the extent that the following contentions reflect constructions of claim
6 limitations consistent with or implicit in Plaintiff's infringement allegations or
7 proposed claim constructions, no inference is intended, nor should any be drawn,
8 that Defendant agrees with Plaintiff's infringement allegations or claim
9 constructions, and Defendant expressly reserves the right to contest such allegations
10 and claim constructions. Defendant offers such contentions in response to Plaintiff's
11 infringement allegations and proposed claim constructions and without prejudice to
12 any position that Defendant may ultimately take as to any claim construction issues.
13 Specifically, Defendant bases these invalidity contentions at least in part upon the
14 claim scope and certain claim constructions that are implicitly or explicitly asserted
15 by Plaintiff, and nothing herein should be construed or represented as evidencing
16 any express or implied agreement with any of Plaintiff's claim construction or
17 infringement positions.

18 Defendant intends to rely on admissions concerning the scope of the prior art
19 relevant to the asserted patents found in, *inter alia*: the asserted patents and related
20 patents and/or patent applications; the patent prosecution histories for the asserted
21 patents and related patents and/or patent applications (including all prior art cited
22 therein); any deposition testimony of the named inventors on the asserted patents
23 and related patents and/or patent applications in this matter or any other matter;
24 evidence and testimony relating to the level of skill in the art; and the papers filed
25 and any evidence submitted by Plaintiff in connection with this matter.

26 Defendant's claim charts cite to particular teachings and disclosures of the
27 prior art as applied to features of the asserted claims. However, persons having
28 ordinary skill in the art generally may view an item of prior art in the context of

1 other publications, literature, products, and understanding. As such, the cited
2 portions are only examples, and Defendant reserves the right to rely on uncited
3 portions of the prior art references and on other publications, expert testimony, and
4 other evidence as aids in understanding and interpreting the cited portions, as
5 providing context thereto, and as additional evidence that the prior art discloses a
6 claim limitation or any of the asserted claims as a whole. Defendant further reserves
7 the right to rely on uncited portions of the prior art references, other publications,
8 and testimony, including expert testimony, to establish bases for combinations of
9 certain cited references that render the asserted claims obvious.

10 The references discussed in the claim charts may disclose the elements of the
11 asserted claims explicitly and/or inherently, and/or they may be relied upon to show
12 the state of the art in the relevant timeframe. The suggested obviousness
13 combinations are provided in addition to and/or in the alternative to Defendant's
14 anticipation contentions and are not to be construed to suggest that any reference
15 included in the combinations is not by itself anticipatory.

16 The following discussion and exhibits provide exemplary prior art citations
17 and obviousness positions. The citations and discussion in the charts are organized
18 by claim (and claim limitation) for convenience, but each limitation or claim section
19 applies to the larger context of each claim, to any related dependent or independent
20 claims, as well as all claims containing similar limitations or elements. For example,
21 citations as to any recited limitation, step, or component in the claims apply
22 wherever each such limitation, step, or component is repeated elsewhere in the claim
23 or patent. Where Defendant cites to a particular drawing or figure in the attached
24 claim charts, the citation encompasses the description of the drawing or figure, as
25 well as any text associated with the drawing or figure. Similarly, where Defendant
26 cites to particular text concerning a drawing or figure, the citation encompasses that
27 drawing or figure as well. Relatedly, certain portions of patent or other prior art
28 disclosures build upon other disclosures, even if they are referred to as a separate or

1 alternative embodiment. Thus, Defendant's citations to structures or functions
2 incorporate by references all disclosures to related structures or functions, including
3 any additional detail provided as to the operation or design of those structures or
4 functions.

5 Discovery is ongoing. Defendant reserves the right to assert that the asserted
6 claims are invalid under 35 U.S.C. § 102(f) in the event Defendant obtains
7 additional evidence that the inventors of the asserted patents did not invent the
8 subject matter claimed therein. Should Defendant obtain such evidence, they will
9 provide the name of the person(s) from whom and the circumstances under which
10 the alleged invention or any part of it was derived.

11 Defendant also reserves their rights to challenge any of the claim terms herein
12 under 35 U.S.C. § 112 beyond the grounds outlined in their responses to
13 interrogatories related to invalidity, including by arguing that they are indefinite, not
14 supported by the written description, or not enabled. Nothing stated herein shall be
15 construed as a waiver of any argument available under 35 U.S.C. §§ 101, 102, 103,
16 and/or 112.

17 **III. U.S. PATENT NO. 10,639,495**

18 **A. Relevant Prior Art**

19 Defendant contends that the prior art references identified in Defendant's
20 contentions anticipate or render obvious the asserted claims of the '495
21 patent. Based on the information reasonably available to Defendant, the priority date
22 of the asserted claims of the '495 patent is no earlier than October 22, 2018, the
23 filing date of the Application No. 16/167,385 ("the '385 application").

24 The '495 patent "relates to photobiomodulation therapy systems and
25 methods" and describes in the Background that the field of "[p]hotobiomodulation
26 therapy (or light therapy) is a therapeutic technique that uses low-level wavelengths
27 of light to improve health and treat a variety of health conditions, including skin
28 issues, such as wrinkles, scars, and persistent wounds, among many other

conditions. Similar to how plants use sunlight to heal and grow, humans and animals are able to harness these wavelengths of light and turn them into cellular energy. This treatment stimulates the body's natural healing processes.” Col. 1:31-44. It concedes that “there are a number of photobiomodulation therapy devices available on the market” but observes that “many of these devices are too small and require multiple sessions to treat large areas. As a result, there is a need for a photobiomodulation therapy system that can treat several areas in fewer treatments.” *Id.* at 1:45-50. Thus, the ’495 patent proclaims to disclose “a variety of communicatively coupled light therapy systems.”

Below, Defendant lists some of the prior art cited in these contentions:

1. Patents and Printed Publications

Bates Number Begin	Bates Number End	Prior Art Reference
MRL00004067	MRL00004081	DE7638568U1
MRL00004082	MRL00004089	DE202012012004U1
MRL00004090	MRL00004104	DE7638568U1
MRL00004105	MRL00004109	English Translation of DE763856
MRL00004110	MRL00004116	CN205924721U
MRL00004117	MRL00004121	English Translation of CN205924721U U
MRL00004122	MRL00004139	FR2917299A1
MRL00004140	MRL00004149	K5 BOOK WEB 2016 new
MRL00004150	MRL00004182	Mouser Racks and enclosures
MRL00004183	MRL00004186	US1617028
MRL00004187	MRL00004201	US4095113
MRL00004202	MRL00004208	US4844069
MRL00004209	MRL00004216	US5733032
MRL00004217	MRL00004229	US5996728
MRL00004230	MRL00004244	US6896693
MRL00004245	MRL00004292	US9227082
MRL00004293	MRL00004307	US10064940
MRL00004308	MRL00004322	US10363434
MRL00004323	MRL00004341	US20040008523A1
MRL00004342	MRL00004351	US20070129777A1
MRL00004352	MRL00004373	US20120104977A1
MRL00004374	MRL00004384	US20120170264A1
MRL00004385	MRL00004393	US20150307332A1

1	Bates Number Begin	Bates Number End	Prior Art Reference
2	MRL00004394	MRL00004405	US20160278304A1
3	MRL00004406	MRL00004436	US20190282826A1
4	MRL00004437	MRL00004479	CA3059989A1
5	MRL00004480	MRL00004492	EP2923728A1
6	MRL00004493	MRL00004505	EP2923728A1
7	MRL00004506	MRL00004516	English Translation of EP2923728
8	MRL00004517	MRL00004532	English Translation of FR3014322B1
9	MRL00004533	MRL00004548	EP1664621B1
10	MRL00004549	MRL00004564	EP3001777A1
11	MRL00004565	MRL00004570	EP3232740B1
12	MRL00004571	MRL00004597	KR101715102B1
13	MRL00004598	MRL00004619	KR200488956Y1
14	MRL00004620	MRL00004641	KR200489354Y1
15	MRL00004642	MRL00004649	KR20090055891A
16	MRL00004650	MRL00004655	English translation of KR20090055891
17	MRL00004656	MRL00004664	KR20100009542U
18	MRL00004665	MRL00004672	English Translation of KR20100009542U
19	MRL00004673	MRL00004682	US3648706
20	MRL00004683	MRL00004799	US6166496
21	MRL00004800	MRL00004835	US7932482
22	MRL00004836	MRL00004846	US8425577
23	MRL00004847	MRL00004864	US9314302
24	MRL00004865	MRL00004883	US9491833
25	MRL00004884	MRL00004900	US9526860
26	MRL00004901	MRL00004921	US9533170
27	MRL00004922	MRL00004936	US10589122
28	MRL00004937	MRL00004988	US10632325
	MRL00004989	MRL00005068	US10881550
	MRL00005069	MRL00005112	US11058889
	MRL00005113	MRL00005143	US11141219
	MRL00005144	MRL00005180	US11395925
	MRL00005181	MRL00005193	US20020198575A1
	MRL00005194	MRL00005203	US20040068305A1
	MRL00005204	MRL00005220	US20050075703A1
	MRL00005221	MRL00005235	US20060229689A1
	MRL00005236	MRL00005260	US20070217199A1
	MRL00005261	MRL00005326	US20100121420A1
	MRL00005327	MRL00005339	US20110054573A1
	MRL00005340	MRL00005357	US20140071681A1

Bates Number Begin	Bates Number End	Prior Art Reference
MRL00005358	MRL00005384	US20150112411A1
MRL00005385	MRL00005392	US20150134032A1
MRL00005393	MRL00005411	US20150224332A1
MRL00005412	MRL00005426	US20180008839A1
MRL00005427	MRL00005436	US20180296854A1
MRL00005437	MRL00005459	US20190030359A1
MRL00005460	MRL00005487	US20190142636A1
MRL00005488	MRL00005690	US20190201711A1
MRL00005691	MRL00005716	US20190269934A1
MRL00005717	MRL00005733	US20200001105A1
MRL00005734	MRL00005779	US20200269065A1
MRL00005780	MRL00005823	US20200360714A1
MRL00005824	MRL00005828	USD679440
MRL00005829	MRL00005839	CN108187235A
MRL00005840	MRL00005848	English Translation of CN108187235A
MRL00005849	MRL00005854	CN200963440Y
MRL00005855	MRL00005861	CN204364686U
MRL00005862	MRL00005868	CN204364686U
MRL00005869	MRL00005869	English Translation of Abstract of CN204364686U
MRL00005870	MRL00005878	DE202016101699U1
MRL00005879	MRL00005884	English Translation of DE202016101699U1
MRL00005885	MRL00005947	US20050085875A1
MRL00005948	MRL00005985	US20080269849A1
MRL00005986	MRL00006015	WO2017066270A1
MRL00006016	MRL00006079	English Translation of EP3490671A1
MRL00006080	MRL00006103	English Translation of KR101715102B1
MRL00006104	MRL00006117	English Translation of KR200488956Y1

Moreover, Defendant hereby incorporates by reference all the references cited during the prosecution of the '495 patent and those references that appear on the face of the '495 patent.

B. Anticipation and Obviousness

Defendant attaches Exhibits A-1 to A-11, which provide exemplary disclosures showing how the prior art anticipates and/or renders obvious the asserted claims of the '495 patent. These charts identify primary references, and in some cases, secondary references, and obviousness contentions. Defendant may rely on

any of the primary references identified in Exhibits A-1 to A-10 in combination with any reference identified in those exhibits and Exhibit A-11. Defendant's anticipation contentions are presented in the following exhibits, each of which describes anticipation of one or more claims of the '495 patent by a primary reference:

Exhibit	Primary Reference
A- 1	US10589122B2 to Boyajian ("Boyajian")
A- 2	US 2020/0269065 to ("Broeng")
A- 3	US 2019/0030359 to Dijkstra ("Dijkstra")
A- 4	US 2006/0229689 to Ferguson ("Ferguson")
A- 5	US 2018/0008839 to Hamid ("Hamid")
A- 6	EP2923728A1 to Huout ("Huout")
A- 7	US 10632325 to Lim ("Lim")
A- 8	US 2011/0054573 to Mitchell ("Mitchell")
A- 9	US 2002/0198575 to Sullivan ("Sullivan")
A- 10	US 8425577 to Vargas ("Vargas")
A- 11	US 2020/0360714 to Shterzer ("Shterzer") US 2011/0054573 to Adam ("Adam") US 2015/0112411 to Beckman ("Beckman") US 7932482 to Norwood ("Norwood") US 2014/0071681 to Ghafoori ("Ghafoori") US 2014/0071681 to Schwarz ("Schwarz") EP 3232740B1 to Bevilacqua ("Bevilacqua") US 3648706 to Holzer ("Holzer") US 9314302 to Dougal ("Dougal") US 9533170 to Dye ("Dye") US 2019/0201711A1 to Brawn ("Brawn") US 20050075703A1 to Larsen ("Larsen") KR 200489354Y1 ("KR'354")

Defendant's obviousness contentions are also contained in Exhibits A-1 to A-11.

The U.S. Supreme Court in *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007) emphasized that inventions arising from ordinary innovation, ordinary skill,

1 or common sense should not be patentable. *Id.* at 1732, 1738, 1742-1743, 1746. A
2 patent claim may be obvious if the combination of elements was obvious to try or if
3 there existed at the time of the invention a known problem for which there was an
4 obvious solution encompassed by the patent's claims. When a work is available in
5 one field of endeavor, design incentives and other market forces can prompt
6 variations of it, either in the same field or a different one. If a person of ordinary
7 skill can implement a predictable variation, Section 103 of Title 35 likely bars its
8 patentability. *Id.* at 1740. The Court stated that courts should "look to interrelated
9 teachings of multiple patents; the effects of demands known to the design
10 community or present in the marketplace; and the background knowledge possessed
11 by a person having ordinary skill in the art, all in order to determine whether there
12 was an apparent reason to combine the known elements in the fashion claimed by
13 the patent at issue." *Id.* at 1740-41. *KSR* does not mandate evidence of a motivation
14 or suggestion to combine prior art references. *See TGIP, Inc. v. AT&T Corp.*, 527 F.
15 Supp. 2d 561, 580-81 (E.D. Tex. 2007). "[A] court can take account of the
16 inferences and creative steps that a person of ordinary skill in the art would employ"
17 to resolve the question of obviousness. *KSR*, 127 S. Ct. at 1741. Under the Graham
18 Test, in order to determine whether an invention is obvious in light of the prior art,
19 the following factors are considered: 1) the scope and content of the prior art; 2) the
20 differences between the prior art and the claims (or invention) at issue; 3) the level
21 of ordinary skill in the pertinent art; and 4) secondary considerations of non-
22 obviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 15-16 (1966).

23 Based on all of these considerations, as further detailed in Exhibits A-1 to A-
24 11, persons of ordinary skill in the art would have combined the teachings of the
25 prior art references discussed and charted in those exhibits with teachings from the
26 same reference, with the knowledge of a person of skill in the art, and/or with
27 teachings from other prior art references as disclosed in Exhibits A-1 to A-11. The
28 combinations of these references would have rendered obvious to one of ordinary

1 skill in the art the subject matter of the asserted claims of the '495 patent. The
2 references identified in Exhibits A-1 to A-11 are analogous prior art to the subject
3 matter of the asserted claims and, for at least the reasons set forth below, are
4 properly combinable. Because these prior art references exist within a single field of
5 art, particularly one in which individuals in the field often shared and/or
6 collaborated on their work, it would have been obvious for a person of skill in the art
7 to look from one piece of prior art to another in order to find any missing
8 functionality they desired to implement. Therefore, these references provide
9 interrelated teachings and one of ordinary skill would look to the concepts in any of
10 these references when seeking to solve the problems purportedly addressed by the
11 '495 patent.

12 Numerous prior art references, including those identified in the attached
13 exhibits, reflect common knowledge and the state of the prior art before the earliest
14 claimed effective filing date of the '495 patent. As it would be unduly burdensome
15 to create detailed claim charts for all of the invalidating combinations, for at least
16 the reasons described in these invalidity contentions, it would have been obvious to
17 one of ordinary skill in the art to combine any of a number of prior art references,
18 including any combination of those identified in the attached exhibits, to meet the
19 limitations of the asserted claims of the '495 patent. Defendant's inclusion of
20 exemplary combinations, in view of the factors and motivations identified here, does
21 not preclude Defendant from identifying other invalidating combinations and/or
22 motivations as appropriate.

23 No showing of a specific motivation to combine prior art is required to
24 combine the references disclosed above and in the attached charts, because each
25 combination of art would have no unexpected results, and at most would simply
26 represent a known alternative to one of ordinary skill in the art. *See KSR*, 127 S. Ct.
27 at 1739-40 (rejecting the Federal Circuit's "rigid" application of the teaching,
28 suggestion, or motivation to combine test, instead espousing an "expansive and

flexible” approach). Indeed, the Supreme Court held that a person of ordinary skill in the art is “a person of ordinary creativity, not an automaton” and “in many cases a person of ordinary skill in the art will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *Id.* at 1742. Nevertheless, in addition to the information contained herein, Defendant hereby identifies additional motivations and reasons to combine the cited art.

One or more combinations of the prior art references identified herein, with itself, the knowledge of one of skill in the art, or with other references, would have been obvious because these references would have been combined using: known methods to yield predictable results; known techniques in the same way; a simple substitution of one known, equivalent element for another to obtain predictable results; and/or a teaching, suggestion, or motivation in the prior art generally. In addition, it would have been obvious to combine the prior art references identified above because there were only a finite number of predictable solutions and/or because known work in one field of endeavor prompts variations based on predictable design incentives and/or market forces either in the same field or a different one. In addition, the combinations of the prior art references identified above would have been obvious because the combinations represent the known potential options with a reasonable expectation of success.

Additional evidence that there would have been a motivation or reason to combine the prior art references identified above includes the interrelated teachings of multiple prior art references; the effects of demands known to the design community or present in the marketplace; the existence of a known problem for which there was an obvious solution; the existence of a known need or problem in the field of endeavor at the time of the invention; and the background knowledge that would have been possessed by a person having ordinary skill in the art. For example, the prior art references are generally directed to the same problems. Thus, a skilled artisan seeking to solve these problems would look to these cited references

1 in combination.

2 Thus, the motivation or reason to combine the teachings of the prior art
3 references disclosed herein is found in the references themselves and in: (1) the
4 nature of the problems being solved; (2) the express, implied, and inherent teachings
5 of the prior art; (3) the knowledge of persons of ordinary skill in the art; (4) the fact
6 that the prior art is generally directed towards the same problems; and/or (5) the
7 predictable results obtained in combining the different elements of the prior art; (6)
8 the use of a known technique to improve similar devices, methods, or products in the
9 same way; (7) the predictable results obtained in applying a known technique to a
10 known device, method, or product ready for improvement; (8) the finite number of
11 identified predictable solutions that had a reasonable expectation of success; and (9)
12 known work in various technological fields that could be applied to the same or
13 different technological fields based on design incentives or other market forces.

14 It would have been obvious to combine any of the prior art in Exhibits A-1 to
15 A-11 because all of these references relate to devices and methods with limitations
16 that were well known to the skilled artisan prior to the '385 application.

17 A wide variety of techniques were known to the skilled artisan in the
18 development of light therapy systems prior to the filing of the '385 priority application.
19 In particular, as discussed below, each of the limitations of the asserted claims of the
20 '495 patent were known to the skilled artisan and available in the artisan's
21 "toolbox." Indeed, it would be simply a matter of design choice to draw from these
22 known techniques and combine them to render the asserted claim invalid.

23 ***Light Therapy Systems Using Red and Near Infrared (NIR) Light for***
24 ***Therapeutic Applications.*** Light Therapy systems with communicatively coupled
25 light devices, such as panels or light arrays, have been well known in the art for some
26 time. The physical benefits of light therapy, or photobiomodulation ("PBM") were
27 studied extensively prior to the priority application for the '495 patent. Many
28

1 publications and patents described these systems, their purposes, controls and other
2 features in detail. Only some of those patents and publications are discussed here.

3 Early prior art like *Holzer*, *Mori*, *Sullivan* and *Bansal* disclosed light
4 treatment apparatus and extensively discussed the benefits of PBM. *See e.g.*,
5 *Sullivan* at [0005-0026] (discussing “light emitting diodes emitting electromagnetic
6 radiation of various wavelengths (i.e., colors) for administering positive and
7 beneficial treatments to living organisms (including mammals) for injury, pain relief
8 and illness.”) *Dijkstra* also disclosed a “device for treating various external and
9 internal body conditions by using LED Light Therapy, Laser Light Therapy, Photo-
10 Bio-Modulation Therapy (PBMT), Photodynamic Therapy (PDT), UV based light
11 therapy and/or any other suitable light therapy.” [0001]

12 The benefits of red and near infra-red (“NIR”) light was well known for its
13 therapeutic properties well before the filing of the ’385 priority application. For
14 example, *Ferguson* discloses an LED panel front surface [that] is a uniform color
15 and includes an array of mounted infra-red LEDs. *Ferguson* at [0025]. *Hamid*
16 discloses “[a] photo-bio-stimulation device uses near infrared (NIR) laser
17 illumination of the scalp to promote hair growth with a lightweight user wearable
18 device.” *Hamid* at Abstract. *Huout* discloses a wide range of therapeutically
19 beneficial light wavelength including red and NIR. “Preferably, the light source
20 comprises an emission spectrum having a maximum emission wavelength chosen
21 from the wavelength ranges 400 nm to 440 nm, 590 nm to 650 nm and 810 nm to
22 850 nm.” *Huout* at [0026]. Moreover, *Mitchell* teaches an “emitter unit can include
23 an array of LEDs 106 or other emitters that emit infrared and/or near-infrared light
24 at a wavelength specific to the optic window of human tissue.” *Mitchell* at [0022].
25 *Sullivan* teaches a combination of Red and NIR emitters for PBM: “LED's emitting
26 red light at 630 nm, 12 LED's emitting infrared (IR) light at 880 nm, and 12 LED's
27 emitting blue light at 470 nm.... The red, blue and IR light emitting LED's, as well
28 as their availability, are well known in the art and, therefore, are not explained

1 further.” *Sullivan* at [0056]. *Vargas* discloses “a skin treatment device, and more
2 particularly, to an apparatus for the application of red and near infra-red LED
3 phototherapy over large areas of a user's body.” *Vargas* at 1:11-13. *Lim* teaches the
4 use of both wavelength spectrums for therapeutic treatment and discloses an
5 “irradiation unit [] which is capable of generating light energy of at least one
6 preselected wavelength selected from the group consisting of near infrared red light
7 wavelengths and visible red light wavelengths.” *Lim* at 11:21-27. Many references
8 discussed in these contentions disclose the benefits of red and NIR therapy. *See,*
9 *e.g., Shterzer, Adam, Beckman, Holzer, Dougal, Dye, Brawn, Larsen, KR’354. See*
10 *Ex. A-11.* Thus, red and NIR light therapy were well known to a POSITA prior to
11 the to the filing of the ’385 priority application.

12 A POSITA seeking to develop a light-based therapy device would look to and
13 draw motivation from this established art and its teachings to incorporate red and
14 NIR light. As discussed above, these wavelengths of light have long been known to
15 provide healing benefits for all types of ailments. A POSITA would be acutely
16 aware of the healing properties of red and near infrared light would utilizes these
17 wavelengths for those properties as a design choice dependent of the condition the
18 POSITA seeks to treat.

19 In particular, the ’385 priority application attempts to address shortcomings of
20 the prior art PMB with respect to the inadequate size requiring multiple sessions.
21 Many prior art references cited herein address this same problem. For example,
22 *Dijkstra* discloses a system where “[t]he first and the second light therapy devices
23 are identical to each other and are being used together to cover the maximum body
24 portion of the user at one time.” *Dijkstra* at [0096]. A POSITA would look to use
25 red and NIR light as the primary wavelengths for development of a therapy light
26 device based up the knowledge of these wavelength treatment effectiveness which
27 would result in a reduction in treatment sessions. *Boyajian* teaches a five panel
28 system with "lighted hinge" to reduce or eliminate optical dead spaces between

1 adjacent panels when the illuminator is bent into a certain configuration.” *Boyajian*
2 at Abstract. Because these references seek to solve the same problem discussed in
3 the ’385 priority application, a POSITA would be motivated to consult these
4 references for inspiration, teachings and general art in the field of Light Therapy
5 Systems Using Red and Near Infrared (NIR) Light.

6 ***Light Therapy Systems with Communicatively Coupled Light Devices.*** Light
7 therapy systems with communicatively coupled light devices were also well known
8 in the art. Many prior art PBM therapy systems taught light devices that were
9 communicatively coupled together for treatment. The prior art teaches that multiple
10 panels provide more irradiation coverage. For example, *Ferguson* discloses a
11 multiple module light therapy device for therapeutic treatment noting “[r]ecent
12 inventions have taken the use of light as a therapeutic device from the realm of
13 science-fiction to an actual science.” *Ferguson* at [0006]. “One embodiment of the
14 current invention comprises two LED panels and a pedestal. Each LED panel
15 includes a front surface and a back surface.” *Id.* at [0016]. *Baaijens* discloses
16 “various embodiments of the approach disclosed herein are particularly suited for a
17 lighting system that is utilized for therapeutic purposes such as treating jetlag, social
18 jetlag, seasonal depression, Surgery recovery, etc[,]” 8:6-10, and teaches that the
19 multiple fixtures can communicate via integrated controllers. “[I]n some
20 embodiments multiple lighting fixtures 110 may be provided, each having a
21 controller integrated therein and controllers across multiple lighting fixtures 110
22 may optionally communicate with one another. Also, for example, in some
23 embodiments multiple lighting fixtures 110 may be provided, with one having a
24 controller integrated therein that controls multiple lighting fixtures 110 via
25 communication with those other lighting fixtures.” *Baaijens* at 9:2-9. *Houot* notes
26 “[p]rior art phototherapy equipment for professional use is already known,
27 comprising a support mounted on a base with rollers and a head articulated on the
28 support comprising four adjacent luminous panels” [0010] and discloses “equipment

1 for treating a region of the body of a user by phototherapy.” *Houot at* [0013].
2 *Boyajian* specifically discuss the benefits of multiple device geometry to increase
3 the irradiation areas and propose structure that “uses a plurality of panels, wherein at
4 least one panel is of a different width than the other panels. This panel is positioned
5 between two other panels and, in a way, acts as a “lighted hinge” to provide enough
6 “fill-in” light to reduce or eliminate the optical dead spaces when the panels are bent
7 into a certain configuration. Preferably, five panels in total are used to provide for an
8 optimal increase in the total size of possible treatment areas.” *Boyajian at* 2:62-3:3.
9 Thus the prior art was replete with multiple light devices in communication with one
10 another. Notably, a POSITA would understand that because the light devices were
11 able to communicate, they would be *a priori* “communicatively coupled” and that a
12 communication module must be present in each light device for coupling to be
13 established. Many references disclose multiple communicatively coupled devices.
14 *See, e.g., Dijkstra, Vargas, , Adam, Beckman, Schterzer, Lim, Hamid, Holzer,*
15 *Houot, Broeng, Dougal, Dye, Brawn, Larsen, KR’354. See Ex. A-11.*

16 Moreover, the existence of “Light Therapy Systems with Commutatively
17 Coupled Light Devices” was conclusively established in the prior art during the
18 prosecution history of the ’635 patent and provides substantial evidence of the state
19 of the art at the time the ’385 patent priority application was filed. During the initial
20 prosecution of the ’635 patent, the original claims were rejected in view of the
21 teachings of *Mitchell*. In particular, the examiner argued that *Mitchell* taught a red
22 light and near infrared light therapy system with multiple light therapy devices each
23 having a communication module (wired or wireless) communicatively coupling the
24 light therapy devices. See MRL00000147-371, 02.15.2009 Non-Final Office action
25 at 4. In response to this rejection, the Patent Applicant argued, *inter alia*, that
26 *Mitchell* did not disclose a communication module located within a housing or a first
27 communication module configured to communicate directly with a second
28 communication module. *Id.*, 03.18.2009 Remarks at 11-12. The Examiner rejected

1 this argument noting that “the wired or wireless communication described in
2 paragraph [0030] satisfies the claim limitations, as the claim only requires direct
3 communication, rather than a direct connection.” *Id.*, 05.24.2019 Final Office
4 Action at 5-6. The patent applicant capitulated to the Examiner and amended the
5 claims to include control panel with input buttons and indicator lights. *Id.*,
6 06.14.2019 Response to Final Office Action at 3-4.

7 Thus, the prosecution history the ’635 patent as well as numerous prior art
8 reference clearly demonstrate that *light therapy systems with multiple*
9 *communicatively coupled light therapy devices housing a plurality of red light and*
10 *near infrared light lights including communication modules (wired or wireless)*
11 were well known at the time of the filing of the ’385 priority application.

12 A POSITA looking to develop a light-based therapy device would look to this
13 established art and its teachings to multiple communicatively connect multiple light
14 emitting devices. As discussed, ’385 priority application attempts to address
15 shortcomings of the prior art PMB with respect to the inadequate size requiring
16 multiple sessions. Many prior art references cited herein address this same problem
17 by disclosing systems using of multiple devices to allow for increased treatment
18 areas size. *See supra*. Because increased treatment area size requires multiple light
19 devices, A POSITA would look to the coupling techniques of centralized power
20 input and control taught by the prior art discussed about. This includes analog,
21 digital and remote control that were well known in the art. Moreover, coupling and
22 decentralized addressable techniques have long been known in the light control art
23 and would be within the skilled artisan’s design choice toolbox. *See*

24 <https://www.dali-alliance.org/dali/>

25 ***Light Therapy Devices with Complex Control Panels with Indicator lights,***
26 ***Switches and Buttons.*** Many prior art publications and patents disclosed separate
27 complex multi-control panels, one associated with each light therapy device. These
28 prior art control panels were known to incorporate indicator lights, switches and

1 buttons to control the operation, timing, wavelength emission and power input. The
2 prior art exposed during the prosecution history is evidence of the state of the art of
3 control panels. Subsequent to the issuance of the '635 patent, *ex parte*
4 reexamination was requested and instituted. In particular, the Patent Office found
5 that *Dijkstra, Vargas, Broeng, Sullivan and Shterzer* all disclosed multiple light
6 therapy devices with a separate control panel with indicator lights. MRL00003014 –
7 3444 at 4. In particular, the examiner found that *Dijkstra* disclosed “first and second
8 light therapy devices, each with its own control panel and being operated in
9 synchrony.” *Id.* at 5. *Vargas* disclosed “first and second light sources that are
10 operated by two control panels.” *Id.* at 6. “Broeng teaches that multiple devices can
11 be used at [0299] and hence appears to teach first and second light sources that are
12 operated by two control panels, one associated with each device.” *Broeng.* at 7.
13 *Sullivan* teaches first and second light sources that are operated by a processor 29
14 with a control panel (switched for time, frequency, pattern, etc.). *Sullivan* at 8.
15 Finally, *Shterzer* teaches first and second light sources 104A-104N that are each
16 operated by its own control unit 134. *Shterzer* at [0165].

17 Moreover, *Adams* (in combination with *Mitchell*) was found by the Patent
18 Office to disclose indicator lights on a control panel during prosecution of the
19 related '495 patent. MRL00000372-612, 12.06.2019 First Office Action. In
20 particular *Adams*, “discloses a light therapy device with a plurality of lights and a
21 control panel with an input button and two first indication lights. *See id.* at [0051]
22 ,[0066] (describing multiple indication lights). While the Patent Applicant
23 responded that *Adams* did not specifically disclose a control panel, the Examiner
24 reasoned that “because Adam discloses a first input button and a first pair of
25 indication lights, Adam provides the control panel as claimed.” MRL00000372-
26 612, 12.27.2019 Interview Summary at 1. Like *Adams*, *Norwood* provides an
27 explicit disclosure of digital control logic to control the characteristics of the light
28 emission. *Norwood* at 23:20-25-61 (discussing control logic and microprocessor

1 control). *Norwood* teaches that multiple device control can be achieved through the
2 general-purpose computer programming. As one more example, *Dijkstra* discloses
3 the use of remote devices, such as smartphones, to control light therapy devices. For
4 example, *Dijkstra* teaches: “Referring to FIG. 5, the light therapy system 100
5 comprises of a remote device, *i.e.*, a mobile device 520 held by a user and a light
6 therapy device 200 according to a second embodiment of the present disclosure.”
7 *Dijkstra* at [0093]. *Dijkstra* teaches that the mobile device 520 is communicatively
8 coupled to the light therapy device 200 via NFC, WI-FI, Bluetooth or any other
9 wired or wireless communication means,” and that “the display of the mobile device
10 520 acts as a display unit 160 for the light therapy device 20.” *Id.* “The mobile
11 device 520 is having a software application installed in it. The software application
12 provides a user interface 430 where a user can find multiple options to select in
13 order to communicate with the light therapy device 200. Once the mobile device is
14 connected with the light therapy device 200 the user is able to control the light
15 therapy device 200 via the user interface.” *Id.* Similarly, *Broeng* teaches the use of
16 remote devices to control the light therapy device. “In this regard, it is noted that in
17 certain embodiments the controller is integral to the device (e.g., incorporated into
18 the housing of the device), while in other embodiments, the controller may be
19 remote from the device and coupled by a control cable or cables ((*see, e.g.*, 109 in
20 the illustrative, but non-limiting embodiments shown in FIG. 1). In other
21 embodiments the controller may control the phototherapy device through a radio
22 link, a light (e.g., infra-red link), via a Bluetooth link, and via a WiFi link. In certain
23 embodiments the controller comprises an App on a cell phone, tablet, or computer.”
24 *Broeng* at [0267].

25 Thus, Light Therapy Devices with Control Panels with Indicator lights
26 Switches and Buttons were well known to a POSITA prior to the to the filing of the
27 ’385 priority application. *See* Ex. A-11.
28

1 A POSITA looking to develop a light-based therapy device would look to this
2 established art and its teachings of control system implementation. As discussed,
3 '385 priority application attempts to address shortcomings of the prior art PMB with
4 respect to the inadequate size requiring multiple sessions. Many prior art references
5 cited herein address this same problem by disclosing systems using of multiple
6 devices to allow for increased treatment areas size. *See supra*. Because increased
7 treatment area size requires multiple light devices to be controlled to provide the
8 sought-after treatment, a POSITA would look to the centralized techniques of
9 controlling power input and control to the multiple devices as taught by the prior art
10 discussed about. This includes analog, digital, and remote control. These coupling
11 techniques have long been known in the light control art and would be within the
12 skilled artisan's design choice toolbox. Moreover the skilled artisan would be aware
13 of differing methods to do so, including indicator lights, buttons, physical switches
14 for software based general purpose computer control. The nature of the NIR light
15 therapy itself requires a solution that provides user with an indication that the NIR
16 lighting was on because it was not visible to the naked eye. These types of solutions
17 are plentiful in the prior art to which the POSITA would look in evaluating design
18 choices.

19 ***Light Therapy Devices with Lead and Follow Operation and Mode Select***
20 ***Switches.*** Lead and follow operation with mode select switches for light therapy
21 devices was also well known in the prior art before the priority date of the '385
22 patent application. Commonly referred to in the art as master-slave control, the '385
23 priority patent application describes Lead and Follow Operation: "To ensure that the
24 light therapy devices 12 operate in the same way, some embodiments feature a lead
25 mode 70 and a follow mode 80. A light therapy device 12 that is configured to be in
26 the lead mode 70 may send operation instructions to all other light therapy devices
27 12 in the system 10. A light therapy device 12 that is configured to be in the follow
28 mode 80 may receive operation instructions from a light therapy device 12 that is in

1 the lead mode 70.” ’635 patent at 7:38-45. When the claims of the original ’635
2 patent were found unpatentable over *Dijkstra* in view of *Norwood* in the ’635 patent
3 reexamination, the Applicant accepted that the prior art disclosed its lead and follow
4 operation controlled by a mode select switch and chose to amend the claims to
5 include “lead, follow *and neutral* mode operational capabilities” rather than contest
6 the prior art’s disclosures. MRL00003014-3444, 02.09.2022 *Ex Parte* Notice of
7 Intent to Issue Reexamination Certificate at 2 (emphasis added). Indeed, the patent
8 owner described neutral mode as “key novel aspect that was indicated as allowable
9 over the [prior] art.” MRL00003014-3444, 12.06.2021 Agenda for Examiner
10 Interview on December 2, 2021 at 3 (Remarks). Thus, in choosing not to contest the
11 prior art disclosing lead and follow operation and relying on the “novelty” of neutral
12 mode, the patent owner admitted that lead and follow operation was known and
13 disclosed. Given the state of the art discussed below, this admission is clearly
14 warranted and supported.

15 For example, during the reexamination of the ‘495 patent, the concept of a
16 system with two light therapy devices each able to be switched to either of a lead
17 mode and a follow mode was found to have been disclosed in the prior art.
18 10.07.2021 Order granting Reexamination; Request for *Ex Parte* Reexamination at
19 Ground 5, pp. 54-67. In particular, the Patent Office found that *Broeng, Beckman,*
20 *Ferguson, Lim, Dijkstra* and *Norwood*, alone or in combination invalidated the
21 claims directed to two light therapy devices each able to be switched to either of a
22 lead mode and a follow mode. *Id.* *Dijkstra* explicitly disclosed master-slave
23 operation among the light therapy devices and *Norwood* detailed the control of the
24 master-slave operation. “*Dijkstra* teaches first and second light therapy systems that
25 are operated in synchrony and can be used in a master/slave configuration, while
26 *Norwood* teaches a switching arrangement for master/slave selection.” *Id.* at 8.
27 Indeed, in during the subsequent prosecution of the ‘172 patent application which
28 claims priority to the ‘385 patent application, the applicant *admitted and confirmed*

1 that “Dijkstra and Norwood both disclose master/save mode[.]” MRL00002240-
2 2934, 09.27.2022 Reply at 15.

3 Many prior art references disclose lead follow operation described as master
4 slave functionality. For example, *Ferguson* discloses a lead-follow operation as a
5 master-slave arrangement between its two panels. “Included on one of the LED
6 panels' one or more side surfaces is a power input mechanism, an on/off push
7 button, and a power output. This is the master panel. Power is supplied from a
8 power supply to the power input mechanism. The one or more side surfaces of the
9 other LED panel in the current embodiment includes only a power input. This is the
10 slave panel.” *Ferguson* at [0025]. *Huout* is another excellent example of master
11 slave control when it teaches “centralizing the control means in a single ‘master’
12 module, it is possible to control all the other ‘slave’ modules simultaneously.”
13 *Huout* at [0015]

14 Thus, Light Therapy Devices with Lead and Follow Operation and Mode Select
15 Switches were well known to a POSITA prior to the to the filing of the '385 priority
16 application. *See* Ex. A-11.

17 A POSITA looking to develop a light-based therapy device would look to this
18 established art and its teachings of control system implementation. As discussed, the
19 '385 priority application attempts to address shortcomings of the prior art PMB with
20 respect to the inadequate size requiring multiple sessions. Many prior art references
21 cited herein address this same problem by disclosing systems using multiple devices
22 to allow for increased treatment area size. *See supra*. Because increased treatment
23 area size requires multiple light devices to be controlled to provide the sought-after
24 treatment, a POSITA would look to the centralized techniques of controlling power
25 input, lead and follow operation, and switching taught by the prior art discussed
26 above. The desire for a multi-device system would motivate a POSITA to look for
27 simple control implementation which would lead the POSITA to consider the
28 centralized master-slave control technique long used in light system design. These

1 control techniques have long been known in the light control art and would be
2 within the skilled artisan's design choice toolbox. Moreover the skilled artisan
3 would be aware of differing methods to do so, including physical mode switches or
4 software-based switching for general purpose computer control. These types of
5 solution are plentiful in the prior art to which the POSITA would look in evaluating
6 design choices.

7 ***Light Therapy Devices with Sidewall that are Configured to Physically***
8 ***Contact.*** Light therapy devices with sidewalls that are configured to physically
9 contact were well know before the priority date of the '635 patent application. Early
10 prior art discloses light therapy devices with multiple panels configured to
11 physically contact at the sidewalls of the panel. In particular, as early as 2005,
12 *Larsen* disclosed a five-panel array connected at the sidewalls. "Several applicators
13 13 are flexibly connected to each other through hinges 10, respectively connecting
14 one edge with the other, whereby the applicators are suitable for the treatment of for
15 example, the backs of humans and so become adjustable for an equidistant
16 positioning of the applicators 13 above the skin." *Larsen* at [0072]; *see also* Fig.1.
17 *Sullivan* discloses two panels connected on the sidewalls to form a folding light
18 therapy bed. *See Sullivan* at [0060]; Fig. 5. *Vargas* (Fig 1, 2) and *Teergardin* (Fig.
19 1B) similarly discloses a folding light therapy bed where the two halves are
20 connected and in physical contact along the sidewalls. Numerous references disclose
21 multiple light panels connected to each other with hinges such that the panels are
22 configured to physically contact that the sidewall and, when opened fully, do in fact
23 physical contact at the sidewalls. *See* Ex. A-11.

24 Finally, the prior art is replete with examples of PBM light therapy panels that
25 are in physical contact and are connected at the sidewall. For example, *McDaniel*
26 discloses a "a multi-paneled device having an array of LED's" for the "facial
27 application" for the treatment of "acne bacteria." *McDaniel* at 4:61-64; Fig. 14. The
28 LED panels are connected and "fabricated in a manner that permits even exposure of

1 tissue infected with or otherwise containing acne bacteria.” *Id.* at 59-61. Thus,
2 *McDaniel* teaches that when panels are physically contacted and connected at the
3 sidewalls, the light coverage is greater and the treatment area is expanded.

4 *Houot* discloses wearable plurality of portable light therapy modules. *Houot* at
5 [0034]. The modules employ a “releasable mechanical connection of the
6 magnetization type in order to form a removable magnetic connection between the
7 modules 12. In a preferred embodiment, the magnetic links are also electrically
8 conductive. Consequently, the use of the equipment 10 will be limited to assembling
9 the modules 12 together by magnetization without requiring additional electrical
10 connections.” *Id.* at [0036]. “[T]he modules are able to exchange data by data
11 communication means and in which the control module comprises means for storing
12 another predefined processing program and means for communicating the other
13 program to the control means of the other modules.” *Id.* at [0024]. This
14 communication can be “the master-slave type. By centralizing the control means in a
15 single ‘master’ module, it is possible to control all the other ‘slave’ modules
16 simultaneously.” *Id.* at [0015]. Thus, *Houot* teaches modules with physically
17 connected sidewalls where the sidewall connection also facilitates electrical
18 conduction and communication among the modules.

19 KR’354 discloses a “skin ray irradiator is used to treat or prevent diseases by
20 stimulating the human body with low output light energy of various wavelength
21 bands and is mainly used for skin beauty such as acne, black spot, spots, pigmented
22 lesions.” KR’354 discloses a three-panel skin treatment device where the sidewalls
23 of the panels are in physical contact and are removeable connected. the treatment
24 device “can be used as a tunnel type skin treatment device by simply attaching the
25 upper part of the treatment device, the left side of the treatment device, and the right
26 side of the treatment device.” Moreover, the connected sidewalls can utilize magnets
27 to ensure” to ensure that there is no gaps and that [the panels are] well connected.”
28

1 *Boyajian* discloses a light therapy device that “uses a plurality of panels,
2 wherein at least one panel is of a different width than the other panels. This panel is
3 positioned between two other panels and, in a way, acts as a “lighted hinge” to
4 provide enough “fill-in” light to reduce or eliminate the optical dead spaces when
5 the panels are bent into a certain configuration. Preferably, five panels in total are
6 used to provide for an optimal increase in the total size of possible treatment areas.”
7 *Boyajian* at 2:62-3:3. In particular, *Boyajian* discloses that the panels “are rotatably
8 connected by hinges 50. The hinges 50 may take the form of nested hinges, which
9 may include hinges that substantially reduce or eliminate optical dead spaces.” *Id.*
10 at 4:44-47. *Boyajian* teaches that by connecting the panels, such that “the outside
11 vertical edges of adjoining panels to be positioned closer to one another. By spacing
12 the vertical edges of adjoining panels closer, optical dead spaces may be further
13 reduced or eliminated.” *Id.* at 5:5-9. *Boyajian* discloses that the elimination of
14 optical dead space is a goal achieved by connecting the sidewalls of the light panels
15 in a multi-panel therapy system. *Id.* Thus, Light Therapy Devices with Sidewall that
16 are Configured to Physically Contact were well known to a POSITA prior to the to
17 the filing of the '385 priority application. *See* Ex. A-11.

18 A POSITA seeking to develop a light-based therapy device would look to and
19 draw motivation from this established art and its teachings to connect multiple
20 panels to increase treatment size and decrease the requirement of multiple sessions.
21 By connecting and putting the physical panels in direct contact, this state goal of the
22 '495 patent is achieved. In particular, the '385 priority application attempts to
23 address shortcomings of the prior art PMB with respect to the inadequate size
24 requiring multiple sessions. Many prior art references cited herein address this same
25 problem. Using multiple light devices creates the potential for dead optical space
26 and reduced treatment size. A POSITA would attempt to solve this issue by utilizing
27 the teachings of prior art discussed above that arranges the several devices in
28 physical contact. For example, *Boyajian* teaches a five panel system with "lighted

1 hinge" to reduce or eliminate optical dead spaces between adjacent panels when the
2 illuminator is bent into a certain configuration." *Boyajian* at Abstract. Indeed,
3 treatment size isn't the only motivation for physically contacting the light devices.
4 Through physical contact, electrical and control signals can be transmitted to
5 establish simplified centralized control such as taught in *Huout*. Because these
6 references seek to solve the same problem discussed in the '385 priority application,
7 a POSITA would be motivated to consult these references for inspiration, teachings
8 and general art in the field of light therapy devices with sidewall that are configured
9 to physically contact.

10 Defendant incorporates by reference prior art from the prosecution histories
11 and background sections of the '495 patent. Defendant expects to rely on the
12 testimony of one or more expert witnesses and documents referenced by those
13 expert witnesses in support of these contentions and incorporate those forthcoming
14 expert reports as if fully set forth herein.¹

15 Defendant contends that there are no secondary considerations of non-
16 obviousness evidencing the validity of any of the asserted claims. Secondary
17 considerations of non-obviousness, also referred to as objective indicia of non-
18 obviousness, "can include copying, long felt but unsolved need, failure of others,
19 commercial success, unexpected results created by the claimed invention,
20 unexpected properties of the claimed invention, licenses showing industry respect
21 for the invention, awards or other industry praise for the invention, and skepticism
22 of skilled artisans before the invention." *Power Integrations, Inc. v. Fairchild*
23 *Semiconductor Int'l, Inc.*, 711 F.3d 1348, 1368 (Fed. Cir. 2013). "A nexus between
24 the merits of the claimed invention and evidence of secondary considerations is
25 required in order for the evidence to be given substantial weight in an obviousness
26 decision." *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 668 (Fed. Cir. 2000). Moreover,

27
28 ¹ All such expert reports and testimony will be produced and provided pursuant to the
applicable deadlines in the Court's Scheduling Order (ECF #034).

1 even if a nexus exists, secondary considerations of non-obviousness “simply cannot
2 overcome [a] strong prima facie showing of obviousness.” *Sundance, Inc. v.*
3 *DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1368 (Fed. Cir. 2008). Plaintiff has not
4 established the existence of any objective indicia of non-obviousness or secondary
5 considerations. Defendant reserves the right to supplement their contentions to
6 respond to any such evidence should Plaintiff identify any. While discovery in this
7 case is ongoing, and Defendant’s investigation continues (which will include expert
8 discovery), to the extent Plaintiff contends that one or more asserted claims is not
9 obvious based on secondary considerations recognized by relevant authority,
10 Defendant contends such allegations are without merit. For example, Plaintiff has
11 provided no evidence of copying of the purported inventions of the asserted claims.
12 Similarly, Plaintiff has provided no evidence of any failure of others to realize any
13 purported inventions of the asserted claims, or any evidence of any long felt but
14 unsolved need solved by the purported inventions of the asserted claims. *Id.* To the
15 contrary, the lack of novelty and widespread availability of PMB light therapy
16 devices as demonstrated by the prior art is contrary evidence of any long-felt need
17 for the purported inventions of the asserted claims.

18 Plaintiff also has not identified any evidence that the purported inventions of
19 the asserted claims have enjoyed any commercial success. To the extent that
20 Plaintiff claims that sales of any accused products constitutes commercial success,
21 Plaintiff has not identified any evidence of any nexus between the claimed invention
22 and such alleged commercial success. Moreover, any commercial success of the
23 accused products may be due to factors other than the merits of the asserted claims,
24 including non-patented features or functionalities, marketing efforts or other
25 financial or economic incentives related to the sale or distribution of the accused
26 products. Plaintiff also has provided no evidence of unexpected results or
27 unexpected properties in the purported inventions of the asserted claims. *Id.*
28 Additionally, there is no evidence of any licenses showing industry respect for the

1 purported inventions of the asserted claims, and also no evidence of any awards or
2 other industry praise for any purported inventions of the asserted claims. Finally,
3 Plaintiff has provided no evidence of any skepticism of skilled artisans prior to
4 purported inventions of the asserted claims; to the contrary, the prior art identified
5 herein establishes not only a lack of skepticism but an appreciation that the
6 purported inventions of the asserted claims were known to those of skill in the art.

7 **B. Other Invalidity Grounds**

8 Defendant hereby identify grounds of invalidity based on (1) lack of written
9 description under 35 U.S.C. § 112, first paragraph (pre-AIA); (2) lack of enablement
10 under 35 U.S.C. § 112, first paragraph (pre-AIA); (3) indefiniteness under 35 U.S.C.
11 § 112, second paragraph (pre-AIA), and (4) lack of patentable subject matter under
12 35 U.S.C. § 101. These contentions shall not be construed as an admission that any
13 claim construction advanced by Defendant in this case is in any way inconsistent,
14 flawed, or erroneous. Nor should these contentions prevent Defendant from
15 advancing claim construction and/or non-infringement positions in lieu of, or in
16 addition to, invalidity positions. Further, these contentions shall not be construed as
17 an admission of or acquiescence to Plaintiff's purported construction of the claim
18 language or of other positions advanced by complainant during the course of this
19 litigation. Defendant's Invalidity Contentions under 35 U.S.C. § 112 may depend, in
20 part, on the Court's claim construction, as well as Plaintiffs' alleged scope of the
21 '495 Asserted Claims. Consequently, Defendant only identifies the issues under 35
22 U.S.C. § 112 of which it is presently aware.

23 **1. Enablement and/or Written Description Pursuant to 35** 24 **U.S.C. 112**

25 The '495 patent does not provide sufficient written description to establish
26 that the alleged inventors were in possession of the alleged inventions recited in
27 certain of the Asserted Claims at the time the '495 patent was filed. *Ariad Pharms.,*
28 *Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). In other words, the

1 applicants did not describe their purported inventions in a manner that “reasonably
2 conveys to those skilled in the art that the inventor had possession of the claimed
3 subject matter as of the filing date.” *Id.* The specification of the ’495 patent also
4 does not enable one of ordinary skill in the art to make and/or use certain recited
5 elements of the ’495 Asserted Claims without undue experimentation.

6 To the extent the following limitations are definite (under 35 U.S.C. § 112,
7 second paragraph), the ’495 patent fails to sufficiently describe or enable them as
8 required by 35 U.S.C. § 112, first paragraph:

9 “configured to operate in at least one of a lead mode and a follow mode”
10 (claim 1, 22)

11 “a first switch configured to select at least one of the lead mode and the
12 follow mode” (claim 1, 22)

13 “performs operations as instructed” (claim 1, 22s)

14 “the sidewall of the first housing is configured to physically contact the
15 sidewall of the second housing” (claim 1)

16 “coupled to a side surface” (claim 10)

17 “communicatively coupled to the first input button” (claim 11)

18 “physically contacts the sidewall” (claim 21)

19 **2. Indefiniteness Pursuant to 35 U.S.C. 112,**

20 Several of the ’495 Asserted Claims are invalid because they fail to inform
21 those skilled in the art about the scope of the alleged invention with reasonable
22 certainty and are indefinite under 35 U.S.C. § 112, second paragraph, for failing to
23 particularly point out and distinctly claim the subject matter the applicants regard as
24 their alleged invention.

25 Certain Asserted Claims of the ’495 patent are invalid as indefinite due to the
26 following limitations which fail to inform, with reasonable certainty, those skilled in
27 the art about the scope of the invention:

28 “configured to operate in at least one of a lead mode and a follow mode”

1 (claim 1, 22)

2 “a first switch configured to select at least one of the lead mode and the
3 follow mode” (claim 1, 22)

4 “performs operations as instructed” (claim 1, 22s)

5 “the sidewall of the first housing is configured to physically contact the
6 sidewall of the second housing” (claim 1)

7 “coupled to a side surface” (claim 10)

8 “communicatively coupled to the first input button” (claim 11)

9 “physically contacts the sidewall” (claim 21)

10 **IV. U.S. PATENT NO. 10,828,505**

11 **A. Relevant Prior Art**

12 Defendant contends that the prior art references identified in Defendant’s
13 contentions anticipate or render obvious the asserted claims of the ’505
14 patent. Based on the information reasonably available to Defendant, the priority date
15 of the asserted claims of the ’505 patent is no earlier than February 17, 2017, the
16 filing date of provisional application 62/460,113. The ’505 patent disclosure relates
17 to “a light source for use in therapy, and more particularly for treating a large
18 external surface of a patient with an easy to use hanging apparatus so the light
19 source is adjustable.” 1:6-9. “Specifically, red light therapy (RLT) involves having
20 red or near infrared (NIR) light wavelengths emitted directly through the skin. Red
21 or NIR light can be absorbed into the skin to a depth of about eight to 10
22 millimeters, at which point it has positive effects on cellular energy and multiple
23 nervous system and metabolic processes.” 1:10-15

24 The ’505 patent observes that the prior art techniques “are designed for
25 desktop use or are complete chambers which the user enters. The vast majority of
26 RLT devices on the market are either hand-held (very small treatment area) or a
27 countertop unit that treats the face. Tanning salons offer red light treatment sessions
28 in converted tanning beds using fluorescent circuits but the cost and size make these

1 devices impractical for home use. In addition, the fluorescent circuits are very
2 inefficient so the intensity of the light compromises the effectiveness of these
3 devices.” 1:22-31. The ‘505 patent notes that “what is needed and heretofore lacking
4 in prior light therapy solutions is a lighting apparatus that can be easily adjusted to
5 the desired height of the user to expose the desired area to the red-light therapy.”

6 Below, Defendant lists some of the prior art cited in these contentions:

7 3. Patents and Printed Publications

8 Bates Number Begin	Bates Number End	Prior Art Reference
9 MRL00004067	MRL00004081	DE7638568U1
10 MRL00004082	MRL00004089	DE202012012004U1
11 MRL00004090	MRL00004104	DE7638568U1
12 MRL00004105	MRL00004109	English Translation of DE763856
13 MRL00004110	MRL00004116	CN205924721U
14 MRL00004117	MRL00004121	English Translation of CN205924721U U
15 MRL00004122	MRL00004139	FR2917299A1
16 MRL00004140	MRL00004149	K5 BOOK WEB 2016 new
17 MRL00004150	MRL00004182	Mouser Racks and enclosures
18 MRL00004183	MRL00004186	US1617028
19 MRL00004187	MRL00004201	US4095113
20 MRL00004202	MRL00004208	US4844069
21 MRL00004209	MRL00004216	US5733032
22 MRL00004217	MRL00004229	US5996728
23 MRL00004230	MRL00004244	US6896693
24 MRL00004245	MRL00004292	US9227082
25 MRL00004293	MRL00004307	US10064940
26 MRL00004308	MRL00004322	US10363434
27 MRL00004323	MRL00004341	US20040008523A1
28 MRL00004342	MRL00004351	US20070129777A1
MRL00004352	MRL00004373	US20120104977A1
MRL00004374	MRL00004384	US20120170264A1
MRL00004385	MRL00004393	US20150307332A1
MRL00004394	MRL00004405	US20160278304A1
MRL00004406	MRL00004436	US20190282826A1
MRL00004437	MRL00004479	CA3059989A1
MRL00004480	MRL00004492	EP2923728A1
MRL00004493	MRL00004505	EP2923728A1

1	Bates Number Begin	Bates Number End	Prior Art Reference
2	MRL00004506	MRL00004516	English Translation of EP2923728
3	MRL00004517	MRL00004532	English Translation of FR3014322B1
4	MRL00004533	MRL00004548	EP1664621B1
5	MRL00004549	MRL00004564	EP3001777A1
6	MRL00004565	MRL00004570	EP3232740B1
7	MRL00004571	MRL00004597	KR101715102B1
8	MRL00004598	MRL00004619	KR200488956Y1
9	MRL00004620	MRL00004641	KR200489354Y1
10	MRL00004642	MRL00004649	KR20090055891A
11	MRL00004650	MRL00004655	English translation of KR20090055891
12	MRL00004656	MRL00004664	KR20100009542U
13	MRL00004665	MRL00004672	English Translation of KR20100009542U
14	MRL00004673	MRL00004682	US3648706
15	MRL00004683	MRL00004799	US6166496
16	MRL00004800	MRL00004835	US7932482
17	MRL00004836	MRL00004846	US8425577
18	MRL00004847	MRL00004864	US9314302
19	MRL00004865	MRL00004883	US9491833
20	MRL00004884	MRL00004900	US9526860
21	MRL00004901	MRL00004921	US9533170
22	MRL00004922	MRL00004936	US10589122
23	MRL00004937	MRL00004988	US10632325
24	MRL00004989	MRL00005068	US10881550
25	MRL00005069	MRL00005112	US11058889
26	MRL00005113	MRL00005143	US11141219
27	MRL00005144	MRL00005180	US11395925
28	MRL00005181	MRL00005193	US20020198575A1
	MRL00005194	MRL00005203	US20040068305A1
	MRL00005204	MRL00005220	US20050075703A1
	MRL00005221	MRL00005235	US20060229689A1
	MRL00005236	MRL00005260	US20070217199A1
	MRL00005261	MRL00005326	US20100121420A1
	MRL00005327	MRL00005339	US20110054573A1
	MRL00005340	MRL00005357	US20140071681A1
	MRL00005358	MRL00005384	US20150112411A1
	MRL00005385	MRL00005392	US20150134032A1
	MRL00005393	MRL00005411	US20150224332A1
	MRL00005412	MRL00005426	US20180008839A1
	MRL00005427	MRL00005436	US20180296854A1

Bates Number Begin	Bates Number End	Prior Art Reference
MRL00005437	MRL00005459	US20190030359A1
MRL00005460	MRL00005487	US20190142636A1
MRL00005488	MRL00005690	US20190201711A1
MRL00005691	MRL00005716	US20190269934A1
MRL00005717	MRL00005733	US20200001105A1
MRL00005734	MRL00005779	US20200269065A1
MRL00005780	MRL00005823	US20200360714A1
MRL00005824	MRL00005828	USD679440
MRL00005829	MRL00005839	CN108187235A
MRL00005840	MRL00005848	English Translation of CN108187235A
MRL00005849	MRL00005854	CN200963440Y
MRL00005855	MRL00005861	CN204364686U
MRL00005862	MRL00005868	CN204364686U
MRL00005869	MRL00005869	English Translation of Abstract of CN204364686U
MRL00005870	MRL00005878	DE202016101699U1
MRL00005879	MRL00005884	English Translation of DE202016101699U1
MRL00005885	MRL00005947	US20050085875A1
MRL00005948	MRL00005985	US20080269849A1
MRL00005986	MRL00006015	WO2017066270A1
MRL00006016	MRL00006079	English Translation of EP3490671A1
MRL00006080	MRL00006103	English Translation of KR101715102B1
MRL00006104	MRL00006117	English Translation of KR200488956Y1

Moreover, Defendant hereby incorporates by reference all the references cited during the prosecution of the '505 patent and those references that appear on the face of the '505 patent.

B. Anticipation and Obviousness

Defendant attaches Exhibits B-1 to B-8, which provide exemplary disclosures showing how the prior art anticipates and/or renders obvious the asserted claims of the '505 patent. These charts identify primary references, and in some cases, secondary references, and obviousness contentions. Defendant may rely on any of the primary references identified in Exhibits B-1 to B-7 in combination with any reference identified in those exhibits in combination with any reference identified in those exhibits and Exhibit B-8. Defendant's anticipation contentions are presented in

the following exhibits, each of which describes anticipation of claim one of the '505 patent by a primary reference:

Exhibit	Primary Reference
B-1	US20190282826A1 to Bellini ("Bellini")
B-2	US20070129777A1 to Bolta ("Bolta")
B-3	US 20040008523 to Butler ("Butler")
B-4	Kind LED Grow Lights, "KS Series Instructions" ("K5 Series")
B-5	US20120170264A1 to McKenzie ("McKenzie")
B-6	US1617028A to Rekar ("Rekar")
B-7	DE7638568U1 to Scharwachter ("Scharwachter")
B-8	US4095113A to Wolff ("Wolff") US10363434 to Marchese ("Marchese") US5996728 Stark ("Stark") US 20150307332 to Huang ("Huang") Mouser Electronics, "Enclosures and Racks, http://www.mouser.com/catalog/catalogusd/648/dload/pdf/ENCLOSURE.pdf , ("Mouser") US20160278304A1 to Elsegood ("Elsegood") DE202016101699U1 to Grimm ("Grimm")

Defendant's obviousness contentions are also contained in Exhibits B-1 to B-8.

The U.S. Supreme Court in *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007) emphasized that inventions arising from ordinary innovation, ordinary skill, or common sense should not be patentable. *Id.* at 1732, 1738, 1742-1743, 1746. A patent claim may be obvious if the combination of elements was obvious to try or if there existed at the time of the invention a known problem for which there was an obvious solution encompassed by the patent's claims. When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, Section 103 of Title 35 likely bars its

1 patentability. *Id.* at 1740. The Court stated that courts should “look to interrelated
2 teachings of multiple patents; the effects of demands known to the design
3 community or present in the marketplace; and the background knowledge possessed
4 by a person having ordinary skill in the art, all in order to determine whether there
5 was an apparent reason to combine the known elements in the fashion claimed by
6 the patent at issue.” *Id.* at 1740-41. *KSR* does not mandate evidence of a motivation
7 or suggestion to combine prior art references. *See TGIP, Inc. v. AT&T Corp.*, 527 F.
8 Supp. 2d 561, 580-81 (E.D. Tex. 2007). “[A] court can take account of the
9 inferences and creative steps that a person of ordinary skill in the art would employ”
10 to resolve the question of obviousness. *KSR*, 127 S. Ct. at 1741.

11 Based on all of these considerations, as further detailed in Exhibits B-1 to B-
12 8, persons of ordinary skill in the art would have combined the teachings of the prior
13 art references discussed and charted in those exhibits with teachings from the same
14 reference, with the knowledge of a person of skill in the art, and/or with teachings
15 from other prior art references as disclosed in Exhibits B-1 to B-8. The combinations
16 of these references would have rendered obvious to one of ordinary skill in the art
17 the subject matter of the asserted claims of the ’505 patent. The references identified
18 in Exhibits B-1 to B-8 are analogous prior art to the subject matter of the asserted
19 claims and, for at least the reasons set forth below, are properly combinable.

20 Because these prior art references exist within a single field of art, particularly one
21 in which individuals in the field often shared and/or collaborated on their work, it
22 would have been obvious for a person of skill in the art to look from one piece of
23 prior art to another in order to find any missing functionality they desired to
24 implement. Therefore, these references provide interrelated teachings and one of
25 ordinary skill would look to the concepts in any of these references when seeking to
26 solve the problems purportedly addressed by the ’505 patent.

27 Numerous prior art references, including those identified in the attached
28 exhibits, reflect common knowledge and the state of the prior art before the earliest

1 claimed effective filing date of the '505 patent. As it would be unduly burdensome
2 to create detailed claim charts for all of the invalidating combinations, for at least
3 the reasons described in these invalidity contentions, it would have been obvious to
4 one of ordinary skill in the art to combine any of a number of prior art references,
5 including any combination of those identified in the attached exhibits, to meet the
6 limitations of the asserted claims of the '505 patent. Defendant's inclusion of
7 exemplary combinations, in view of the factors and motivations identified here, does
8 not preclude Defendant from identifying other invalidating combinations and/or
9 motivations as appropriate.

10 No showing of a specific motivation to combine prior art is required to
11 combine the references disclosed above and in the attached charts, because each
12 combination of art would have no unexpected results, and at most would simply
13 represent a known alternative to one of ordinary skill in the art. *See KSR*, 127 S. Ct.
14 at 1739-40 (rejecting the Federal Circuit's "rigid" application of the teaching,
15 suggestion, or motivation to combine test, instead espousing an "expansive and
16 flexible" approach). Indeed, the Supreme Court held that a person of ordinary skill
17 in the art is "a person of ordinary creativity, not an automaton" and "in many cases a
18 person of ordinary skill in the art will be able to fit the teachings of multiple patents
19 together like pieces of a puzzle." *Id.* at 1742. Nevertheless, in addition to the
20 information contained herein, Defendant hereby identifies additional motivations
21 and reasons to combine the cited art.

22 One or more combinations of the prior art references identified herein, with
23 itself, the knowledge of one of skill in the art, or with other references, would have
24 been obvious because these references would have been combined using: known
25 methods to yield predictable results; known techniques in the same way; a simple
26 substitution of one known, equivalent element for another to obtain predictable
27 results; and/or a teaching, suggestion, or motivation in the prior art generally. In
28 addition, it would have been obvious to combine the prior art references identified

1 above because there were only a finite number of predictable solutions and/or
2 because known work in one field of endeavor prompts variations based on
3 predictable design incentives and/or market forces either in the same field or a
4 different one. In addition, the combinations of the prior art references identified
5 above would have been obvious because the combinations represent the known
6 potential options with a reasonable expectation of success.

7 Additional evidence that there would have been a motivation or reason to
8 combine the prior art references identified above includes the interrelated teachings
9 of multiple prior art references; the effects of demands known to the design
10 community or present in the marketplace; the existence of a known problem for
11 which there was an obvious solution; the existence of a known need or problem in
12 the field of endeavor at the time of the invention; and the background knowledge
13 that would have been possessed by a person having ordinary skill in the art. For
14 example, the prior art references are generally directed to the same problems. Thus,
15 a skilled artisan seeking to solve these problems would look to these cited references
16 in combination.

17 Thus, the motivation or reason to combine the teachings of the prior art
18 references disclosed herein is found in the references themselves and in: (1) the
19 nature of the problems being solved; (2) the express, implied, and inherent teachings
20 of the prior art; (3) the knowledge of persons of ordinary skill in the art; (4) the fact
21 that the prior art is generally directed towards the same problems; and/or (5) the
22 predictable results obtained in combining the different elements of the prior art; (6)
23 the use of a known technique to improve similar devices, methods, or products in the
24 same way; (7) the predictable results obtained in applying a known technique to a
25 known device, method, or product ready for improvement; (8) the finite number of
26 identified predictable solutions that had a reasonable expectation of success; and (9)
27 known work in various technological fields that could be applied to the same or
28 different technological fields based on design incentives or other market forces.

1 It would have been obvious to combine any of the prior art in Exhibits B-1 to
2 B-8 because all of these references relate to devices and methods with limitations
3 that were well known to the skilled artisan prior to the '113 application.

4 A wide variety of techniques were known to the skilled artisan in the
5 development of light therapy systems prior to the filing of the '113 priority
6 application. In particular, as discussed below, each of the limitations of claim one of
7 the '505 patent were known to the skilled artisan and available in the artisan's
8 "toolbox." Indeed, it would be simply a matter of design choice to draw from these
9 known techniques and combine them to render the asserted claim invalid.

10 ***Light Therapy Systems Using Red and Near Infrared (NIR) Light for***
11 ***Therapeutic Applications.*** Light therapy systems with communicatively coupled
12 light devices, such as panels or light arrays, for were well known in the art for some
13 time. The physical benefits of light therapy, or photobiomodulation ("PBM") were
14 studied extensively prior to the priority application for the '113 patent. Many
15 publications and patents described these systems, their purposes, controls and other
16 features in detail. Only some of those patents and publications are discussed here.

17 The patent itself recognizes that prior art existence of red-light therapy and its
18 benefits, noting "red light therapy (RLT) involves having red or near infrared (NIR)
19 light wavelengths emitted directly through the skin. Red or NIR light can be
20 absorbed into the skin to a depth of about eight to 10 millimeters, at which point it
21 has positive effects on cellular energy and multiple nervous system and metabolic
22 processes. Red light therapy has shown promise for treating symptoms of joint pain
23 or osteoarthritis due to aging, those caused by cancer treatments like chemotherapy
24 or radiation, hair loss, wounds or incisions, acne, wrinkles and skin discoloration,
25 chronic muscular pain, neurological damage, and tissue damage (often at the root of
26 tears, sprains or pulls)." 1:10-22.

27 Early prior art disclosed light treatment apparatus and extensively discussed
28 the benefits of PBM. *Bellini* discloses "a configurable phototherapeutic device or

1 system. The phototherapeutic device or system comprises a plurality of light
2 emitting devices adaptably connected to one another or to a support structure. The
3 plurality of light emitting devices is configured for providing concurrent
4 phototherapy to a plurality of anatomical features of a subject. The configurable
5 phototherapeutic device or system also comprises a central controller which is
6 operatively connected to the light emitting devices and each one of the light emitting
7 devices being communicatively connected to the central controller. The central
8 controller is configured for selectively causing at least one of the light emitting
9 devices to emit light for phototherapy of at least one anatomical feature of the
10 subject.” *Bellini at Abstract. See Ex. B-5 at limitation 1[b]*. The benefits of red light
11 were well known for its therapeutic properties well before the filing of the ‘113
12 priority application.

13 A POSITA seeking to develop a light-based therapy device would look to and
14 draw motivation from this established art and its teachings to incorporate red light.
15 As discussed above, these wavelengths of light have long been known to provide
16 healing benefits for all types of ailments. A POSITA would be acutely aware of the
17 healing properties of red light would utilizes these wavelengths for those properties
18 as a design choice dependent of the condition the POSITA seeks to treat.

19 Moreover the ‘113 priority application attempts to address shortcomings of
20 the prior art PMB with respect to easily adjusting “the lighting apparatus to the
21 desired height to expose the desired area.” 1:34-35. Many prior art references cited
22 herein address this same problem. For example, *Rekar, Scharwaechter, Bellini, K5,*
23 *Butler, Wolff, Stark and Grimm* all disclose apparatus for adjusting the height of a
24 lighting apparatus to optimize treatment. Because these references seek to solve the
25 same problem discussed in the ‘113 priority application, a POSITA would be
26 motivated to consult these references for inspiration, teachings and general art in the
27 field of Light Therapy Systems Using Red Light.

28 To the extent a reference does not disclose the use of phototherapy and Red

1 Light in particular, a POSITA would look to analogous lighting art for design
2 choice. For example, *K5 series* and *McKenzie* disclose grow lights to solve that
3 same stated problem as the '505 patent. One of skill would be aware of and look to
4 this analogous art for design choice for controlling the adjustment of the lighting
5 apparatus.

6 ***Hollow Housing for Containing LEDs.*** Hollow housing designs for
7 containing LED light devices were also well known in the art. For example, *Bellini*
8 discloses a “housing 312 may be implemented in any suitable way, taking on any
9 suitable shape. The housing 312 comprises a periphery 314 which includes a top
10 surface 315, a bottom surface 311, and lateral surfaces 317 1-317 4. For example, in
11 some embodiments, the housing 312 may take on the shape of a rectangular box
12 with a length, a width, and a height, where the magnitude of the length is larger than
13 the magnitude of the width.” *Bellini* at [0087]. *K5 series* disclose a similar
14 rectangular hollow housing member with openings for LED lights. See Ex. B-4 at
15 limitation 1[a]. Likewise *McKenzie* discloses “a housing 100 with ventilation slots
16 110 allowing for cooling the grow light during operation, and an opening in the
17 housing 100 for accessing a controller 120. The bottom view shows the housing 100
18 and a plurality of LED elements 120 on a grow light surface 130.” *McKenzie* at
19 [0011], Fig1.

20 A POSITA looking to develop a light-based therapy device with height
21 adjustment would look to this established art and its teachings to implement the light
22 device in a hollow housing with openings for the LEDs. One of skill would know
23 that a housing for LEDs could be “implemented in any suitable way, taking on any
24 suitable shape.” *Bellini* at [0087]. The shape and construction are simple design
25 choices that would be well within the knowledge of one of skill. Similarly, creating
26 openings for the LED light to be emitting is also a necessary design choice and step
27 ensure that the LED light is emitting to contact the subject treatment area. *K Series*
28 and *McKenzie* specifically disclose separate openings for each LED.

1 ***Positioning Systems using Posts, Attachment Members, Connection***
2 ***Members and Winching Systems were Well Known.*** A POSITA would be well
3 aware of the numerous design choices for adjusting the height of a light therapy
4 device. For example, very early prior art such as *Butler*, *Rekar* and *Wolff* disclose
5 vertical positioning systems. See Ex. B-3, B-6 and B-11. Most notably, in the
6 analogous grow light art, hanging positioning systems were well known. These
7 design choices, like those disclosed in *K5 series* included post-like attachments to
8 cabling and winching systems exactly as disclosed in the '505 patent. See Ex. B-4.
9 Similarly, post systems were well known for use in attachment. See B-8 at *Stark*.
10 Finally, winching systems for vertical height positioning have long been a standard
11 design choice in the art. See B-8 at *Huang*.

12 As discussed above, numerous techniques for height positioning and
13 adjustment were well known in the art prior to the filing of the '113 priority
14 application. The techniques described in the '505 patent, such as posts with
15 detachable members, connection members and winching systems, were well within
16 the knowledge of one skill and would be simple design choices in the skilled
17 artisans "toolbox." Faced with the stated problem of easy adjustment of height for a
18 lighting device, a POSITA would be motivated to look to these existing techniques.

19 ***End plates with Slots & Openings were Well Known.*** End plates with slots
20 and with openings were well known to a POSITA prior to the filing of the priority
21 '113 application. For example, if a POSITA were to implement the well-known
22 post attachment techniques, such as those taught in *K5 Series* or *Stark*, creating an
23 opening in the end plate would be necessary to allow the post to extend through the
24 housing for attachment to the positioning system. The '505 patent discloses "a
25 plurality of slots to allow for air to enter and/or exit the interior to the central
26 housing," 7:37-38, and teaches that the "ventilation openings may be slots." 6:50-51.
27 *K5 Series*, *Bolta*, *McKenzie*, *Marchese*, *Mouser*, and *Elsegood* all disclose opening
28

1 such as slots to control ventilation and thermal management. These slot ventilation
2 techniques were long known as a method of thermal management.

3 Combining the prior art methods of openings and slots in an end plate would
4 be a simple design choice. A POSITA designing a lighting system would be
5 concerned with thermal management. For examples, *K5 Series*, *Bolta*, *McKenzie*,
6 *Marchese*, *Mouser*, and *Elsegood* all disclose opening such as slots to control
7 ventilation and thermal management. This issue would be a primary concern in any
8 lighting therapy system and creating openings would be a simple design choice for a
9 POSITA to implement. Indeed, thermal management would be a concern and would
10 need to be addressed by a POSITA regardless of the positioning system design
11 chosen. The location of the slots would also be a design choice for the skilled
12 artisan. Similarly, openings in the end plate would also be necessary as a corollary to
13 the post implementation discussed above.

14 Defendant incorporates by reference prior art from the prosecution histories
15 and background sections of the '505 patent. Defendant expects to rely on the
16 testimony of one or more expert witnesses and documents referenced by those
17 expert witnesses in support of these contentions and incorporate those forthcoming
18 expert reports as if fully set forth herein.²

19 Defendant contends that there are no secondary considerations of non-
20 obviousness evidencing the validity of any of the asserted claims. Secondary
21 considerations of non-obviousness, also referred to as objective indicia of non-
22 obviousness, "can include copying, long felt but unsolved need, failure of others,
23 commercial success, unexpected results created by the claimed invention,
24 unexpected properties of the claimed invention, licenses showing industry respect
25 for the invention, awards or other industry praise for the invention, and skepticism
26 of skilled artisans before the invention." *Power Integrations, Inc. v. Fairchild*

27
28 ² All such expert reports and testimony will be produced and provided pursuant to the
applicable deadlines in the Court's Scheduling Order (ECF #034).

1 *Semiconductor Int'l, Inc.*, 711 F.3d 1348, 1368 (Fed. Cir. 2013). “A nexus between
2 the merits of the claimed invention and evidence of secondary considerations is
3 required in order for the evidence to be given substantial weight in an obviousness
4 decision.” *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 668 (Fed. Cir. 2000). Moreover,
5 even if a nexus exists, secondary considerations of non-obviousness “simply cannot
6 overcome [a] strong prima facie showing of obviousness.” *Sundance, Inc. v.*
7 *DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1368 (Fed. Cir. 2008). Plaintiff has not
8 established the existence of any objective indicia of non-obviousness or secondary
9 considerations. Defendant reserves the right to supplement their contentions to
10 respond to any such evidence should Plaintiff identify any. While discovery in this
11 case is ongoing, and Defendant’s investigation continues (which will include expert
12 discovery), to the extent Plaintiff contends that one or more asserted claims is not
13 obvious based on secondary considerations recognized by relevant authority
14 Defendant contends such allegations are without merit. For example, Plaintiff has
15 provided no evidence of copying of the purported inventions of the asserted claims.
16 Similarly, Plaintiff has provided no evidence of any failure of others to realize any
17 purported inventions of the asserted claims, or any evidence of any long felt but
18 unsolved need solved by the purported inventions of the asserted claims. *Id.* To the
19 contrary, the lack of novelty and widespread availability of PMB light therapy
20 devices as demonstrated by the prior art is contrary evidence of any long-felt need
21 for the purported inventions of the asserted claims.

22 Plaintiff also has not identified any evidence that the purported inventions of
23 the asserted claims have enjoyed any commercial success. To the extent that
24 Plaintiff claims that sales of any accused products constitutes commercial success,
25 Plaintiff has not identified any evidence of any nexus between the claimed invention
26 and such alleged commercial success. Moreover, any commercial success of the
27 accused products may be due to factors other than the merits of the asserted claims,
28 including non-patented features or functionalities, marketing efforts or other

1 financial or economic incentives related to the sale or distribution of the accused
2 products. Plaintiff also has provided no evidence of unexpected results or
3 unexpected properties in the purported inventions of the asserted claims. *Id.*
4 Additionally, there is no evidence of any licenses showing industry respect for the
5 purported inventions of the asserted claims, and also no evidence of any awards or
6 other industry praise for any purported inventions of the asserted claims. Finally,
7 Plaintiff has provided no evidence of any skepticism of skilled artisans prior to
8 purported inventions of the asserted claims; to the contrary, the prior art identified
9 herein establishes not only a lack of skepticism but an appreciation that the
10 purported inventions of the asserted claims were known to those of skill in the art.

11 **C. Other Invalidity Grounds**

12 Defendant hereby identifies grounds of invalidity based on (1) lack of written
13 description under 35 U.S.C. § 112, first paragraph (pre-AIA); (2) lack of enablement
14 under 35 U.S.C. § 112, first paragraph (pre-AIA); (3) indefiniteness under 35 U.S.C.
15 § 112, second paragraph (pre-AIA), and (4) lack of patentable subject matter under
16 35 U.S.C. § 101. These contentions shall not be construed as an admission that any
17 claim construction advanced by Defendant in this case is in any way inconsistent,
18 flawed, or erroneous. Nor should these contentions prevent Defendant from
19 advancing claim construction and/or non-infringement positions in lieu of, or in
20 addition to, invalidity positions. Further, these contentions shall not be construed as
21 an admission of or acquiescence to Plaintiff's purported construction of the claim
22 language or of other positions advanced by complainant during the course of this
23 litigation. Defendant's Invalidity Contentions under 35 U.S.C. § 112 may depend, in
24 part, on the Court's claim construction, as well as Plaintiffs' alleged scope of the
25 '505 Asserted Claims. Consequently, Defendant only identifies the issues under 35
26 U.S.C. § 112 of which it is presently aware.

1 **1. Enablement and/or Written Description Pursuant to 35**
2 **U.S.C. 112**

3 The '505 patent does not provide sufficient written description to establish
4 that the alleged inventors were in possession of the alleged inventions recited in
5 certain of the Asserted Claims at the time the '505 patent was filed. *Ariad Pharms.,*
6 *Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). In other words, the
7 applicants did not describe their purported inventions in a manner that “reasonably
8 conveys to those skilled in the art that the inventor had possession of the claimed
9 subject matter as of the filing date.” *Id.* The specification of the '505 patent also
10 does not enable one of ordinary skill in the art to make and/or use certain recited
11 elements of the '505 Asserted Claims without undue experimentation.

12 To the extent the following limitations are definite (under 35 U.S.C. § 112,
13 second paragraph), the '505 patent fails to sufficiently describe or enable them as
14 required by 35 U.S.C. § 112, first paragraph:

15 “attachment posts” (claim 1)

16 “attachment members detachably coupled” (claim 1)

17 “open end” (claim 1)

18 “end plate” (claim 1)

19 “slots” (claim 1)

20 “configured to receive” (claim 1)

21 **2. Indefiniteness Pursuant to 35 U.S.C. 112**

22 Several of the '505 Asserted Claims are invalid because they fail to inform
23 those skilled in the art about the scope of the alleged invention with reasonable
24 certainty and are indefinite under 35 U.S.C. § 112, second paragraph, for failing to
25 particularly point out and distinctly claim the subject matter the applicants regard as
26 their alleged invention.

27 Certain Asserted Claims of the '505 patent are invalid as indefinite due to the
28 following limitations which fail to inform, with reasonable certainty, those skilled in
the art about the scope of the invention:

1 “attachment posts” (claim 1)

2 “attachment members detachably coupled” (claim 1)

3 “open end” (claim 1)

4 “end plate” (claim 1)

5 “slots” (claim 1)

6 “configured to receive” (claim 1)

7 **V. U.S. PATENT NO. 10,478,635**

8 **A. Relevant Prior Art**

9 Defendant contends that the prior art references identified in Defendant’s
10 contentions anticipate or render obvious the asserted claims of the ’635
11 patent. Based on the information reasonably available to Defendant, the priority date
12 of the asserted claims of the ’635 patent is no earlier than October 22, 2018, the
13 filing date of the Application No. 16/167,385 (“the ’385 application”).

14 The ’635 patent “relates to photobiomodulation therapy systems and
15 methods” and describes in the Background that the field of “[p]hotobiomodulation
16 therapy (or light therapy) is a therapeutic technique that uses low-level wavelengths
17 of light to improve health and treat a variety of health conditions, including skin
18 issues, such as wrinkles, scars, and persistent wounds, among many other
19 conditions. Similar to how plants use sunlight to heal and grow, humans and animals
20 are able to harness these wavelengths of light and turn them into cellular energy.
21 This treatment stimulates the body’s natural healing processes.” Col. 1:30-38. It
22 concedes that “there are a number of photobiomodulation therapy devices available
23 on the market” but observes that “many of these devices are too small and require
24 multiple sessions to treat large areas. As a result, there is a need for a
25 photobiomodulation therapy system that can treat several areas in fewer treatments.”
26 *Id.* at 1:39-44. Thus, the ’635 patent proclaims to disclose “a variety of
27 communicatively coupled light therapy systems.”

28 Below, Defendant lists some of the prior art cited in these contentions:

3. Patents and Printed Publications

Bates Number Begin	Bates Number End	Prior Art Reference
MRL00004067	MRL00004081	DE7638568U1
MRL00004082	MRL00004089	DE202012012004U1
MRL00004090	MRL00004104	DE7638568U1
MRL00004105	MRL00004109	English Translation of DE763856
MRL00004110	MRL00004116	CN205924721U
MRL00004117	MRL00004121	English Translation of CN205924721U U
MRL00004122	MRL00004139	FR2917299A1
MRL00004140	MRL00004149	K5 BOOK WEB 2016 new
MRL00004150	MRL00004182	Mouser Racks and enclosures
MRL00004183	MRL00004186	US1617028
MRL00004187	MRL00004201	US4095113
MRL00004202	MRL00004208	US4844069
MRL00004209	MRL00004216	US5733032
MRL00004217	MRL00004229	US5996728
MRL00004230	MRL00004244	US6896693
MRL00004245	MRL00004292	US9227082
MRL00004293	MRL00004307	US10064940
MRL00004308	MRL00004322	US10363434
MRL00004323	MRL00004341	US20040008523A1
MRL00004342	MRL00004351	US20070129777A1
MRL00004352	MRL00004373	US20120104977A1
MRL00004374	MRL00004384	US20120170264A1
MRL00004385	MRL00004393	US20150307332A1
MRL00004394	MRL00004405	US20160278304A1
MRL00004406	MRL00004436	US20190282826A1
MRL00004437	MRL00004479	CA3059989A1
MRL00004480	MRL00004492	EP2923728A1
MRL00004493	MRL00004505	EP2923728A1
MRL00004506	MRL00004516	English Translation of EP2923728
MRL00004517	MRL00004532	English Translation of FR3014322B1
MRL00004533	MRL00004548	EP1664621B1
MRL00004549	MRL00004564	EP3001777A1
MRL00004565	MRL00004570	EP3232740B1
MRL00004571	MRL00004597	KR101715102B1
MRL00004598	MRL00004619	KR200488956Y1
MRL00004620	MRL00004641	KR200489354Y1
MRL00004642	MRL00004649	KR20090055891A

1	Bates Number Begin	Bates Number End	Prior Art Reference
2	MRL00004650	MRL00004655	English translation of KR20090055891
3	MRL00004656	MRL00004664	KR20100009542U
4	MRL00004665	MRL00004672	English Translation of KR20100009542U
5	MRL00004673	MRL00004682	US3648706
6	MRL00004683	MRL00004799	US6166496
7	MRL00004800	MRL00004835	US7932482
8	MRL00004836	MRL00004846	US8425577
9	MRL00004847	MRL00004864	US9314302
10	MRL00004865	MRL00004883	US9491833
11	MRL00004884	MRL00004900	US9526860
12	MRL00004901	MRL00004921	US9533170
13	MRL00004922	MRL00004936	US10589122
14	MRL00004937	MRL00004988	US10632325
15	MRL00004989	MRL00005068	US10881550
16	MRL00005069	MRL00005112	US11058889
17	MRL00005113	MRL00005143	US11141219
18	MRL00005144	MRL00005180	US11395925
19	MRL00005181	MRL00005193	US20020198575A1
20	MRL00005194	MRL00005203	US20040068305A1
21	MRL00005204	MRL00005220	US20050075703A1
22	MRL00005221	MRL00005235	US20060229689A1
23	MRL00005236	MRL00005260	US20070217199A1
24	MRL00005261	MRL00005326	US20100121420A1
25	MRL00005327	MRL00005339	US20110054573A1
26	MRL00005340	MRL00005357	US20140071681A1
27	MRL00005358	MRL00005384	US20150112411A1
28	MRL00005385	MRL00005392	US20150134032A1
	MRL00005393	MRL00005411	US20150224332A1
	MRL00005412	MRL00005426	US20180008839A1
	MRL00005427	MRL00005436	US20180296854A1
	MRL00005437	MRL00005459	US20190030359A1
	MRL00005460	MRL00005487	US20190142636A1
	MRL00005488	MRL00005690	US20190201711A1
	MRL00005691	MRL00005716	US20190269934A1
	MRL00005717	MRL00005733	US20200001105A1
	MRL00005734	MRL00005779	US20200269065A1
	MRL00005780	MRL00005823	US20200360714A1
	MRL00005824	MRL00005828	USD679440
	MRL00005829	MRL00005839	CN108187235A

Bates Number Begin	Bates Number End	Prior Art Reference
MRL00005840	MRL00005848	English Translation of CN108187235A
MRL00005849	MRL00005854	CN200963440Y
MRL00005855	MRL00005861	CN204364686U
MRL00005862	MRL00005868	CN204364686U
MRL00005869	MRL00005869	English Translation of Abstract of CN204364686U
MRL00005870	MRL00005878	DE202016101699U1
MRL00005879	MRL00005884	English Translation of DE202016101699U1
MRL00005885	MRL00005947	US20050085875A1
MRL00005948	MRL00005985	US20080269849A1
MRL00005986	MRL00006015	WO2017066270A1
MRL00006016	MRL00006079	English Translation of EP3490671A1
MRL00006080	MRL00006103	English Translation of KR101715102B1
MRL00006104	MRL00006117	English Translation of KR200488956Y1

Moreover, Defendant hereby incorporates by reference all the references cited during the prosecution of the '635 patent and those references that appear on the face of the '635 patent.

B. Anticipation and Obviousness

Defendant attaches Exhibits C-1 to C-11, which provide exemplary disclosures showing how the prior art anticipates and/or renders obvious the asserted claims of the '635 patent. These charts identify primary references, and in some cases, secondary references, and obviousness contentions. Defendant may rely on any of the primary references identified in Exhibits C-1 to C-10 in combination with any reference identified in those exhibits in combination with any reference identified in those exhibits and Exhibit C-11. Defendant's anticipation contentions are presented in the following exhibits, each of which describes anticipation of one or more claims of the '635 patent by a primary reference:

Exhibit	Primary Reference
C- 1	US10589122B2 to Boyajian ("Boyajian")
C- 2	US 2020/0269065 to ("Broeng")
C- 3	US 2019/0030359 to Dijkstra ("Dijkstra")

C- 4	US 2006/0229689 to Ferguson (“Ferguson”)
C- 5	US 2018/0008839 to Hamid (“Hamid”)
C- 6	EP2923728A1 to Huout (“Huout”)
C- 7	US 10632325 to Lim (“Lim”)
C- 8	US 2011/0054573 to Mitchell (“Mitchell”)
C- 9	US 2002/0198575 to Sullivan (“Sullivan”)
C- 10	US 8425577 to Vargas (“Vargas”)
C- 11	US 2020/0360714 to Shterzer (“Shterzer”) US 2011/0054573 to Adam (“Adam”) US 2015/0112411 to Beckman (“Beckman”) US 7932482 to Norwood (“Norwood”) US 2014/0071681 to Ghafoori (“Ghafoori”) US 2014/0071681 to Schwarz (“Schwarz”) EP 3232740B1 to Bevilacqua (“Bevilacqua”) US 3648706 to Holzer (“Holzer”) US 9314302 to Dougal (“Dougal”) US 9533170 to Dye (“Dye”) US 2019/0201711A1 to Brawn (“Brawn”) US 20050075703A1 to Larsen (“Larsen”) KR 200489354Y1 (“KR’354”)

Defendant’s obviousness contentions are also contained in Exhibits C-1 to C-11.

The U.S. Supreme Court in *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007) emphasized that inventions arising from ordinary innovation, ordinary skill, or common sense should not be patentable. *Id.* at 1732, 1738, 1742-1743, 1746. A patent claim may be obvious if the combination of elements was obvious to try or if there existed at the time of the invention a known problem for which there was an obvious solution encompassed by the patent’s claims. When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, Section 103 of Title 35 likely bars its patentability. *Id.* at 1740. The Court stated that courts should “look to interrelated teachings of multiple patents; the effects of demands known to the design

1 community or present in the marketplace; and the background knowledge possessed
2 by a person having ordinary skill in the art, all in order to determine whether there
3 was an apparent reason to combine the known elements in the fashion claimed by
4 the patent at issue.” *Id.* at 1740-41. *KSR* does not mandate evidence of a motivation
5 or suggestion to combine prior art references. *See TGIP, Inc. v. AT&T Corp.*, 527 F.
6 Supp. 2d 561, 580-81 (E.D. Tex. 2007). “[A] court can take account of the
7 inferences and creative steps that a person of ordinary skill in the art would employ”
8 to resolve the question of obviousness. *KSR*, 127 S. Ct. at 1741.

9 Based on all of these considerations, as further detailed in Exhibits C-1 to C-
10 11, persons of ordinary skill in the art would have combined the teachings of the
11 prior art references discussed and charted in those exhibits with teachings from the
12 same reference, with the knowledge of a person of skill in the art, and/or with
13 teachings from other prior art references as disclosed in Exhibits C-1 to C-11. The
14 combinations of these references would have rendered obvious to one of ordinary
15 skill in the art the subject matter of the asserted claims of the ’635 patent. The
16 references identified in Exhibits C-1 to C-11 are analogous prior art to the subject
17 matter of the asserted claims and, for at least the reasons set forth below, are
18 properly combinable. Because these prior art references exist within a single field of
19 art, particularly one in which individuals in the field often shared and/or
20 collaborated on their work, it would have been obvious for a person of skill in the art
21 to look from one piece of prior art to another in order to find any missing
22 functionality they desired to implement. Therefore, these references provide
23 interrelated teachings and one of ordinary skill would look to the concepts in any of
24 these references when seeking to solve the problems purportedly addressed by the
25 ’635 patent.

26 Numerous prior art references, including those identified in the attached
27 exhibits, reflect common knowledge and the state of the prior art before the earliest
28 claimed effective filing date of the ’635 patent. As it would be unduly burdensome

1 to create detailed claim charts for all of the invalidating combinations, for at least
2 the reasons described in these invalidity contentions, it would have been obvious to
3 one of ordinary skill in the art to combine any of a number of prior art references,
4 including any combination of those identified in the attached exhibits, to meet the
5 limitations of the asserted claims of the '635 patent. Defendant's inclusion of
6 exemplary combinations, in view of the factors and motivations identified here, does
7 not preclude Defendant from identifying other invalidating combinations and/or
8 motivations as appropriate.

9 No showing of a specific motivation to combine prior art is required to
10 combine the references disclosed above and in the attached charts, because each
11 combination of art would have no unexpected results, and at most would simply
12 represent a known alternative to one of ordinary skill in the art. *See KSR*, 127 S. Ct.
13 at 1739-40 (rejecting the Federal Circuit's "rigid" application of the teaching,
14 suggestion, or motivation to combine test, instead espousing an "expansive and
15 flexible" approach). Indeed, the Supreme Court held that a person of ordinary skill
16 in the art is "a person of ordinary creativity, not an automaton" and "in many cases a
17 person of ordinary skill in the art will be able to fit the teachings of multiple patents
18 together like pieces of a puzzle." *Id.* at 1742. Nevertheless, in addition to the
19 information contained herein, Defendant hereby identifies additional motivations
20 and reasons to combine the cited art.

21 One or more combinations of the prior art references identified herein, with
22 itself, the knowledge of one of skill in the art, or with other references, would have
23 been obvious because these references would have been combined using: known
24 methods to yield predictable results; known techniques in the same way; a simple
25 substitution of one known, equivalent element for another to obtain predictable
26 results; and/or a teaching, suggestion, or motivation in the prior art generally. In
27 addition, it would have been obvious to combine the prior art references identified
28 above because there were only a finite number of predictable solutions and/or

1 because known work in one field of endeavor prompts variations based on
2 predictable design incentives and/or market forces either in the same field or a
3 different one. In addition, the combinations of the prior art references identified
4 above would have been obvious because the combinations represent the known
5 potential options with a reasonable expectation of success.

6 Additional evidence that there would have been a motivation or reason to
7 combine the prior art references identified above includes the interrelated teachings
8 of multiple prior art references; the effects of demands known to the design
9 community or present in the marketplace; the existence of a known problem for
10 which there was an obvious solution; the existence of a known need or problem in
11 the field of endeavor at the time of the invention; and the background knowledge
12 that would have been possessed by a person having ordinary skill in the art. For
13 example, the prior art references are generally directed to the same problems. Thus,
14 a skilled artisan seeking to solve these problems would look to these cited references
15 in combination.

16 Thus, the motivation or reason to combine the teachings of the prior art
17 references disclosed herein is found in the references themselves and in: (1) the
18 nature of the problems being solved; (2) the express, implied, and inherent teachings
19 of the prior art; (3) the knowledge of persons of ordinary skill in the art; (4) the fact
20 that the prior art is generally directed towards the same problems; and/or (5) the
21 predictable results obtained in combining the different elements of the prior art; (6)
22 the use of a known technique to improve similar devices, methods, or products in the
23 same way; (7) the predictable results obtained in applying a known technique to a
24 known device, method, or product ready for improvement; (8) the finite number of
25 identified predictable solutions that had a reasonable expectation of success; and (9)
26 known work in various technological fields that could be applied to the same or
27 different technological fields based on design incentives or other market forces.

28 It would have been obvious to combine any of the prior art in Exhibits C-1 to

1 C-11 because all of these references relate to devices and methods with limitations
2 that were well known to the skilled artisan prior to the '385 application.

3 A wide variety of techniques were known to the skilled artisan in the
4 development of light therapy systems prior to the filing of the '385 priority application.
5 In particular, as discussed below, each of the limitations of the asserted claims of the
6 '635 patent were known to the skilled artisan and available in the artisan's
7 "toolbox." Indeed, it would be simply a matter of design choice to draw from these
8 known techniques and combine them to render the asserted claim invalid.

9 ***Light Therapy Systems Using Red and Near Infrared (NIR) Light for***
10 ***Therapeutic Applications.*** Light Therapy systems with communicatively coupled
11 light devices, such as panels or light arrays, have been well known in the art for some
12 time. The physical benefits of light therapy, or photobiomodulation ("PBM") were
13 studied extensively prior to the priority application for the '635 patent. Many
14 publications and patents described these systems, their purposes, controls and other
15 features in detail. Only some of those patents and publications are discussed here.

16 Early prior art like *Holzer*, *Mori*, *Sullivan* and *Bansal* disclosed light
17 treatment apparatus and extensively discussed the benefits of PBM. *See e.g.*,
18 *Sullivan* at [0005-0026] (discussing "light emitting diodes emitting electromagnetic
19 radiation of various wavelengths (i.e., colors) for administering positive and
20 beneficial treatments to living organisms (including mammals) for injury, pain relief
21 and illness.") *Dijkstra* also disclosed a "device for treating various external and
22 internal body conditions by using LED Light Therapy, Laser Light Therapy, Photo-
23 Bio-Modulation Therapy (PBMT), Photodynamic Therapy (PDT), UV based light
24 therapy and/or any other suitable light therapy." [0001]

25 The benefits of red and near infra-red ("NIR") light were well known for its
26 therapeutic properties well before the filing of the '385 priority application. For
27 example, *Ferguson* discloses an LED panel front surface [that] is a uniform color
28 and includes an array of mounted infra-red LEDs. *Ferguson* at [0025]. *Hamid*

1 discloses “[a] photo-bio-stimulation device uses near infrared (NIR) laser
2 illumination of the scalp to promote hair growth with a lightweight user wearable
3 device.” *Hamid* at Abstract. *Huout* discloses a wide range of therapeutically
4 beneficial light wavelength including red and NIR. “Preferably, the light source
5 comprises an emission spectrum having a maximum emission wavelength chosen
6 from the wavelength ranges 400 nm to 440 nm, 590 nm to 650 nm and 810 nm to
7 850 nm.” *Huout* at [0026]. Moreover, *Mitchell* teaches an “emitter unit can include
8 an array of LEDs 106 or other emitters that emit infrared and/or near-infrared light
9 at a wavelength specific to the optic window of human tissue.” *Mitchell* at [0022].
10 *Sullivan* teaches a combination of red and NIR emitters for PBM: “LED's emitting
11 red light at 630 nm, 12 LED's emitting infrared (IR) light at 880 nm, and 12 LED's
12 emitting blue light at 470 nm.... The red, blue and IR light emitting LED's, as well
13 as their availability, are well known in the art and, therefore, are not explained
14 further.” *Sullivan* at [0056]. *Vargas* discloses “a skin treatment device, and more
15 particularly, to an apparatus for the application of red and near infra-red LED
16 phototherapy over large areas of a user's body.” *Vargas* at 1:11-13. *Lim* teaches the
17 use of both wavelength spectrums for therapeutic treatment and discloses an
18 “irradiation unit [] which is capable of generating light energy of at least one
19 preselected wavelength selected from the group consisting of near infrared red light
20 wavelengths and visible red light wavelengths.” *Lim* at 11:21-27. Many references
21 discussed in these contentions disclose the benefits of red and NIR therapy. *See,*
22 *e.g., Shterzer, Adam, Beckman, Holzer, Dougal, Dye, Brawn, Larsen, KR'354. See*
23 *Ex. C-11.* Thus, red and NIR light therapy were well known to a POSITA prior to
24 the to the filing of the '385 priority application.

25 A POSITA seeking to develop a light-based therapy device would look to and
26 draw motivation from this established art and its teachings to incorporate red and
27 NIR light. As discussed above, these wavelengths of light have long been known to
28 provide healing benefits for all types of ailments. A POSITA would be acutely

1 aware of the healing properties of red and near infrared light would utilizes these
2 wavelengths for those properties as a design choice dependent of the condition the
3 POSITA seeks to treat.

4 In particular, the '385 priority application attempts to address shortcomings of
5 the prior art PMB with respect to the inadequate size requiring multiple sessions.
6 Many prior art references cited herein address this same problem. For example,
7 *Dijkstra* discloses a system where “[t]he first and the second light therapy devices
8 are identical to each other and are being used together to cover the maximum body
9 portion of the user at one time.” *Dijkstra* at [0096]. A POSITA would look to use
10 red and NIR light as the primary wavelengths for development of a therapy light
11 device based up the knowledge of these wavelength treatment effectiveness which
12 would result in a reduction in treatment sessions. *Boyajian* teaches a five panel
13 system with "lighted hinge" to reduce or eliminate optical dead spaces between
14 adjacent panels when the illuminator is bent into a certain configuration.” *Boyajian*
15 at Abstract. Because these references seek to solve the same problem discussed in
16 the '385 priority application, a POSITA would be motivated to consult these
17 references for inspiration, teachings and general art in the field of Light Therapy
18 Systems Using Red and Near Infrared (NIR) Light.

19 ***Light Therapy Systems with Communicatively Coupled Light Devices.*** Light
20 therapy systems with communicatively coupled light devices were also well known
21 in the art. Many prior art PBM therapy systems taught light devices that were
22 communicatively coupled together for treatment. The prior art teaches that multiple
23 panels provide more irradiation coverage. For example, *Ferguson* discloses a
24 multiple module light therapy device for therapeutic treatment noting “[r]ecent
25 inventions have taken the use of light as a therapeutic device from the realm of
26 science-fiction to an actual science.” *Ferguson* at [0006]. “One embodiment of the
27 current invention comprises two LED panels and a pedestal. Each LED panel
28 includes a front surface and a back surface.” *Id.* at [0016]. *Baaijens* discloses

1 “various embodiments of the approach disclosed herein are particularly suited for a
2 lighting system that is utilized for therapeutic purposes such as treating jetlag, social
3 jetlag, seasonal depression, Surgery recovery, etc[,]” 8:6-10, and teaches that the
4 multiple fixtures can communicate via integrated controllers. “[I]n some
5 embodiments multiple lighting fixtures 110 may be provided, each having a
6 controller integrated therein and controllers across multiple lighting fixtures 110
7 may optionally communicate with one another. Also, for example, in some
8 embodiments multiple lighting fixtures 110 may be provided, with one having a
9 controller integrated therein that controls multiple lighting fixtures 110 via
10 communication with those other lighting fixtures.” *Baaijens* at 9:2-9. *Houot* notes
11 “[p]rior art phototherapy equipment for professional use is already known,
12 comprising a support mounted on a base with rollers and a head articulated on the
13 support comprising four adjacent luminous panels” [0010] and discloses “equipment
14 for treating a region of the body of a user by phototherapy.” *Houot* at [0013].
15 *Boyajian* specifically discusses the benefits of multiple device geometry to increase
16 the irradiation areas and proposes structure that “uses a plurality of panels, wherein
17 at least one panel is of a different width than the other panels. This panel is
18 positioned between two other panels and, in a way, acts as a “lighted hinge” to
19 provide enough “fill-in” light to reduce or eliminate the optical dead spaces when
20 the panels are bent into a certain configuration. Preferably, five panels in total are
21 used to provide for an optimal increase in the total size of possible treatment areas.”
22 *Boyajian* at 2:62-3:3. Thus the prior art was replete with multiple light devices in
23 communication with one another. Notably, a POSITA would understand that
24 because the light devices were able to communicate, they would be *a priori*
25 “communicatively coupled” and that a communication module must be present in
26 each light device for coupling to be established. Many references disclose multiple
27 communicatively coupled devices. *See, e.g., Dijkstra, Vargas, , Adam, Beckman,*
28

1 *Schterzer, Lim, Hamid, Holzer, Houot, Broeng, Dougal, Dye, Brawn, Larsen,*
2 *KR'354. See Ex. C-11.*

3 Moreover, the existence of “Light Therapy Systems with Commutatively
4 Coupled Light Devices” was conclusively established in the prior art during the
5 prosecution history of the '635 patent and provides substantial evidence of the state
6 of the art at the time the '385 patent priority application was filed. During the initial
7 prosecution of the '635 patent, the original claims were rejected in view of the
8 teachings of *Mitchell*. In particular, the examiner argued that *Mitchell* taught a red
9 light and near infrared light therapy system with multiple light therapy devices each
10 having a communication module (wired or wireless) communicatively coupling the
11 light therapy devices. See MRL00000147-371, 02.15.2009 Non-Final Office action
12 at 4. In response to this rejection, the Patent Applicant argued, *inter alia*, that
13 *Mitchell* did not disclose a communication module located within a housing or a first
14 communication module configured to communicate directly with a second
15 communication module. *Id.*, 03.18.2009 Remarks at 11-12. The Examiner rejected
16 this argument noting that “the wired or wireless communication described in
17 paragraph [0030] satisfies the claim limitations, as the claim only requires direct
18 communication, rather than a direct connection.” *Id.*, 05.24.2019 Final Office
19 Action at 5-6. The Patent Applicant capitulated to the Examiner and amended the
20 claims to include a control panel with input buttons and indicator lights. *Id.*,
21 06.14.2019 Response to Final Office Action at 3-4.

22 Thus, the prosecution history the '635 patent as well as numerous prior art
23 reference clearly demonstrate that *light therapy systems with multiple*
24 *communicatively coupled light therapy devices housing a plurality of red light and*
25 *near infrared light lights including communication modules (wired or wireless)*
26 *were well known at the time of the filing of the '385 priority application.*

27 A POSITA looking to develop a light-based therapy device would look to this
28 established art and its teachings to multiple communicatively connect multiple light

1 emitting devices. As discussed, ‘385 priority application attempts to address
2 shortcomings of the prior art PMB with respect to the inadequate size requiring
3 multiple sessions. Many prior art references cited herein address this same problem
4 by disclosing systems using of multiple devices to allow for increased treatment
5 areas size. *See supra*. Because increased treatment area size requires multiple light
6 devices, a POSITA would look to the coupling techniques of centralized power
7 input and control taught by the prior art discussed above. This includes analog,
8 digital and remote control that were well known in the art. Moreover, coupling and
9 decentralized addressable techniques have long been known in the light control art
10 and would be within the skilled artisan’s design choice toolbox. *See*

11 <https://www.dali-alliance.org/dali/>

12 ***Light Therapy Devices with Complex Control Panels with Indicator Lights,***
13 ***Switches and Buttons.*** Many prior art publications and patents disclosed separate
14 complex multi- control panels, one associated with each light therapy device. These
15 prior art control panels were known to incorporate indicator lights, switches and
16 buttons to control the operation, timing, wavelength emission and power input. The
17 prior art exposed during the prosecution history is evidence of the state of the art of
18 control panels. Subsequent to the issuance of the ’635 patent, *ex parte*
19 reexamination was requested and instituted. In particular, the Patent Office found
20 that *Dijkstra*, *Vargas*, *Broeng*, *Sullivan* and *Shterzer* all disclosed multiple light
21 therapy devices with separate a control panel with indicator lights. MRL00003014 –
22 3444 at 4. In particular, the examiner found that *Dijkstra* disclosed “first and second
23 light therapy devices, each with its own control panel and being operated in
24 synchrony.” *Id.* at 5. *Vargas* disclosed “first and second light sources that are
25 operated by two control panels.” *Id.* at 6. “*Broeng* teaches that multiple devices can
26 be used at [0299] and hence appears to teach first and second light sources that are
27 operated by two control panels, one associated with each device.” *Broeng.* at 7.
28 *Sullivan* teaches first and second light sources that are operated by a processor 29

1 with a control panel (switched for time, frequency, pattern, etc.). *Sullivan* at 8.
2 Finally, *Shterzer* teaches first and second light sources 104A-104N that are each
3 operated by its own control unit 134. *Shterzer* at [0165].

4 Moreover, *Adams* (in combination with *Mitchell*) was found by the Patent
5 Office to disclose indicator lights on a control panel during prosecution of the
6 related '495 patent. MRL00000372-612, 12.06.2019 First Office Action. In
7 particular, *Adams* "discloses a light therapy device with a plurality of lights and a
8 control panel with an input button and two first indication lights. *See id.* at [0051]
9 ,[0066] (describing multiple indication lights). While the Patent Applicant
10 responded that *Adams* did not specifically disclose a control panel, the Examiner
11 reasoned that "because Adam discloses a first input button and a first pair of
12 indication lights, Adam provides the control panel as claimed." MRL00000372-
13 612, 12.27.2019 Interview Summary at 1. Like *Adams*, *Norwood* provides an
14 explicit disclosure of digital control logic to control the characteristics of the light
15 emission. *Norwood* at 23:20-25-61 (discussing control logic and microprocessor
16 control). *Norwood* teaches that multiple device control can be achieved through the
17 general-purpose computer programming. As further examples, *Dijkstra* and *Broeng*
18 disclose the use of remote devices, such as smartphones, to control light therapy
19 devices. For example, *Dijkstra* teaches: "Referring to FIG. 5, the light therapy
20 system 100 comprises of a remote device, *i.e.*, a mobile device 520 held by a user
21 and a light therapy device 200 according to a second embodiment of the present
22 disclosure." *Dijkstra* at [0093]. *Dijkstra* teaches that the mobile device 520 is
23 communicatively coupled to the light therapy device 200 via NFC, WI-FI, Bluetooth
24 or any other wired or wireless communication means," and that "the display of the
25 mobile device 520 acts as a display unit 160 for the light therapy device 20." *Id.*
26 "The mobile device 520 is having a software application installed in it. The software
27 application provides a user interface 430 where a user can find multiple options to
28 select in order to communicate with the light therapy device 200. Once the mobile

1 device is connected with the light therapy device 200 the user is able to control the
2 light therapy device 200 via the user interface.” *Id.* Similarly, *Broeng* teaches the use
3 of remote devices to control the light therapy device. “In this regard, it is noted that
4 in certain embodiments the controller is integral to the device (e.g., incorporated into
5 the housing of the device), while in other embodiments, the controller may be
6 remote from the device and coupled by a control cable or cables ((*see, e.g.,* 109 in
7 the illustrative, but non-limiting embodiments shown in FIG. 1). In other
8 embodiments the controller may control the phototherapy device through a radio
9 link, a light (e.g., infra-red link), via a Bluetooth link, and via a WiFi link. In certain
10 embodiments the controller comprises an App on a cell phone, tablet, or computer.”
11 *Broeng* at [0267].

12 Thus, light therapy devices with control panels with indicator lights, switches
13 and buttons were well known to a POSITA prior to the to the filing of the ’385
14 priority application. *See* Ex. C-11.

15 A POSITA looking to develop a light-based therapy device would look to this
16 established art and its teachings of control system implementation. As discussed,
17 ’385 priority application attempts to address shortcomings of the prior art PMB with
18 respect to the inadequate size requiring multiple sessions. Many prior art references
19 cited herein address this same problem by disclosing systems using of multiple
20 devices to allow for increased treatment areas size. *See supra.* Because increased
21 treatment area size requires multiple light devices to be controlled to provide the
22 sought-after treatment, a POSITA would look to the centralized techniques of
23 controlling power input and control to the multiple devices as taught by the prior art
24 discussed about. This includes analog, digital, and remote control. These coupling
25 techniques have long been known in the light control art and would be within the
26 skilled artisan’s design choice “toolbox.” Moreover the skilled artisan would be
27 aware of differing methods to do so, including indicator lights, buttons, physical
28 switches for software based general purpose computer control. The nature of the

1 NIR light therapy itself requires a solution that provides user with an indication that
2 the NIR lighting was on because it was not visible to the naked eye. These types of
3 solutions are plentiful in the prior art to which the POSITA would look in evaluating
4 design choices.

5 ***Light Therapy Devices with Lead and Follow Operation and Mode Select***
6 ***Switches.*** Lead and follow operation with mode select switches for light therapy
7 devices was also well known in the prior art before the priority date of the ‘385
8 patent application. Commonly referred to in the art as master-slave control, the ‘385
9 priority patent application describes Lead and Follow Operation: “To ensure that the
10 light therapy devices 12 operate in the same way, some embodiments feature a lead
11 mode 70 and a follow mode 80. A light therapy device 12 that is configured to be in
12 the lead mode 70 may send operation instructions to all other light therapy devices
13 12 in the system 10. A light therapy device 12 that is configured to be in the follow
14 mode 80 may receive operation instructions from a light therapy device 12 that is in
15 the lead mode 70.” ’635 patent at 7:38-45. When the claims of the original ’635
16 patent were found unpatentable over *Dijkstra* in view of *Norwood* in the ’635 patent
17 reexamination, the Applicant accepted that the prior art disclosed its lead and follow
18 operation controlled by a mode select switch and chose to amend the claims to
19 include “lead, follow *and neutral* mode operational capabilities” rather than contest
20 the prior art’s disclosures. MRL00003014-3444, 02.09.2022 *Ex Parte* Notice of
21 Intent to Issue Reexamination Certificate at 2 (emphasis added). Indeed, the patent
22 owner described neutral mode as “key novel aspect that was indicated as allowable
23 over the [prior] art.” MRL00003014-3444, 12.06.2021 Agenda for Examiner
24 Interview on December 2, 2021 at 3 (Remarks). Thus, in choosing not to contest the
25 prior art disclosing lead and follow operation and relying on the “novelty” of neutral
26 mode, the patent owner admitted that lead and follow operation was known and
27 disclosed. Given the state of the art discussed below, this admission is clearly
28 warranted and supported.

1 For example, during the reexamination of the ‘495 patent, the concept of a
2 system with two light therapy devices each able to be switched to either of a lead
3 mode and a follow mode was found to have been disclosed in the prior art.
4 10.07.2021 Order granting Reexamination; Request for *Ex Parte* Reexamination at
5 Ground 5, pp. 54-67. In particular, the Patent Office found that *Broeng, Beckman,*
6 *Ferguson, Lim, Dijkstra* and *Norwood*, alone or in combination invalidated the
7 claims directed to two light therapy devices each able to be switched to either of a
8 lead mode and a follow mode. *Id. Dijkstra* explicitly disclosed master-slave
9 operation among the light therapy devices and *Norwood* detailed the control of the
10 master-slave operation. “Dijkstra teaches first and second light therapy systems that
11 are operated in synchrony and can be used in a master/slave configuration, while
12 Norwood teaches a switching arrangement for master/slave selection.” *Id.* at 8.
13 Indeed, in during the subsequent prosecution of the ‘172 patent application which
14 claims priority to the ‘385 patent application, the applicant *admitted* and *confirmed*
15 that “Dijkstra and Norwood both disclose master/save mode[.]” MRL00002240-
16 2934, 09.27.2022 Reply at 15.

17 Many prior art references disclose lead-follow operation described as master-
18 slave functionality. For example, *Ferguson* discloses a lead-follow operation as a
19 master-slave arrangement between its two panels. “Included on one of the LED
20 panels' one or more side surfaces is a power input mechanism, an on/off push
21 button, and a power output. This is the master panel. Power is supplied from a
22 power supply to the power input mechanism. The one or more side surfaces of the
23 other LED panel in the current embodiment includes only a power input. This is the
24 slave panel.” *Ferguson* at [0025]. *Huout* is another excellent example of master
25 slave control when it teaches “centralizing the control means in a single ‘master’
26 module, it is possible to control all the other ‘slave’ modules simultaneously.”
27 *Huout* at [0015]

28 Thus, Light Therapy Devices with Lead and Follow Operation and Mode Select

1 Switches were well known to a POSITA prior to the to the filing of the '385 priority
2 application. *See* Ex. C-11.

3 A POSITA looking to develop a light-based therapy device would look to this
4 established art and its teachings of control system implementation. As discussed, the
5 '385 priority application attempts to address shortcomings of the prior art PMB with
6 respect to the inadequate size requiring multiple sessions. Many prior art references
7 cited herein address this same problem by disclosing systems using multiple devices
8 to allow for increased treatment area size. *See supra*. Because increased treatment
9 area size requires multiple light devices to be controlled to provide the sought-after
10 treatment, a POSITA would look to the centralized techniques of controlling power
11 input, lead and follow operation, and switching taught by the prior art discussed
12 above. The desire for a multi-device system would motivate a POSITA to look for
13 simple control implementation which would lead the POSITA to consider the
14 centralized master-slave control technique long used in light system design. These
15 control techniques have long been known in the light control art and would be
16 within the skilled artisan's design choice toolbox. Moreover the skilled artisan
17 would be aware of differing methods to do so, including physical mode switches or
18 software-based switching for general purpose computer control. These types of
19 solutions are plentiful in the prior art to which the POSITA would look in evaluating
20 design choices.

21 ***Light Therapy Devices with Sidewalls that are Configured to Physically***
22 ***Contact.*** Light therapy devices with sidewalls that are configured to physically
23 contact were well know before the priority date of the '635 patent application. Early
24 prior art discloses light therapy devices with multiple panels configured to
25 physically contact at the sidewalls of the panel. In particular, as early as 2005,
26 *Larsen* disclosed a five-panel array connected at the sidewalls. "Several applicators
27 13 are flexibly connected to each other through hinges 10, respectively connecting
28 one edge with the other, whereby the applicators are suitable for the treatment of for

1 example, the backs of humans and so become adjustable for an equidistant
2 positioning of the applicators 13 above the skin.” *Larsen at* [0072]; *see also* Fig.1.
3 *Sullivan* discloses two panels connected on the sidewalls to form a folding light
4 therapy bed. *See Sullivan at* [0060]; Fig. 5. *Vargas* (Fig 1, 2) and *Teergardin* (Fig.
5 1B) similarly discloses a folding light therapy bed where the two halves are
6 connected and in physical contact along the sidewalls. Numerous references disclose
7 multiple light panels connected to each other with hinges such that the panels are
8 configured to physically contact that the sidewall and, when opened fully, do in fact
9 physical contact at the sidewalls. *See Ex. C-11.*

10 Finally, the prior art is replete with examples of PBM light therapy panels that
11 are in physical contact and are connected at the sidewall. For example, *McDaniel*
12 discloses a “a multi-paneled device having an array of LED's” for the “facial
13 application” for the treatment of “acne bacteria.” *McDaniel at* 4:61-64; Fig. 14. The
14 LED panels are connected and “fabricated in a manner that permits even exposure of
15 tissue infected with or otherwise containing acne bacteria.” *Id. at* 59-61. Thus,
16 *McDaniel* teaches that when panels are physically contacted and connected at the
17 sidewalls, the light coverage is greater and the treatment area is expanded.

18 *Huout* discloses a wearable plurality of portable light therapy modules. *Huout*
19 *at* [0034]. The modules employ a “releasable mechanical connection of the
20 magnetization type in order to form a removable magnetic connection between the
21 modules 12. In a preferred embodiment, the magnetic links are also electrically
22 conductive. Consequently, the use of the equipment 10 will be limited to assembling
23 the modules 12 together by magnetization without requiring additional electrical
24 connections.” *Id. at* [0036]. “[T]he modules are able to exchange data by data
25 communication means and in which the control module comprises means for storing
26 another predefined processing program and means for communicating the other
27 program to the control means of the other modules.” *Id. at* [0024]. This
28 communication can be “the master-slave type. By centralizing the control means in a

1 single ‘master’ module, it is possible to control all the other ‘slave’ modules
2 simultaneously.” *Id.* at [0015]. Thus, *Huout* teaches modules with physically
3 connected sidewalls where the sidewall connection also facilitates electrical
4 conduction and communication among the modules.

5 *KR’354* discloses a “skin ray irradiator is used to treat or prevent diseases by
6 stimulating the human body with low output light energy of various wavelength
7 bands and is mainly used for skin beauty such as acne, black spot, spots, pigmented
8 lesions.” *KR’354* discloses a three-panel skin treatment device where the sidewalls
9 of the panels are in physical contact and are removeable connected. the treatment
10 device “can be used as a tunnel type skin treatment device by simply attaching the
11 upper part of the treatment device, the left side of the treatment device, and the right
12 side of the treatment device.” Moreover, the connected sidewalls can utilize magnets
13 “to ensure that there is no gaps and that [the panels are] well connected.”

14 *Boyajian* discloses a light therapy device that “uses a plurality of panels,
15 wherein at least one panel is of a different width than the other panels. This panel is
16 positioned between two other panels and, in a way, acts as a “lighted hinge” to
17 provide enough “fill-in” light to reduce or eliminate the optical dead spaces when
18 the panels are bent into a certain configuration. Preferably, five panels in total are
19 used to provide for an optimal increase in the total size of possible treatment areas.”
20 *Boyajian* at 2:62-3:3. In particular, *Boyajian* discloses that the panels “are rotatably
21 connected by hinges 50. The hinges 50 may take the form of nested hinges, which
22 may include hinges that substantially reduce or eliminate optical dead spaces.” *Id.*
23 at 4:44-47. *Boyajian* teaches that by connecting the panels, such that “the outside
24 vertical edges of adjoining panels to be positioned closer to one another. By spacing
25 the vertical edges of adjoining panels closer, optical dead spaces may be further
26 reduced or eliminated.” *Id.* at 5:5-9. *Boyajian* discloses that the elimination of
27 optical dead space is a goal achieved by connecting the sidewalls of the light panels
28 in a multi-panel therapy system. *Id.*

1 Thus, light therapy devices with sidewalls that are configured to physically
2 contact were well known to a POSITA prior to the to the filing of the '385 priority
3 application. *See* Ex. C-11.

4 A POSITA seeking to develop a light-based therapy device would look to and
5 draw motivation from this established art and its teachings to connect multiple
6 panels to increase treatment size and decrease the requirement of multiple sessions.
7 By connecting and putting the physical panels in direct contact, this stated goal of
8 the '635 Patent is achieved. In particular, the '385 priority application attempts to
9 address shortcomings of the prior art PMB with respect to the inadequate size
10 requiring multiple sessions. Many prior art references cited herein address this same
11 problem. Using multiple light devices creates the potential for dead optical space
12 and reduced treatment size. A POSITA would attempt to solve this issue by utilizing
13 the teachings of prior art discussed above that arranges the several devices in
14 physical contact. For example, *Boyajian* teaches a five panel system with "lighted
15 hinge" to reduce or eliminate optical dead spaces between adjacent panels when the
16 illuminator is bent into a certain configuration." *Boyajian* at Abstract. Indeed,
17 treatment size isn't the only motivation for physically contacting the light devices.
18 Through physical contact, electrical and control signals can be transmitted to
19 establish simplified centralized control such as taught in *Huout*. Because these
20 references seek to solve the same problem discussed in the '385 priority application,
21 a POSITA would be motivated to consult these references for inspiration, teachings
22 and general art in the field of Light Therapy Devices with Sidewalls that are
23 Configured to Physically Contact.

24 ***Light Therapy Devices with Neutral Mode Operation.*** According to its
25 Infringement Contentions, Plaintiff states: "The '635 Patent described "neutral"
26 operation as "when the second light therapy device operates in the neutral mode the
27 second light therapy device may operate independently of the first light therapy
28 device." *See e.g.*, Infringement Contentions, Ex. 3 at 43 citing '635 patent at 2:20-

1 23. “The user can, with the Accused Products in a multi-panel system, unplug the
2 control cable from one or many LED panels and, as a result, each unplugged panel
3 in that multi-panel system would operate independently in a neutral mode. It is
4 configured to operate in a neutral, independent mode.” *Id.* Thus, Defendant
5 understands that it is Plaintiff’s contention that a single, unplugged, stand-alone
6 panel operates independently and in the claimed “neutral mode.”

7 Notwithstanding that an unplugged panel is no longer part of a “multi-panel
8 system” or that the panels are no longer “communicatively coupled,” under
9 Plaintiff’s construction, the prior art is replete with therapeutic light devices that are
10 not plugged into other light devices and that operate independently. Indeed any of
11 the prior art discussed in these Invalidity Contentions that disclose a single light
12 device could be operable in “neutral mode” as Plaintiff construes that term. *See e.g.,*
13 *Mitchell, Dijkstra, Vargas, Broeng, Sullivan, Ferguson, Samson, Huout, Boyajian,*
14 *Lim, Shterzer, Adam, Beckman, Norwood, Holzer, Dougal, Dye, Brawn, Larsen,*
15 *KR’354; see also Ex. C-11.*

16 The ‘385 priority application, however, describes “neutral mode” operation
17 as: “A light therapy device 12 configured to be in neutral mode 90 may operate on
18 its own and may ignore instructions sent from a light therapy device 12 in the lead
19 mode 70. In this manner, the light therapy device(s) 12 in the neutral mode may
20 ignore incoming signals.” *See* ‘635 patent at 7:66-8:3. The patent owner first
21 proposed the term neutral mode be included in the claim during the *ex parte*
22 reexamination of the ‘635 patent describing that the introduction of “neutral mode”
23 as the “key novel aspect.” MRL00003014-3444, 12.06.2021 Reexamination,
24 Agenda for Examiner Interview (“Neutral mode is the key novel aspect that was
25 indicated as allowable over the art cited by the petition requestor.”). Subsequent to
26 the interview, the Patent Owner amended the claims to include “the first light
27 therapy device and the second light therapy device are each configured to operate in
28 one of a lead mode, a follow mode, and a neutral mode, wherein when the first light

1 therapy device operates in the lead mode and the second light therapy device
2 operates in the follow mode the second light therapy device performs operations as
3 instructed by the first light therapy device.” Notably, the new claim limitation
4 indicated that a light therapy device in follow mode performs operations as
5 instructed by the first light therapy device operating in lead mode.

6 The “neutral mode” made a second appearance in the claims of the related
7 ‘172 patent during original prosecution. In response to an anticipation rejection
8 based on the *Mitchell* reference, the applicant amended the claims to include the lead
9 and follow limitations (like those added to the claims of the ‘635) but without the
10 neutral mode limitation. The examiner rejected these claims in light of the teachings
11 of *Dijkstra* and *Norwood* which disclose master and slave operation which
12 corresponded to the claimed lead and follow modes. The Applicant amended the
13 claims a second time adding the neutral mode claim limitation. Importantly, this
14 time the applicant explained what was meant by neutral mode in addition to
15 conceding that both *Dijkstra* and *Norwood* disclose “master/slave mode.” The
16 applicant admitted: “Dijkstra and Norwood both disclose “master/slave mode;”
17 however neither discloses an explicit neutral mode. Insofar as the devices of Dijkstra
18 and/or Norwood may be configured to operate independently (i.e, in a neutral mode
19 of sorts), both references still fail to teach or disclose *a device operating in a neutral*
20 *mode such that the device ignores instruction from another device*, as recited in
21 amended claim 12.” MRL00002240-2934, 09.27.2022 Interview Summary at 15
22 (emphasis added). Thus, it is clear from this admission in the prosecution history
23 that for a device to have a neutral mode within the meaning of the ‘635 family
24 common specification, the device must “*ignore instruction from another device*”
25 and not just be configured to operate independently.

26 For example, *Vargas* discloses independent control of the light therapy
27 devices to custom light treatment for various parts of the body. “The plurality of
28 narrow band, light emitting diodes (LEDs) 310 may, for instance, be arranged in a

1 multiplicity of illumination regions 320. Each of the illumination regions 320 may
2 be a collection of LEDs whose illumination time or intensity may be cooperatively
3 controlled by the exposure control unit 350. For instance, each exposure region may
4 be set to an exposure intensity that is different from the other regions, either by
5 varying the current supplied to the LEDs in that region, or by varying the
6 mark/space ratio of the illumination within that region, or some combination thereof.
7 In this way, different parts of the user's 110 body may be subject to a different
8 degree of therapy. The multiplicity of illumination regions 320 may be any useful
9 shape such as, but not limited to, a square, a rectangle, an oval, a circle, a triangle or
10 some combination thereof.” *Vargas* at 5:25-45. In this manner, each light therapy
11 device, although still coupled to the other light therapy device, is operating
12 independently in a “neutral mode.”

13 Likewise, *Boyajian* also discloses a neutral mode where “the LED arrays 60
14 may be individually configured is shown in FIG. 5. Here, the LED arrays 60 are
15 divided into three general areas, which may be described as “addressable strings.”
16 Areas 1, 3, and 5 correspond to an addressable string configuration that may be
17 included in the wider panels 10a, 10c, and 10e, while areas 2, 4, and 6 correspond to
18 an addressable string configuration that may be included in the narrower panels 10b
19 and 10d. The current to each area is adjusted in order to adjust the intensity of light
20 emitting from each of the areas.” *Boyajian* at 6:21-40. Each addressable string
21 operates independently but are still coupled to the larger light therapy system.

22 Defendant incorporates by reference prior art from the prosecution histories
23 and background sections of the '635 Patent. Defendant expects to rely on the
24 testimony of one or more expert witnesses and documents referenced by those
25 expert witnesses in support of these contentions and incorporate those forthcoming
26 expert reports as if fully set forth herein.³

27
28 ³ All such expert reports and testimony will be produced and provided pursuant to the
applicable deadlines in the Court’s Scheduling Order (ECF #034).

1 Defendant contends that there are no secondary considerations of non-
2 obviousness evidencing the validity of any of the asserted claims. Secondary
3 considerations of non-obviousness, also referred to as objective indicia of non-
4 obviousness, “can include copying, long felt but unsolved need, failure of others,
5 commercial success, unexpected results created by the claimed invention,
6 unexpected properties of the claimed invention, licenses showing industry respect
7 for the invention, awards or other industry praise for the invention, and skepticism
8 of skilled artisans before the invention.” *Power Integrations, Inc. v. Fairchild*
9 *Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1368 (Fed. Cir. 2013). “A nexus between
10 the merits of the claimed invention and evidence of secondary considerations is
11 required in order for the evidence to be given substantial weight in an obviousness
12 decision.” *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 668 (Fed. Cir. 2000). Moreover,
13 even if a nexus exists, secondary considerations of non-obviousness “simply cannot
14 overcome [a] strong prima facie showing of obviousness.” *Sundance, Inc. v.*
15 *DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1368 (Fed. Cir. 2008). Plaintiff has not
16 established the existence of any objective indicia of non-obviousness or secondary
17 considerations. Defendant reserves the right to supplement their contentions to
18 respond to any such evidence should Plaintiff identify any. While discovery in this
19 case is ongoing, and Defendant’s investigation continues (which will include expert
20 discovery), to the extent Plaintiff contends that one or more asserted claims is not
21 obvious based on secondary considerations recognized by relevant authority
22 Defendant contends such allegations are without merit. For example, Plaintiff has
23 provided no evidence of copying of the purported inventions of the asserted claims.
24 Similarly, Plaintiff has provided no evidence of any failure of others to realize any
25 purported inventions of the asserted claims, or any evidence of any long felt but
26 unsolved need solved by the purported inventions of the asserted claims. *Id.* To the
27 contrary, the lack of novelty and widespread availability of PMB light therapy
28 devices as demonstrated by the prior art is contrary evidence of any long-felt need

1 for the purported inventions of the asserted claims.

2 Plaintiff also has not identified any evidence that the purported inventions of
3 the asserted claims have enjoyed any commercial success. To the extent that
4 Plaintiff claims that sales of any accused products constitutes commercial success,
5 Plaintiff has not identified any evidence of any nexus between the claimed invention
6 and such alleged commercial success. Moreover, any commercial success of the
7 accused products may be due to factors other than the merits of the asserted claims,
8 including non-patented features or functionalities, marketing efforts or other
9 financial or economic incentives related to the sale or distribution of the accused
10 products. Plaintiff also has provided no evidence of unexpected results or
11 unexpected properties in the purported inventions of the asserted claims. *Id.*
12 Additionally, there is no evidence of any licenses showing industry respect for the
13 purported inventions of the asserted claims, and also no evidence of any awards or
14 other industry praise for any purported inventions of the asserted claims. Finally,
15 Plaintiff has provided no evidence of any skepticism of skilled artisans prior to
16 purported inventions of the asserted claims; to the contrary, the prior art identified
17 herein establishes not only a lack of skepticism but an appreciation that the
18 purported inventions of the asserted claims were known to those of skill in the art.

19 **D. Other Invalidity Grounds**

20 Defendant hereby identify grounds of invalidity based on (1) lack of written
21 description under 35 U.S.C. § 112, first paragraph (pre-AIA); (2) lack of enablement
22 under 35 U.S.C. § 112, first paragraph (pre-AIA); (3) indefiniteness under 35 U.S.C.
23 § 112, second paragraph (pre-AIA), and (4) lack of patentable subject matter under
24 35 U.S.C. § 101. These contentions shall not be construed as an admission that any
25 claim construction advanced by Defendant in this case is in any way inconsistent,
26 flawed, or erroneous. Nor should these contentions prevent Defendant from
27 advancing claim construction and/or non-infringement positions in lieu of, or in
28 addition to, invalidity positions. Further, these contentions shall not be construed as

1 an admission of or acquiescence to Plaintiff's purported construction of the claim
2 language or of other positions advanced by complainant during the course of this
3 litigation. Defendant's Invalidity Contentions under 35 U.S.C. § 112 may depend, in
4 part, on the Court's claim construction, as well as Plaintiffs' alleged scope of the
5 '635 Asserted Claims. Consequently, Defendant only identifies the issues under 35
6 U.S.C. § 112 of which it is presently aware.

7 **1. Enablement and/or Written Description Pursuant to 35**
8 **U.S.C. 112**

9 The '635 patent does not provide sufficient written description to establish
10 that the alleged inventors were in possession of the alleged inventions recited in
11 certain of the Asserted Claims at the time the '635 patent was filed. *Ariad Pharms.,*
12 *Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). In other words, the
13 applicants did not describe their purported inventions in a manner that "reasonably
14 conveys to those skilled in the art that the inventor had possession of the claimed
15 subject matter as of the filing date." *Id.* The specification of the '635 patent also
16 does not enable one of ordinary skill in the art to make and/or use certain recited
17 elements of the '635 Asserted Claims without undue experimentation.

18 To the extent the following limitations are definite (under 35 U.S.C. § 112,
19 second paragraph), the '635 patent fails to sufficiently describe or enable them as
20 required by 35 U.S.C. § 112, first paragraph:

21 "configured to communicate directly" (claim 1, 3*)

22 "configured to operate in one of a lead mode, a follow mode, and a neutral
23 mode" (claim 1, 6*)

24 "performs operations" (claim 1, 6*)

25 "operates in the neutral mode" (claim 7, 21)

26 "configured to ignore instructions" (claim 7)

27 "operates independently" (claim 21)

2. Indefiniteness Pursuant to 35 U.S.C. 112

Several of the '635 Asserted Claims are invalid because they fail to inform those skilled in the art about the scope of the alleged invention with reasonable certainty and are indefinite under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter the applicants regard as their alleged invention.

Certain Asserted Claims of the '635 patent are invalid as indefinite due to the following limitations which fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention:

“configured to communicate directly” (claim 1, 3*)

“configured to operate in one of a lead mode, a follow mode, and a neutral mode” (claim 1, 6*)

“performs operations” (claim 1, 6*)

“operates in the neutral mode” (claim 7, 21)

“configured to ignore instructions” (claim 7)

“operates independently” (claim 21)

VI. U.S. PATENT NO. 11,253,719

A. Relevant Prior Art

Defendant contends that the prior art references identified in Defendant's contentions anticipate or render obvious the asserted claims of the '719 patent. Based on the information reasonably available to Defendant, the priority date of the asserted claims of the '719 patent is no earlier than October 22, 2018, the filing date of the Application No. 16/167,385 (“the '385 application”).

The '719 patent “relates to photobiomodulation therapy systems and methods” and describes in the Background that the field of “[p]hotobiomodulation therapy (or light therapy) is a therapeutic technique that uses low-level wavelengths of light to improve health and treat a variety of health conditions, including skin issues, such as wrinkles, scars, and persistent wounds, among many other

conditions. Similar to how plants use sunlight to heal and grow, humans and animals are able to harness these wavelengths of light and turn them into cellular energy. This treatment stimulates the body's natural healing processes.” Col. 1:37-50. It concedes that “there are a number of photobiomodulation therapy devices available on the market” but observes that “many of these devices are too small and require multiple sessions to treat large areas. As a result, there is a need for a photobiomodulation therapy system that can treat several areas in fewer treatments.” *Id.* at 1:51-56. Thus, the ’719 patent proclaims to disclose “a variety of communicatively coupled light therapy systems.” 1:61-62.

Below, Defendant lists some of the prior art cited in these contentions:

3. Patents and Printed Publications

Bates Number Begin	Bates Number End	Prior Art Reference
MRL00004067	MRL00004081	DE7638568U1
MRL00004082	MRL00004089	DE202012012004U1
MRL00004090	MRL00004104	DE7638568U1
MRL00004105	MRL00004109	English Translation of DE763856
MRL00004110	MRL00004116	CN205924721U
MRL00004117	MRL00004121	English Translation of CN205924721U U
MRL00004122	MRL00004139	FR2917299A1
MRL00004140	MRL00004149	K5 BOOK WEB 2016 new
MRL00004150	MRL00004182	Mouser Racks and enclosures
MRL00004183	MRL00004186	US1617028
MRL00004187	MRL00004201	US4095113
MRL00004202	MRL00004208	US4844069
MRL00004209	MRL00004216	US5733032
MRL00004217	MRL00004229	US5996728
MRL00004230	MRL00004244	US6896693
MRL00004245	MRL00004292	US9227082
MRL00004293	MRL00004307	US10064940
MRL00004308	MRL00004322	US10363434
MRL00004323	MRL00004341	US20040008523A1
MRL00004342	MRL00004351	US20070129777A1
MRL00004352	MRL00004373	US20120104977A1
MRL00004374	MRL00004384	US20120170264A1
MRL00004385	MRL00004393	US20150307332A1

1	Bates Number Begin	Bates Number End	Prior Art Reference
2	MRL00004394	MRL00004405	US20160278304A1
3	MRL00004406	MRL00004436	US20190282826A1
4	MRL00004437	MRL00004479	CA3059989A1
5	MRL00004480	MRL00004492	EP2923728A1
6	MRL00004493	MRL00004505	EP2923728A1
7	MRL00004506	MRL00004516	English Translation of EP2923728
8	MRL00004517	MRL00004532	English Translation of FR3014322B1
9	MRL00004533	MRL00004548	EP1664621B1
10	MRL00004549	MRL00004564	EP3001777A1
11	MRL00004565	MRL00004570	EP3232740B1
12	MRL00004571	MRL00004597	KR101715102B1
13	MRL00004598	MRL00004619	KR200488956Y1
14	MRL00004620	MRL00004641	KR200489354Y1
15	MRL00004642	MRL00004649	KR20090055891A
16	MRL00004650	MRL00004655	English translation of KR20090055891
17	MRL00004656	MRL00004664	KR20100009542U
18	MRL00004665	MRL00004672	English Translation of KR20100009542U
19	MRL00004673	MRL00004682	US3648706
20	MRL00004683	MRL00004799	US6166496
21	MRL00004800	MRL00004835	US7932482
22	MRL00004836	MRL00004846	US8425577
23	MRL00004847	MRL00004864	US9314302
24	MRL00004865	MRL00004883	US9491833
25	MRL00004884	MRL00004900	US9526860
26	MRL00004901	MRL00004921	US9533170
27	MRL00004922	MRL00004936	US10589122
28	MRL00004937	MRL00004988	US10632325
	MRL00004989	MRL00005068	US10881550
	MRL00005069	MRL00005112	US11058889
	MRL00005113	MRL00005143	US11141219
	MRL00005144	MRL00005180	US11395925
	MRL00005181	MRL00005193	US20020198575A1
	MRL00005194	MRL00005203	US20040068305A1
	MRL00005204	MRL00005220	US20050075703A1
	MRL00005221	MRL00005235	US20060229689A1
	MRL00005236	MRL00005260	US20070217199A1
	MRL00005261	MRL00005326	US20100121420A1
	MRL00005327	MRL00005339	US20110054573A1
	MRL00005340	MRL00005357	US20140071681A1

Bates Number Begin	Bates Number End	Prior Art Reference
MRL00005358	MRL00005384	US20150112411A1
MRL00005385	MRL00005392	US20150134032A1
MRL00005393	MRL00005411	US20150224332A1
MRL00005412	MRL00005426	US20180008839A1
MRL00005427	MRL00005436	US20180296854A1
MRL00005437	MRL00005459	US20190030359A1
MRL00005460	MRL00005487	US20190142636A1
MRL00005488	MRL00005690	US20190201711A1
MRL00005691	MRL00005716	US20190269934A1
MRL00005717	MRL00005733	US20200001105A1
MRL00005734	MRL00005779	US20200269065A1
MRL00005780	MRL00005823	US20200360714A1
MRL00005824	MRL00005828	USD679440
MRL00005829	MRL00005839	CN108187235A
MRL00005840	MRL00005848	English Translation of CN108187235A
MRL00005849	MRL00005854	CN200963440Y
MRL00005855	MRL00005861	CN204364686U
MRL00005862	MRL00005868	CN204364686U
MRL00005869	MRL00005869	English Translation of Abstract of CN204364686U
MRL00005870	MRL00005878	DE202016101699U1
MRL00005879	MRL00005884	English Translation of DE202016101699U1
MRL00005885	MRL00005947	US20050085875A1
MRL00005948	MRL00005985	US20080269849A1
MRL00005986	MRL00006015	WO2017066270A1
MRL00006016	MRL00006079	English Translation of EP3490671A1
MRL00006080	MRL00006103	English Translation of KR101715102B1
MRL00006104	MRL00006117	English Translation of KR200488956Y1

Moreover, Defendant hereby incorporates by reference all the references cited during the prosecution of the '719 patent and those references that appear on the face of the '719 patent.

B. Anticipation and Obviousness

Defendant attaches Exhibits D-1 to D-11, which provide exemplary disclosures showing how the prior art anticipates and/or renders obvious the asserted claims of the '719 patent. These charts identify primary references, and in some cases, secondary references, and obviousness contentions. Defendant may rely on

any of the primary references identified in Exhibits D-1 to D-11 in combination with any reference identified in those exhibits in combination with any reference identified in those exhibits and Exhibit D-11. Defendant's anticipation contentions are presented in the following exhibits, each of which describes anticipation of one or more claims of the '719 patent by a primary reference:

Exhibit	Primary Reference
D- 1	US10589122B2 to Boyajian ("Boyajian")
D - 2	US 2020/0269065 to ("Broeng")
D - 3	US 2019/0030359 to Dijkstra ("Dijkstra")
D - 4	US 2006/0229689 to Ferguson ("Ferguson")
D - 5	US 2018/0008839 to Hamid ("Hamid")
D - 6	EP2923728A1 to Huout ("Huout")
D - 7	US 10632325 to Lim ("Lim")
D - 8	US 2011/0054573 to Mitchell ("Mitchell")
D - 9	US 2002/0198575 to Sullivan ("Sullivan")
D - 10	US 8425577 to Vargas ("Vargas")
D - 11	US 2020/0360714 to Shterzer ("Shterzer") US 2011/0054573 to Adam ("Adam") US 2015/0112411 to Beckman ("Beckman") US 7932482 to Norwood ("Norwood") US 2014/0071681 to Ghafoori ("Ghafoori") US 2014/0071681 to Schwarz ("Schwarz") EP 3232740B1 to Bevilacqua ("Bevilacqua") US 3648706 to Holzer ("Holzer") US 9314302 to Dougal ("Dougal") US 9533170 to Dye ("Dye") US 2019/0201711A1 to Brawn ("Brawn") US 20050075703A1 to Larsen ("Larsen") KR 200489354Y1 ("KR'354")

Defendant's obviousness contentions are also contained in Exhibits D-1 to D-11.

The U.S. Supreme Court in *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727

1 (2007) emphasized that inventions arising from ordinary innovation, ordinary skill,
2 or common sense should not be patentable. *Id.* at 1732, 1738, 1742-1743, 1746. A
3 patent claim may be obvious if the combination of elements was obvious to try or if
4 there existed at the time of the invention a known problem for which there was an
5 obvious solution encompassed by the patent's claims. When a work is available in
6 one field of endeavor, design incentives and other market forces can prompt
7 variations of it, either in the same field or a different one. If a person of ordinary
8 skill can implement a predictable variation, Section 103 of Title 35 likely bars its
9 patentability. *Id.* at 1740. The Court stated that courts should "look to interrelated
10 teachings of multiple patents; the effects of demands known to the design
11 community or present in the marketplace; and the background knowledge possessed
12 by a person having ordinary skill in the art, all in order to determine whether there
13 was an apparent reason to combine the known elements in the fashion claimed by
14 the patent at issue." *Id.* at 1740-41. *KSR* does not mandate evidence of a motivation
15 or suggestion to combine prior art references. *See TGIP, Inc. v. AT&T Corp.*, 527 F.
16 Supp. 2d 561, 580-81 (E.D. Tex. 2007). "[A] court can take account of the
17 inferences and creative steps that a person of ordinary skill in the art would employ"
18 to resolve the question of obviousness. *KSR*, 127 S. Ct. at 1741.

19 Based on all of these considerations, as further detailed in Exhibits D-1 to D-
20 11, persons of ordinary skill in the art would have combined the teachings of the
21 prior art references discussed and charted in those exhibits with teachings from the
22 same reference, with the knowledge of a person of skill in the art, and/or with
23 teachings from other prior art references as disclosed in Exhibits D-1 to D-11. The
24 combinations of these references would have rendered obvious to one of ordinary
25 skill in the art the subject matter of the asserted claims of the '719 patent. The
26 references identified in Exhibits D-1 to D-11 are analogous prior art to the subject
27 matter of the asserted claims and, for at least the reasons set forth below, are
28 properly combinable. Because these prior art references exist within a single field of

1 art, particularly one in which individuals in the field often shared and/or
2 collaborated on their work, it would have been obvious for a person of skill in the art
3 to look from one piece of prior art to another in order to find any missing
4 functionality they desired to implement. Therefore, these references provide
5 interrelated teachings and one of ordinary skill would look to the concepts in any of
6 these references when seeking to solve the problems purportedly addressed by the
7 '719 patent.

8 Numerous prior art references, including those identified in the attached
9 exhibits, reflect common knowledge and the state of the prior art before the earliest
10 claimed effective filing date of the '719 patent. As it would be unduly burdensome
11 to create detailed claim charts for all of the invalidating combinations, for at least
12 the reasons described in these invalidity contentions, it would have been obvious to
13 one of ordinary skill in the art to combine any of a number of prior art references,
14 including any combination of those identified in the attached exhibits, to meet the
15 limitations of the asserted claims of the '719 patent. Defendant's inclusion of
16 exemplary combinations, in view of the factors and motivations identified here, does
17 not preclude Defendant from identifying other invalidating combinations and/or
18 motivations as appropriate.

19 No showing of a specific motivation to combine prior art is required to
20 combine the references disclosed above and in the attached charts, because each
21 combination of art would have no unexpected results, and at most would simply
22 represent a known alternative to one of ordinary skill in the art. *See KSR*, 127 S. Ct.
23 at 1739-40 (rejecting the Federal Circuit's "rigid" application of the teaching,
24 suggestion, or motivation to combine test, instead espousing an "expansive and
25 flexible" approach). Indeed, the Supreme Court held that a person of ordinary skill
26 in the art is "a person of ordinary creativity, not an automaton" and "in many cases a
27 person of ordinary skill in the art will be able to fit the teachings of multiple patents
28 together like pieces of a puzzle." *Id.* at 1742. Nevertheless, in addition to the

1 information contained herein, Defendant hereby identifies additional motivations
2 and reasons to combine the cited art.

3 One or more combinations of the prior art references identified herein, with
4 itself, the knowledge of one of skill in the art, or with other references, would have
5 been obvious because these references would have been combined using: known
6 methods to yield predictable results; known techniques in the same way; a simple
7 substitution of one known, equivalent element for another to obtain predictable
8 results; and/or a teaching, suggestion, or motivation in the prior art generally. In
9 addition, it would have been obvious to combine the prior art references identified
10 above because there were only a finite number of predictable solutions and/or
11 because known work in one field of endeavor prompts variations based on
12 predictable design incentives and/or market forces either in the same field or a
13 different one. In addition, the combinations of the prior art references identified
14 above would have been obvious because the combinations represent the known
15 potential options with a reasonable expectation of success.

16 Additional evidence that there would have been a motivation or reason to
17 combine the prior art references identified above includes the interrelated teachings
18 of multiple prior art references; the effects of demands known to the design
19 community or present in the marketplace; the existence of a known problem for
20 which there was an obvious solution; the existence of a known need or problem in
21 the field of endeavor at the time of the invention; and the background knowledge
22 that would have been possessed by a person having ordinary skill in the art. For
23 example, the prior art references are generally directed to the same problems. Thus,
24 a skilled artisan seeking to solve these problems would look to these cited references
25 in combination.

26 Thus, the motivation or reason to combine the teachings of the prior art
27 references disclosed herein is found in the references themselves and in: (1) the
28 nature of the problems being solved; (2) the express, implied, and inherent teachings

1 of the prior art; (3) the knowledge of persons of ordinary skill in the art; (4) the fact
2 that the prior art is generally directed towards the same problems; and/or (5) the
3 predictable results obtained in combining the different elements of the prior art; (6)
4 the use of a known technique to improve similar devices, methods, or products in the
5 same way; (7) the predictable results obtained in applying a known technique to a
6 known device, method, or product ready for improvement; (8) the finite number of
7 identified predictable solutions that had a reasonable expectation of success; and (9)
8 known work in various technological fields that could be applied to the same or
9 different technological fields based on design incentives or other market forces.

10 It would have been obvious to combine any of the prior art in Exhibits D-1 to
11 D-11 because all of these references relate to devices and methods with limitations
12 that were well known to the skilled artisan prior to the '385 application.

13 A wide variety of techniques were known to the skilled artisan in the
14 development of light therapy systems prior to the filing of the '385 priority application.
15 In particular, as discussed below, each of the limitations of the asserted claims of the
16 '719 patent were known to the skilled artisan and available in the artisan's
17 "toolbox." Indeed, it would be simply a matter of design choice to draw from these
18 known techniques and combine them to render the asserted claim invalid.

19 ***Light Therapy Systems Using Red and Near Infrared (NIR) Light for***
20 ***Therapeutic Applications.*** Light Therapy systems with communicatively coupled
21 light devices, such as panels or light arrays, have been well known in the art for some
22 time. The physical benefits of light therapy, or photobiomodulation ("PBM") were
23 studied extensively prior to the priority application for the '719 patent. Many
24 publications and patents described these systems, their purposes, controls and other
25 features in detail. Only some of those patents and publications are discussed here.

26 Early prior art like *Holzer*, *Mori*, *Sullivan* and *Bansal* disclosed light
27 treatment apparatus and extensively discussed the benefits of PBM. *See e.g.*,
28 *Sullivan* at [0005-0026] (discussing "light emitting diodes emitting electromagnetic

1 radiation of various wavelengths (i.e., colors) for administering positive and
2 beneficial treatments to living organisms (including mammals) for injury, pain relief
3 and illness.”) *Dijkstra* also disclosed a “device for treating various external and
4 internal body conditions by using LED Light Therapy, Laser Light Therapy, Photo-
5 Bio-Modulation Therapy (PBMT), Photodynamic Therapy (PDT), UV based light
6 therapy and/or any other suitable light therapy.” [0001]

7 The benefits of red and near infra-red (“NIR”) light was well known for its
8 therapeutic properties well before the filing of the ’385 priority application. For
9 example, *Ferguson* discloses an LED panel front surface [that] is a uniform color
10 and includes an array of mounted infra-red LEDs. *Ferguson* at [0025]. *Hamid*
11 discloses “[a] photo-bio-stimulation device uses near infrared (NIR) laser
12 illumination of the scalp to promote hair growth with a lightweight user wearable
13 device.” *Hamid* at Abstract. *Huout* discloses a wide range of therapeutically
14 beneficial light wavelength including red and NIR. “Preferably, the light source
15 comprises an emission spectrum having a maximum emission wavelength chosen
16 from the wavelength ranges 400 nm to 440 nm, 590 nm to 650 nm and 810 nm to
17 850 nm.” *Huout* at [0026]. Moreover, *Mitchell* teaches an “emitter unit can include
18 an array of LEDs 106 or other emitters that emit infrared and/or near-infrared light
19 at a wavelength specific to the optic window of human tissue.” *Mitchell* at [0022].
20 *Sullivan* teaches a combination of red and NIR emitters for PBM: “LED's emitting
21 red light at 630 nm, 12 LED's emitting infrared (IR) light at 880 nm, and 12 LED's
22 emitting blue light at 470 nm.... The red, blue and IR light emitting LED's, as well
23 as their availability, are well known in the art and, therefore, are not explained
24 further.” *Sullivan* at [0056]. *Vargas* discloses “a skin treatment device, and more
25 particularly, to an apparatus for the application of red and near infra-red LED
26 phototherapy over large areas of a user's body.” *Vargas* at 1:11-13. *Lim* teaches the
27 use of both wavelength spectrums for therapeutic treatment and discloses an
28 “irradiation unit [] which is capable of generating light energy of at least one

1 preselected wavelength selected from the group consisting of near infrared red light
2 wavelengths and visible red light wavelengths.” *Lim* at 11:21-27. Many references
3 discussed in these contentions disclose the benefits of red and NIR therapy. *See,*
4 *e.g., Shterzer, Adam, Beckman, Holzer, Dougal, Dye, Brawn, Larsen, KR’354. See*
5 *Ex. D-11.* Thus, red and NIR light therapy were well known to a POSITA prior to
6 the filing of the ’385 priority application.

7 A POSITA seeking to develop a light-based therapy device would look to and
8 draw motivation from this established art and its teachings to incorporate red and
9 NIR light. As discussed above, these wavelengths of light have long been known to
10 provide healing benefits for all types of ailments. A POSITA would be acutely
11 aware of the healing properties of red and near infra-red light and would utilize these
12 wavelengths for those properties as a design choice dependent of the condition the
13 POSITA seeks to treat.

14 In particular, the ’385 priority application attempts to address shortcomings of
15 the prior art PMB with respect to the inadequate size requiring multiple sessions.
16 Many prior art references cited herein address this same problem. For example,
17 *Dijkstra* discloses a system where “[t]he first and the second light therapy devices
18 are identical to each other and are being used together to cover the maximum body
19 portion of the user at one time.” *Dijkstra* at [0096]. A POSITA would look to use
20 red and NIR light as the primary wavelengths for development of a therapy light
21 device based up the knowledge of these wavelength treatment effectiveness which
22 would result in a reduction in treatment sessions. *Boyajian* teaches a five panel
23 system with "lighted hinge" to reduce or eliminate optical dead spaces between
24 adjacent panels when the illuminator is bent into a certain configuration.” *Boyajian*
25 at Abstract. Because these references seek to solve the same problem discussed in
26 the ’385 priority application, a POSITA would be motivated to consult these
27 references for inspiration, teachings and general art in the field of Light Therapy
28 Systems Using Red and Near Infrared (NIR) Light.

Light Therapy Systems with Communicatively Coupled Light Devices. Light therapy systems with communicatively coupled light devices were also well known in the art. Many prior art PBM therapy systems taught light devices that were communicatively coupled together for treatment. The prior art teaches that multiple panels provide more irradiation coverage. For example, *Ferguson* discloses a multiple module light therapy device for therapeutic treatment noting “[r]ecent inventions have taken the use of light as a therapeutic device from the realm of science-fiction to an actual science.” *Ferguson* at [0006]. “One embodiment of the current invention comprises two LED panels and a pedestal. Each LED panel includes a front surface and a back surface.” *Id.* at [0016]. *Baaijens* discloses “various embodiments of the approach disclosed herein are particularly suited for a lighting system that is utilized for therapeutic purposes such as treating jetlag, social jetlag, seasonal depression, Surgery recovery, etc[,]” 8:6-10, and teaches that the multiple fixtures can communicate via integrated controllers. “[I]n some embodiments multiple lighting fixtures 110 may be provided, each having a controller integrated therein and controllers across multiple lighting fixtures 110 may optionally communicate with one another. Also, for example, in some embodiments multiple lighting fixtures 110 may be provided, with one having a controller integrated therein that controls multiple lighting fixtures 110 via communication with those other lighting fixtures.” *Baaijens* at 9:2-9. *Huout* notes “[p]rior art phototherapy equipment for professional use is already known, comprising a support mounted on a base with rollers and a head articulated on the support comprising four adjacent luminous panels” [0010] and discloses “equipment for treating a region of the body of a user by phototherapy.” *Huout* at [0013]. *Boyajian* specifically discuss the benefits of multiple device geometry to increase the irradiation areas and propose structure that “uses a plurality of panels, wherein at least one panel is of a different width than the other panels. This panel is positioned between two other panels and, in a way, acts as a “lighted hinge” to provide enough

1 “fill-in” light to reduce or eliminate the optical dead spaces when the panels are bent
2 into a certain configuration. Preferably, five panels in total are used to provide for an
3 optimal increase in the total size of possible treatment areas.” *Boyajian* at 2:62-3:3.
4 Thus the prior art was replete with multiple light devices in communication with one
5 another. Notably, a POSITA would understand that because the light devices were
6 able to communicate, they would be *a priori* “communicatively coupled” and that a
7 communication module must be present in each light device for coupling to be
8 established. Many references disclose multiple communicatively coupled devices.
9 *See, e.g., Dijkstra, Vargas, , Adam, Beckman, Schterzer, Lim, Hamid, Holzer,*
10 *Houot, Broeng, Dougal, Dye, Brawn, Larsen, KR’354. See Ex. D-11.*

11 Moreover, the existence of “Light Therapy Systems with Commutatively
12 Coupled Light Devices” was conclusively established in the prior art during the
13 prosecution history of the ’635 patent and provides substantial evidence of the state
14 of the art at the time the ’385 patent priority application was filed. During the initial
15 prosecution of the ’635 patent, the original claims were rejected in view of the
16 teachings of *Mitchell*. In particular, the examiner argued that *Mitchell* taught a red
17 light and near infra-red light therapy system with multiple light therapy devices each
18 having a communication module (wired or wireless) communicatively coupling the
19 light therapy devices. See MRL00000147-371, 02.15.2009 Non-Final Office action
20 at 4. In response to this rejection, the Patent Applicant argued, *inter alia*, that
21 *Mitchell* did not disclose a communication module located within a housing or a first
22 communication module configured to communicate directly with a second
23 communication module. *Id.*, 03.18.2009 Remarks at 11-12. The Examiner rejected
24 this argument noting that “the wired or wireless communication described in
25 paragraph [0030] satisfies the claim limitations, as the claim only requires direct
26 communication, rather than a direct connection the wired or wireless communication
27 described in paragraph [0030] satisfies the claim limitations, as the claim only
28 requires direct communication, rather than a direct connection.” *Id.*, 05.24.2019

1 Final Office Action at 5-6. The Patent Applicant capitulated to the Examiner and
2 amended the claims to include a control panel with input buttons and indicator
3 lights. *Id.*, 06.14.2019 Response to Final Office Action at 3-4.

4 Thus, the prosecution history the '635 patent as well as numerous prior art
5 reference clearly demonstrate that *light therapy systems with multiple*
6 *communicatively coupled light therapy devices housing a plurality of red light and*
7 *near infrared light lights including communication modules (wired or wireless)*
8 were well known at the time of the filing of the '385 priority application.

9 A POSITA looking to develop a light-based therapy device would look to this
10 established art and its teachings to design multiple communicatively connected light
11 emitting devices. As discussed, '385 priority application attempts to address
12 shortcomings of the prior art PMB with respect to the inadequate size requiring
13 multiple sessions. Many prior art references cited herein address this same problem
14 by disclosing systems using of multiple devices to allow for increased treatment
15 areas size. *See supra*. Because increased treatment area size requires multiple light
16 devices, a POSITA would look to the coupling techniques of centralized power
17 input and control taught by the prior art discussed about. This includes analog,
18 digital and remote control that were well known in the art. Moreover, coupling and
19 decentralized addressable techniques have long been known in the light control art
20 and would be within the skilled artisan's design choice toolbox. *See*

21 <https://www.dali-alliance.org/dali/>

22 ***Light Therapy Devices with Complex Control Panels with Indicator lights,***
23 ***Switches and Buttons.*** Many prior art publications and patents disclosed separate
24 complex multi- control panels, one associated with each light therapy device. These
25 prior art control panels were known to incorporate indicator lights, switches and
26 buttons to control the operation, timing, wavelength emission and power input. The
27 prior art exposed during the prosecution history is evidence of the state of the art of
28 control panels. Subsequent to the issuance of the '635 patent, *ex parte*

1 reexamination was requested and instituted. In particular, the Patent Office found
2 that *Dijkstra, Vargas, Broeng, Sullivan and Shterzer* all disclosed multiple light
3 therapy devices with separate control panel with indicator lights. MRL00003014 –
4 3444 at 4. In particular, the examiner found that *Dijkstra* disclosed “first and second
5 light therapy devices, each with its own control panel and being operated in
6 synchrony.” *Id.* at 5. *Vargas* disclosed “first and second light sources that are
7 operated by two control panels.” *Id.* at 6. “Broeng teaches that multiple devices can
8 be used at [0299] and hence appears to teach first and second light sources that are
9 operated by two control panels, one associated with each device.” *Broeng.* at 7.
10 *Sullivan* teaches first and second light sources that are operated by a processor 29
11 with a control panel (switched for time, frequency, pattern, etc.). *Sullivan* at 8.
12 Finally, *Shterzer* teaches first and second light sources 104A-104N that are each
13 operated by its own control unit 134. *Shterzer* at [0165].

14 Moreover, *Adams* (in combination with *Mitchell*) was found by the Patent
15 Office to disclose indicator lights on a control panel during prosecution of the
16 related ‘495 patent. MRL00000372-612, 12.06.2019 First Office Action. In
17 particular *Adams*, “discloses a light therapy device with a plurality of lights and a
18 control panel with an input button and two first indication lights. *See id.* at [0051]
19 ,[0066] (describing multiple indication lights). While the Patent Applicant
20 responded that *Adams* did not specifically disclose a control panel, the Examiner
21 reasoned that “because Adam discloses a first input button and a first pair of
22 indication lights, Adam provides the control panel as claimed.” MRL00000372-
23 612, 12.27.2019 Interview Summary at 1. Like *Adams*, *Norwood* provides an
24 explicit disclosure of digital control logic to control the characteristics of the light
25 emission. *Norwood* at 23:20-25-61 (discussing control logic and microprocessor
26 control). *Norwood* teaches that multiple device control can be achieved through the
27 general-purpose computer programming. As further examples, *Dijkstra* and *Broeng*
28 disclose the use of remote devices, such as smartphones, to control light therapy

1 devices. For example, *Dijkstra* teaches: “Referring to FIG. 5, the light therapy
2 system 100 comprises of a remote device, *i.e.*, a mobile device 520 held by a user
3 and a light therapy device 200 according to a second embodiment of the present
4 disclosure.” *Dijkstra* at [0093]. *Dijkstra* teaches that the mobile device 520 is
5 communicatively coupled to the light therapy device 200 via NFC, WI-FI, Bluetooth
6 or any other wired or wireless communication means,” and that “the display of the
7 mobile device 520 acts as a display unit 160 for the light therapy device 20.” *Id.*
8 “The mobile device 520 is having a software application installed in it. The software
9 application provides a user interface 430 where a user can find multiple options to
10 select in order to communicate with the light therapy device 200. Once the mobile
11 device is connected with the light therapy device 200 the user is able to control the
12 light therapy device 200 via the user interface.” *Id.* Similarly, *Broeng* teaches the use
13 of remote devices to control the light therapy device. “In this regard, it is noted that
14 in certain embodiments the controller is integral to the device (e.g., incorporated into
15 the housing of the device), while in other embodiments, the controller may be
16 remote from the device and coupled by a control cable or cables ((*see, e.g.*, 109 in
17 the illustrative, but non-limiting embodiments shown in FIG. 1). In other
18 embodiments the controller may control the phototherapy device through a radio
19 link, a light (e.g., infra-red link), via a Bluetooth link, and via a WiFi link. In certain
20 embodiments the controller comprises an App on a cell phone, tablet, or computer.”
21 *Broeng* at [0267].

22 Thus, light therapy devices with control panels with indicator lights, switches
23 and buttons were well known to a POSITA prior to the to the filing of the '385
24 priority application. *See* Ex. D-11.

25 A POSITA looking to develop a light therapy device would look to this
26 established art and its teachings of control system implementation. As discussed,
27 '385 priority application attempts to address shortcomings of the prior art PMB with
28 respect to the inadequate size requiring multiple sessions. Many prior art references

1 cited herein address this same problem by disclosing systems using of multiple
2 devices to allow for increased treatment areas size. *See supra*. Because increased
3 treatment area size requires multiple light devices to be controlled to provide the
4 sought-after treatment, a POSITA would look to the centralized techniques of
5 controlling power input and control to the multiple devices as taught by the prior art
6 discussed about. This includes analog, digital, and remote control. These coupling
7 techniques have long been known in the light control art and would be within the
8 skilled artisan's design choice toolbox. Moreover the skilled artisan would be aware
9 of differing methods to do so, including indicator lights, buttons, physical switches
10 for software based general purpose computer control. The nature of the NIR light
11 therapy itself requires a solution that provides user with an indication that the NIR
12 lighting was on because it was not visible to the naked eye. These types of solutions
13 are plentiful in the prior art to which the POSITA would look in evaluating design
14 choices.

15 ***Light Therapy Devices with Lead and Follow Operation and Mode Select***
16 ***Switches.*** Lead and follow operation with mode select switches for light therapy
17 devices was also well known in the prior art before the priority date of the '385
18 patent application. Commonly referred to in the art as master-slave control, the '385
19 priority patent application describes lead and follow operation: "To ensure that the
20 light therapy devices 12 operate in the same way, some embodiments feature a lead
21 mode 70 and a follow mode 80. A light therapy device 12 that is configured to be in
22 the lead mode 70 may send operation instructions to all other light therapy devices
23 12 in the system 10. A light therapy device 12 that is configured to be in the follow
24 mode 80 may receive operation instructions from a light therapy device 12 that is in
25 the lead mode 70." '635 patent at 7:38-45. When the claims of the original '635
26 patent were found unpatentable over *Dijkstra* in view of *Norwood* in the '635 patent
27 reexamination, the Applicant accepted that the prior art disclosed its lead and follow
28 operation controlled by a mode select switch and chose to amend the claims to

1 include “lead, follow *and neutral* mode operational capabilities” rather than contest
2 the prior art’s disclosures. MRL00003014-3444, 02.09.2022 *Ex Parte* Notice of
3 Intent to Issue Reexamination Certificate at 2 (emphasis added). Indeed, the patent
4 owner described neutral mode as “key novel aspect that was indicated as allowable
5 over the [prior] art.” MRL00003014-3444, 12.06.2021 Agenda for Examiner
6 Interview on December 2, 2021 at 3 (Remarks). Thus, in choosing not to contest the
7 prior art disclosing lead and follow operation and relying on the “novelty” of neutral
8 mode, the patent owner admitted that lead and follow operation was known and
9 disclosed. Given the state of the art discussed below, this admission is clearly
10 warranted and supported.

11 For example, during the reexamination of the ‘495 patent, the concept of a
12 system with two light therapy devices each able to be switched to either of a lead
13 mode and a follow mode was found to have been disclosed in the prior art.
14 10.07.2021 Order granting Reexamination; Request for *Ex Parte* Reexamination at
15 Ground 5, pp. 54-67. In particular, the Patent Office found that *Broeng, Beckman,*
16 *Ferguson, Lim, Dijkstra* and *Norwood*, alone or in combination invalidated the
17 claims directed to two light therapy devices each able to be switched to either of a
18 lead mode and a follow mode. *Id. Dijkstra* explicitly disclosed master-slave
19 operation among the light therapy devices and *Norwood* detailed the control of the
20 master-slave operation. “Dijkstra teaches first and second light therapy systems that
21 are operated in synchrony and can be used in a master/slave configuration, while
22 Norwood teaches a switching arrangement for master/slave selection.” *Id.* at 8.
23 Indeed, in during the subsequent prosecution of the ‘172 patent application which
24 claims priority to the ‘385 patent application, the applicant *admitted and confirmed*
25 that “Dijkstra and Norwood both disclose master/save mode[.]” MRL00002240-
26 2934, 09.27.2022 Reply at 15.

27 Many prior art references disclose lead follow operation described as master
28 slave functionality. For example, *Ferguson* discloses a lead-follow operation as a

1 master-slave arrangement between its two panels. “Included on one of the LED
2 panels' one or more side surfaces is a power input mechanism, an on/off push
3 button, and a power output. This is the master panel. Power is supplied from a
4 power supply to the power input mechanism. The one or more side surfaces of the
5 other LED panel in the current embodiment includes only a power input. This is the
6 slave panel.” *Ferguson* at [0025]. *Huout* is another excellent example of master
7 slave control when it teaches “centralizing the control means in a single ‘master’
8 module, it is possible to control all the other ‘slave’ modules simultaneously.”
9 *Huout* at [0015]

10 Thus, Light Therapy Devices with Lead and Follow Operation and Mode Select
11 Switches were well known to a POSITA prior to the to the filing of the '385 priority
12 application. *See* Ex. D-11.

13 A POSITA looking to develop a light therapy device would look to this
14 established art and its teachings of control system implementation. As discussed, the
15 '385 priority application attempts to address shortcomings of the prior art PMB with
16 respect to the inadequate size requiring multiple sessions. Many prior art references
17 cited herein address this same problem by disclosing systems using multiple devices
18 to allow for increased treatment area size. *See supra*. Because increased treatment
19 area size requires multiple light devices to be controlled to provide the sought-after
20 treatment, a POSITA would look to the centralized techniques of controlling power
21 input, lead and follow operation, and switching taught by the prior art discussed
22 above. The desire for a multi-device system would motivate a POSITA to look for
23 simple control implementation which would lead the POSITA to consider the
24 centralized master-slave control technique long used in light system design. These
25 control techniques have long been known in the light control art and would be
26 within the skilled artisan's design choice “toolbox.” Moreover the skilled artisan
27 would be aware of differing methods to do so, including physical mode switches or
28 software-based switching for general purpose computer control. These types of

1 solutions are plentiful in the prior art to which the POSITA would look in evaluating
2 design choices.

3 Defendant incorporates by reference prior art from the prosecution histories
4 and background sections of the '719 patent. Defendant expects to rely on the
5 testimony of one or more expert witnesses and documents referenced by those
6 expert witnesses in support of these contentions and incorporate those forthcoming
7 expert reports as if fully set forth herein.⁴

8 Defendant contends that there are no secondary considerations of non-
9 obviousness evidencing the validity of any of the asserted claims. Secondary
10 considerations of non-obviousness, also referred to as objective indicia of non-
11 obviousness, “can include copying, long felt but unsolved need, failure of others,
12 commercial success, unexpected results created by the claimed invention,
13 unexpected properties of the claimed invention, licenses showing industry respect
14 for the invention, awards or other industry praise for the invention, and skepticism
15 of skilled artisans before the invention.” *Power Integrations, Inc. v. Fairchild*
16 *Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1368 (Fed. Cir. 2013). “A nexus between
17 the merits of the claimed invention and evidence of secondary considerations is
18 required in order for the evidence to be given substantial weight in an obviousness
19 decision.” *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 668 (Fed. Cir. 2000). Moreover,
20 even if a nexus exists, secondary considerations of non-obviousness “simply cannot
21 overcome [a] strong prima facie showing of obviousness.” *Sundance, Inc. v.*
22 *DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1368 (Fed. Cir. 2008). Plaintiff has not
23 established the existence of any objective indicia of non-obviousness or secondary
24 considerations. Defendant reserves the right to supplement their contentions to
25 respond to any such evidence should Plaintiff identify any. While discovery in this
26 case is ongoing, and Defendant’s investigation continues (which will include expert
27

28 ⁴ All such expert reports and testimony will be produced and provided pursuant to the
applicable deadlines in the Court’s Scheduling Order (ECF #034).

discovery), to the extent Plaintiff contends that one or more asserted claims is not obvious based on secondary considerations recognized by relevant authority Defendant contends such allegations are without merit. For example, Plaintiff has provided no evidence of copying of the purported inventions of the asserted claims. Similarly, Plaintiff has provided no evidence of any failure of others to realize any purported inventions of the asserted claims, or any evidence of any long felt but unsolved need solved by the purported inventions of the asserted claims. *Id.* To the contrary, the lack of novelty and widespread availability of PMB light therapy devices as demonstrated by the prior art is contrary evidence of any long-felt need for the purported inventions of the asserted claims.

Plaintiff also has not identified any evidence that the purported inventions of the asserted claims have enjoyed any commercial success. To the extent that Plaintiff claims that sales of any accused products constitutes commercial success, Plaintiff has not identified any evidence of any nexus between the claimed invention and such alleged commercial success. Moreover, any commercial success of the accused products may be due to factors other than the merits of the asserted claims, including non-patented features or functionalities, marketing efforts or other financial or economic incentives related to the sale or distribution of the accused products. Plaintiff also has provided no evidence of unexpected results or unexpected properties in the purported inventions of the asserted claims. *Id.* Additionally, there is no evidence of any licenses showing industry respect for the purported inventions of the asserted claims, and also no evidence of any awards or other industry praise for any purported inventions of the asserted claims. Finally, Plaintiff has provided no evidence of any skepticism of skilled artisans prior to purported inventions of the asserted claims; to the contrary, the prior art identified herein establishes not only a lack of skepticism but an appreciation that the purported inventions of the asserted claims were known to those of skill in the art.

1 **E. Other Invalidity Grounds**

2 Defendant hereby identify grounds of invalidity based on (1) lack of written
3 description under 35 U.S.C. § 112, first paragraph (pre-AIA); (2) lack of enablement
4 under 35 U.S.C. § 112, first paragraph (pre-AIA); (3) indefiniteness under 35 U.S.C.
5 § 112, second paragraph (pre-AIA), and (4) lack of patentable subject matter under
6 35 U.S.C. § 101. These contentions shall not be construed as an admission that any
7 claim construction advanced by Defendant in this case is in any way inconsistent,
8 flawed, or erroneous. Nor should these contentions prevent Defendant from
9 advancing claim construction and/or non-infringement positions in lieu of, or in
10 addition to, invalidity positions. Further, these contentions shall not be construed as
11 an admission of or acquiescence to Plaintiff's purported construction of the claim
12 language or of other positions advanced by complainant during the course of this
13 litigation. Defendant's Invalidity Contentions under 35 U.S.C. § 112 may depend, in
14 part, on the Court's claim construction, as well as Plaintiffs' alleged scope of the
15 '719 Asserted Claims. Consequently, Defendant only identifies the issues under 35
16 U.S.C. § 112 of which it is presently aware.

17 **1. Enablement and/or Written Description Pursuant to 35**
18 **U.S.C. 112, first paragraph (pre-AIA)**

19 The '719 patent does not provide sufficient written description to establish
20 that the alleged inventors were in possession of the alleged inventions recited in
21 certain of the Asserted Claims at the time the '719 patent was filed. *Ariad Pharms.,*
22 *Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). In other words, the
23 applicants did not describe their purported inventions in a manner that "reasonably
24 conveys to those skilled in the art that the inventor had possession of the claimed
25 subject matter as of the filing date." *Id.* The specification of the '719 patent also
26 does not enable one of ordinary skill in the art to make and/or use certain recited
27 elements of the '719 Asserted Claims without undue experimentation.

28 To the extent the following limitations are definite (under 35 U.S.C. § 112,

second paragraph), the '719 patent fails to sufficiently describe or enable them as required by 35 U.S.C. § 112, first paragraph:

“performs operations as instructed” (claim 1)

2. Indefiniteness Pursuant to 35 U.S.C. 112

Several of the '719 Asserted Claims are invalid because they fail to inform those skilled in the art about the scope of the alleged invention with reasonable certainty and are indefinite under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter the applicants regard as their alleged invention.

Certain Asserted Claims of the '719 patent are invalid as indefinite due to the following limitations which fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention:

““performs operations as instructed” (claim 1)

VII. U.S. PATENT NO. 11,033,752

A. Relevant Prior Art

Defendant contends that the prior art references identified in Defendant's contentions anticipate or render obvious the asserted claims of the '752 patent. Based on the information reasonably available to Defendant, the priority date of the asserted claims of the '752 patent is no earlier than October 11, 2018, the filing date of the application no. 16/167,385 (the “'385 application”).

The '752 patent admits that photobiomodulation was known in the art . The backgrounds notes “[p]hotobiomodulation therapy (or light therapy) is a therapeutic technique that uses low-level wavelengths of light to improve health and treat a variety of health conditions, including skin issues, such as wrinkles, scars, and persistent wounds, among many other conditions. Similar to how plants use sunlight to heal and grow, humans and animals are able to harness these wavelengths of light and turn them into cellular energy. This treatment stimulates the body's natural healing processes.” 1:21-29. The '752 observes that although “[c]urrently, there are

a number of photobiomodulation therapy devices available on the market. However, many of these devices are too small and require multiple sessions to treat large areas. As a result, there is a need for a photobiomodulation therapy system that can treat several areas in fewer treatments.”1:30-35

Below, Defendant lists some of the prior art cited in these contentions:

3. Patents and Printed Publications

Bates Number Begin	Bates Number End	Prior Art Reference
MRL00004067	MRL00004081	DE7638568U1
MRL00004082	MRL00004089	DE202012012004U1
MRL00004090	MRL00004104	DE7638568U1
MRL00004105	MRL00004109	English Translation of DE763856
MRL00004110	MRL00004116	CN205924721U
MRL00004117	MRL00004121	English Translation of CN205924721U U
MRL00004122	MRL00004139	FR2917299A1
MRL00004140	MRL00004149	K5 BOOK WEB 2016 new
MRL00004150	MRL00004182	Mouser Racks and enclosures
MRL00004183	MRL00004186	US1617028
MRL00004187	MRL00004201	US4095113
MRL00004202	MRL00004208	US4844069
MRL00004209	MRL00004216	US5733032
MRL00004217	MRL00004229	US5996728
MRL00004230	MRL00004244	US6896693
MRL00004245	MRL00004292	US9227082
MRL00004293	MRL00004307	US10064940
MRL00004308	MRL00004322	US10363434
MRL00004323	MRL00004341	US20040008523A1
MRL00004342	MRL00004351	US20070129777A1
MRL00004352	MRL00004373	US20120104977A1
MRL00004374	MRL00004384	US20120170264A1
MRL00004385	MRL00004393	US20150307332A1
MRL00004394	MRL00004405	US20160278304A1
MRL00004406	MRL00004436	US20190282826A1
MRL00004437	MRL00004479	CA3059989A1
MRL00004480	MRL00004492	EP2923728A1
MRL00004493	MRL00004505	EP2923728A1
MRL00004506	MRL00004516	English Translation of EP2923728
MRL00004517	MRL00004532	English Translation of FR3014322B1

1	Bates Number Begin	Bates Number End	Prior Art Reference
2	MRL00004533	MRL00004548	EP1664621B1
3	MRL00004549	MRL00004564	EP3001777A1
4	MRL00004565	MRL00004570	EP3232740B1
5	MRL00004571	MRL00004597	KR101715102B1
6	MRL00004598	MRL00004619	KR200488956Y1
7	MRL00004620	MRL00004641	KR200489354Y1
8	MRL00004642	MRL00004649	KR20090055891A
9	MRL00004650	MRL00004655	English translation of KR20090055891
10	MRL00004656	MRL00004664	KR20100009542U
11	MRL00004665	MRL00004672	English Translation of KR20100009542U
12	MRL00004673	MRL00004682	US3648706
13	MRL00004683	MRL00004799	US6166496
14	MRL00004800	MRL00004835	US7932482
15	MRL00004836	MRL00004846	US8425577
16	MRL00004847	MRL00004864	US9314302
17	MRL00004865	MRL00004883	US9491833
18	MRL00004884	MRL00004900	US9526860
19	MRL00004901	MRL00004921	US9533170
20	MRL00004922	MRL00004936	US10589122
21	MRL00004937	MRL00004988	US10632325
22	MRL00004989	MRL00005068	US10881550
23	MRL00005069	MRL00005112	US11058889
24	MRL00005113	MRL00005143	US11141219
25	MRL00005144	MRL00005180	US11395925
26	MRL00005181	MRL00005193	US20020198575A1
27	MRL00005194	MRL00005203	US20040068305A1
28	MRL00005204	MRL00005220	US20050075703A1
	MRL00005221	MRL00005235	US20060229689A1
	MRL00005236	MRL00005260	US20070217199A1
	MRL00005261	MRL00005326	US20100121420A1
	MRL00005327	MRL00005339	US20110054573A1
	MRL00005340	MRL00005357	US20140071681A1
	MRL00005358	MRL00005384	US20150112411A1
	MRL00005385	MRL00005392	US20150134032A1
	MRL00005393	MRL00005411	US20150224332A1
	MRL00005412	MRL00005426	US20180008839A1
	MRL00005427	MRL00005436	US20180296854A1
	MRL00005437	MRL00005459	US20190030359A1
	MRL00005460	MRL00005487	US20190142636A1

Bates Number Begin	Bates Number End	Prior Art Reference
MRL00005488	MRL00005690	US20190201711A1
MRL00005691	MRL00005716	US20190269934A1
MRL00005717	MRL00005733	US20200001105A1
MRL00005734	MRL00005779	US20200269065A1
MRL00005780	MRL00005823	US20200360714A1
MRL00005824	MRL00005828	USD679440
MRL00005829	MRL00005839	CN108187235A
MRL00005840	MRL00005848	English Translation of CN108187235A
MRL00005849	MRL00005854	CN200963440Y
MRL00005855	MRL00005861	CN204364686U
MRL00005862	MRL00005868	CN204364686U
MRL00005869	MRL00005869	English Translation of Abstract of CN204364686U
MRL00005870	MRL00005878	DE202016101699U1
MRL00005879	MRL00005884	English Translation of DE202016101699U1
MRL00005885	MRL00005947	US20050085875A1
MRL00005948	MRL00005985	US20080269849A1
MRL00005986	MRL00006015	WO2017066270A1
MRL00006016	MRL00006079	English Translation of EP3490671A1
MRL00006080	MRL00006103	English Translation of KR101715102B1
MRL00006104	MRL00006117	English Translation of KR200488956Y1

Moreover, Defendant hereby incorporates by reference all the references cited during the prosecution of the '752 patent and those references that appear on the face of the '752 patent.

B. Anticipation and Obviousness

Defendant attaches Exhibits E-1 to E-9, which provide exemplary disclosures showing how the prior art anticipates and/or renders obvious the asserted claims of the '752 patent. These charts identify primary references, and in some cases, secondary references, and obviousness contentions. Defendant may rely on any of the primary references identified in Exhibits E-1 to E-9 in combination with any reference identified in those exhibits in combination with any reference identified in those exhibits and Exhibit E-9. Defendant's anticipation contentions are presented in the following exhibits, each of which describes anticipation of one or more claims of

the '752 patent by a primary reference:

Exhibit	Primary Reference
E-1	US2019/0282826 to Bellini (“Bellini”)
E-2	US9416551 to Hall (“Hall”)
E-3	US1617028 to Rekar (“Rekar”)
E-4	US9353924 to Scarlata (“Scarlata”)
E-5	US5996728 Stark (“Stark”)
E-6	US 2005/0085875 to Van Zuylen (“Van Zuylen”)
E-7	US9852666B2 to Ward (“Ward”)
E-8	US4905113 to Wolff (“Wolff”)
E-9	US 2006/0229689 to Ferguson (“Ferguson”) US20160278304A1 to Elsegood (“Elsegood”) KR 200489354Y1 (“KR ’354”) KR20100009542 (“KR ’542”) Kind LED Grow Lights K5 Series (“K5 Series”)

Defendant’s obviousness contentions are also contained in Exhibits E-1 to E-9.

The U.S. Supreme Court in *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007) emphasized that inventions arising from ordinary innovation, ordinary skill, or common sense should not be patentable. *Id.* at 1732, 1738, 1742-1743, 1746. A patent claim may be obvious if the combination of elements was obvious to try or if there existed at the time of the invention a known problem for which there was an obvious solution encompassed by the patent’s claims. When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, Section 103 of Title 35 likely bars its patentability. *Id.* at 1740. The Court stated that courts should “look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed

1 by a person having ordinary skill in the art, all in order to determine whether there
2 was an apparent reason to combine the known elements in the fashion claimed by
3 the patent at issue.” *Id.* at 1740-41. *KSR* does not mandate evidence of a motivation
4 or suggestion to combine prior art references. *See TGIP, Inc. v. AT&T Corp.*, 527 F.
5 Supp. 2d 561, 580-81 (E.D. Tex. 2007). “[A] court can take account of the
6 inferences and creative steps that a person of ordinary skill in the art would employ”
7 to resolve the question of obviousness. *KSR*, 127 S. Ct. at 1741.

8 Based on all of these considerations, as further detailed in Exhibits E-1 to E-9,
9 persons of ordinary skill in the art would have combined the teachings of the prior
10 art references discussed and charted in those exhibits with teachings from the same
11 reference, with the knowledge of a person of skill in the art, and/or with teachings
12 from other prior art references as disclosed in Exhibits E-1 to E-9. The combinations
13 of these references would have rendered obvious to one of ordinary skill in the art
14 the subject matter of the asserted claims of the ’752 patent. The references identified
15 in Exhibits E-1 to E-9 are analogous prior art to the subject matter of the asserted
16 claims and, for at least the reasons set forth below, are properly combinable.

17 Because these prior art references exist within a single field of art, particularly one
18 in which individuals in the field often shared and/or collaborated on their work, it
19 would have been obvious for a person of skill in the art to look from one piece of
20 prior art to another in order to find any missing functionality they desired to
21 implement. Therefore, these references provide interrelated teachings and one of
22 ordinary skill would look to the concepts in any of these references when seeking to
23 solve the problems purportedly addressed by the ’752 patent.

24 Numerous prior art references, including those identified in the attached
25 exhibits, reflect common knowledge and the state of the prior art before the earliest
26 claimed effective filing date of the ’752 patent. As it would be unduly burdensome
27 to create detailed claim charts for all of the invalidating combinations, for at least
28 the reasons described in these invalidity contentions, it would have been obvious to

1 one of ordinary skill in the art to combine any of a number of prior art references,
2 including any combination of those identified in the attached exhibits, to meet the
3 limitations of the asserted claims of the '752 patent. Defendant's inclusion of
4 exemplary combinations, in view of the factors and motivations identified here, does
5 not preclude Defendant from identifying other invalidating combinations and/or
6 motivations as appropriate.

7 No showing of a specific motivation to combine prior art is required to
8 combine the references disclosed above and in the attached charts, because each
9 combination of art would have no unexpected results, and at most would simply
10 represent a known alternative to one of ordinary skill in the art. *See KSR*, 127 S. Ct.
11 at 1739-40 (rejecting the Federal Circuit's "rigid" application of the teaching,
12 suggestion, or motivation to combine test, instead espousing an "expansive and
13 flexible" approach). Indeed, the Supreme Court held that a person of ordinary skill
14 in the art is "a person of ordinary creativity, not an automaton" and "in many cases a
15 person of ordinary skill in the art will be able to fit the teachings of multiple patents
16 together like pieces of a puzzle." *Id.* at 1742. Nevertheless, in addition to the
17 information contained herein, Defendant hereby identifies additional motivations
18 and reasons to combine the cited art.

19 One or more combinations of the prior art references identified herein, with
20 itself, the knowledge of one of skill in the art, or with other references, would have
21 been obvious because these references would have been combined using: known
22 methods to yield predictable results; known techniques in the same way; a simple
23 substitution of one known, equivalent element for another to obtain predictable
24 results; and/or a teaching, suggestion, or motivation in the prior art generally. In
25 addition, it would have been obvious to combine the prior art references identified
26 above because there were only a finite number of predictable solutions and/or
27 because known work in one field of endeavor prompts variations based on
28 predictable design incentives and/or market forces either in the same field or a

1 different one. In addition, the combinations of the prior art references identified
2 above would have been obvious because the combinations represent the known
3 potential options with a reasonable expectation of success.

4 Additional evidence that there would have been a motivation or reason to
5 combine the prior art references identified above includes the interrelated teachings
6 of multiple prior art references; the effects of demands known to the design
7 community or present in the marketplace; the existence of a known problem for
8 which there was an obvious solution; the existence of a known need or problem in
9 the field of endeavor at the time of the invention; and the background knowledge
10 that would have been possessed by a person having ordinary skill in the art. For
11 example, the prior art references are generally directed to the same problems. Thus,
12 a skilled artisan seeking to solve these problems would look to these cited references
13 in combination.

14 Thus, the motivation or reason to combine the teachings of the prior art
15 references disclosed herein is found in the references themselves and in: (1) the
16 nature of the problems being solved; (2) the express, implied, and inherent teachings
17 of the prior art; (3) the knowledge of persons of ordinary skill in the art; (4) the fact
18 that the prior art is generally directed towards the same problems; and/or (5) the
19 predictable results obtained in combining the different elements of the prior art; (6)
20 the use of a known technique to improve similar devices, methods, or products in the
21 same way; (7) the predictable results obtained in applying a known technique to a
22 known device, method, or product ready for improvement; (8) the finite number of
23 identified predictable solutions that had a reasonable expectation of success; and (9)
24 known work in various technological fields that could be applied to the same or
25 different technological fields based on design incentives or other market forces.

26 It would have been obvious to combine any of the prior art in Exhibits E-1 to
27 E-9 because all of these references relate to devices and methods with limitations
28 that were well known to the skilled artisan prior to the '385 application.

1 A wide variety of techniques were known to the skilled artisan in the
2 development light therapy systems prior to the filing of the '385 priority application.
3 In particular, as discussed below, each of the limitations of the claims of the '752
4 patent were known to the skilled artisan and available in the artisan's "toolbox."
5 Indeed, it would be simply a matter of design choice to draw from these known
6 techniques and combine them to render the asserted claim invalid.

7 ***Photobiomodulation Systems for Therapeutic Applications.*** Light Therapy
8 systems with multiple light devices, such as panels or light arrays, for were well
9 known in the art for some time. The physical benefits of light therapy, or
10 photobiomodulation ("PBM") were studied extensively prior to the priority
11 application for the '752 patent. Many publications and patents described these
12 systems, their purposes, controls and other features in detail. Only some of those
13 patents and publications are discussed here.

14 The patent itself recognizes that prior art existence of red-light therapy and its
15 benefits, noting "Photobiomodulation therapy (or light therapy) is a therapeutic
16 technique that uses low-level wavelengths of light to improve health and treat a
17 variety of health conditions, including skin issues, such as wrinkles, scars, and
18 persistent wounds, among many other conditions. Similar to how plants use sunlight
19 to heal and grow, humans and animals are able to harness these wavelengths of light
20 and turn them into cellular energy. This treatment stimulates the body's natural
21 healing processes." 1:21-29.

22 Early prior art disclosed light treatment apparatus and extensively discussed
23 the benefits of PBM. *Bellini* discloses "a configurable phototherapeutic device or
24 system. The phototherapeutic device or system comprises a plurality of light
25 emitting devices adaptably connected to one another or to a support structure. The
26 plurality of light emitting devices is configured for providing concurrent
27 phototherapy to a plurality of anatomical features of a subject. The configurable
28 phototherapeutic device or system also comprises a central controller which is

1 operatively connected to the light emitting devices and each one of the light emitting
2 devices being communicatively connected to the central controller. The central
3 controller is configured for selectively causing at least one of the light emitting
4 devices to emit light for phototherapy of at least one anatomical feature of the
5 subject.” *Bellini* at Abstract. The benefits of red light and near infra-red light was
6 well known for its therapeutic properties well before the filing of the ‘385 priority
7 application.

8 A POSITA seeking to develop a light therapy device would look to and draw
9 motivation from this established art and its teachings to incorporate red and/or near
10 infra-red light. As discussed above, these wavelengths of light have long been
11 known to provide healing benefits for all types of ailments. A POSITA would be
12 acutely aware of the healing properties of red light would utilizes these wavelengths
13 for those properties as a design choice dependent of the condition the POSITA seeks
14 to treat.

15 Moreover, the ‘385 priority application attempts to address shortcomings of
16 the prior art PMB because “many of these devices are too small and require multiple
17 sessions to treat large areas. As a result, there as a need for a photobiomodulation
18 therapy system that can treat several areas in fewer treatments.” ‘752 patent at 1:55-
19 60. Many prior art references cited herein address this same problem, namely
20 connecting devices together to create effectively larger devices. For example,
21 *Rekar, Bellini, Wolff*, and *Stark* all disclose apparatus for connecting light devices.
22 Because these references seek to solve the same problem discussed in the ‘385
23 priority application, a POSITA would be motivated to consult these references for
24 inspiration, teachings and general art in the field of Light Therapy Systems Using
25 Red Light. To the extent a reference does not disclose the use of phototherapy, and
26 red and NIR light in particular, a POSITA would look to analogous lighting art for
27 design choice. For example, *K5 series* and *Elsegood* disclose grow lights that solve
28 the same stated problem as the ‘752 patent. One of skill would be aware of and look

1 to this analogous art for design choice for controlling the adjustment of the lighting
2 apparatus.

3 ***Multiple Light Device Housing, PCBs and Light Sources Protruding.***

4 Hollow housing designs for containing LED light devices were also well known in
5 the art. For example, *Bellini* discloses a “housing 312 may be implemented in any
6 suitable way, taking on any suitable shape. The housing 312 comprises a periphery
7 314 which includes a top surface 315, a bottom surface 311, and lateral surfaces 317
8 1-317 4. For example, in some embodiments, the housing 312 may take on the shape
9 of a rectangular box with a length, a width, and a height, where the magnitude of the
10 length is larger than the magnitude of the width.” *Bellini* at [0087]. *K5 series*
11 disclose a similar rectangular hollow housing member with openings for LED lights.
12 See Ex. E-9. The benefits of red and NIR light was well known for its therapeutic
13 properties well before the filing of the ’385 priority application. For example,
14 *Ferguson* discloses “an LED panel front surface [that] is a uniform color and
15 includes an array of mounted infra-red LEDs.” *Ferguson* at [0025]. *See supra*
16 sections III, V, VII; *see also infra* section VIII.

17 A POSITA looking to develop a light-based therapy device with height
18 adjustment would look to this established art and its teachings to implement the light
19 device in a hollow housing with openings for the LEDs. One of skill would know
20 that a housing for LEDs could be “implemented in any suitable way, taking on any
21 suitable shape.” *Bellini* at [0087]. The shape and construction are simple design
22 choices that would be well within the knowledge of one of skill. Similarly, creating
23 openings for the LED light to be emitting is also a necessary design choice and step
24 ensure that the LED light is emitting to contact the subject treatment area. *K5 Series*
25 and *Van Zuylen* specifically discloses separate openings for each LED. A POSITA
26 would also encourage to design a system whereby the light sources protrude from
27 the device housing to increase power density for treatment. For example, *Van Zuylen*
28 teaches “a number of LEDs 202 are arranged as an array and protrude through the

1 bottom of the treatment module base 204. This allows each LED 202 to make direct
2 contact with the skin, maximizing photon penetration. The LED array is arranged by
3 placing each individual LED as close as possible to neighboring LEDs, which
4 maximizes the power density created by the array.” *Van Zuylen* at [0124]. Finally, a
5 POSITA would look to the numerous choices for implementing an LED light source
6 design such as lead frame and PCB structures. PCB mounted LEDs would be a
7 logical design choice given the LED array required for illumination.

8 ***Brackets, Apertures and Attachment Members were Well Known.*** A
9 POSITA would be well aware of the numerous design choices for adjusting and
10 connecting several light therapy devices to increase surface area of treatment. These
11 design choices, like those disclosed in cited references included post like attachment
12 member being received into apertures. See Ex. E1 – E-9 at 1[d] and [e]. Indeed,
13 posts and hole systems were well known for use in attachment. See E-5 at *Stark*.
14 Similarly, brackets have long been a well-known structure for connecting lighting
15 devices and panels in particular. For example, *Scarlata* discloses “coupling
16 members” which can take many forms. “The coupling features 107 can include, but
17 are not limited to, a portion of a hinge, an aperture (as shown), a slot, a tab, a detent,
18 and a mating thread. A side bracket 300, a rear bracket 400, a center interface 500,
19 and/or another component of the example assembly system can be coupled to the
20 light module 100 by the direct use of the coupling features 107.” *Scarlata* at 6:22-
21 28. *Hall* discloses a connecting structure comprising “both horizontal beams 32A
22 and vertical beams 32B [that] may be used to support the display panels.” *Hall* at
23 6:40-43. Finally, a POSITA would seek to hide the bracket behind the light device
24 for aesthetics as well as reduction in material cost. Designing a bracket that would
25 fit behind the light device (e.g., not extend beyond the edges) and to minimize the
26 size of the bracket while keeping connection integrity would be the clear and
27 obvious choice. As discussed above, numerous techniques for connecting panels
28 were well known in the art prior filing of the ‘385 priority application. The

1 techniques described in the '752 patent, such as posts with detachable members and
2 brackets, were well within the knowledge of one skill and would be simple design
3 choices in the skilled artisans "toolbox." Faced with the stated problem of easy
4 adjustment of height for a lighting device, a POSITA would be motivated to look to
5 these existing techniques.

6 Defendant incorporates by reference prior art from the prosecution histories
7 and background sections of the '752 patent. Defendant expects to rely on the
8 testimony of one or more expert witnesses and documents referenced by those
9 expert witnesses in support of these contentions and incorporate those forthcoming
10 expert reports as if fully set forth herein.⁵

11 Defendant contends that there are no secondary considerations of non-
12 obviousness evidencing the validity of any of the asserted claims. Secondary
13 considerations of non-obviousness, also referred to as objective indicia of non-
14 obviousness, "can include copying, long felt but unsolved need, failure of others,
15 commercial success, unexpected results created by the claimed invention,
16 unexpected properties of the claimed invention, licenses showing industry respect
17 for the invention, awards or other industry praise for the invention, and skepticism
18 of skilled artisans before the invention." *Power Integrations, Inc. v. Fairchild*
19 *Semiconductor Int'l, Inc.*, 711 F.3d 1348, 1368 (Fed. Cir. 2013). "A nexus between
20 the merits of the claimed invention and evidence of secondary considerations is
21 required in order for the evidence to be given substantial weight in an obviousness
22 decision." *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 668 (Fed. Cir. 2000). Moreover,
23 even if a nexus exists, secondary considerations of non-obviousness "simply cannot
24 overcome [a] strong prima facie showing of obviousness." *Sundance, Inc. v.*
25 *DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1368 (Fed. Cir. 2008). Plaintiff has not
26 established the existence of any objective indicia of non-obviousness or secondary
27

28 ⁵ All such expert reports and testimony will be produced and provided pursuant to the
applicable deadlines in the Court's Scheduling Order (ECF #034).

1 considerations. Defendant reserves the right to supplement their contentions to
2 respond to any such evidence should Plaintiff identify any. While discovery in this
3 case is ongoing, and Defendant's investigation continues (which will include expert
4 discovery), to the extent Plaintiff contends that one or more asserted claims is not
5 obvious based on secondary considerations recognized by relevant authority
6 Defendant contends such allegations are without merit. For example, Plaintiff has
7 provided no evidence of copying of the purported inventions of the asserted claims.
8 Similarly, Plaintiff has provided no evidence of any failure of others to realize any
9 purported inventions of the asserted claims, or any evidence of any long felt but
10 unsolved need solved by the purported inventions of the asserted claims. *Id.* To the
11 contrary, the lack of novelty and widespread availability of PMB light therapy
12 devices as demonstrated by the prior art is contrary evidence of any long-felt need
13 for the purported inventions of the asserted claims.

14 Plaintiff also has not identified any evidence that the purported inventions of
15 the asserted claims have enjoyed any commercial success. To the extent that
16 Plaintiff claims that sales of any accused products constitutes commercial success,
17 Plaintiff has not identified any evidence of any nexus between the claimed invention
18 and such alleged commercial success. Moreover, any commercial success of the
19 accused products may be due to factors other than the merits of the asserted claims,
20 including non-patented features or functionalities, marketing efforts or other
21 financial or economic incentives related to the sale or distribution of the accused
22 products. Plaintiff also has provided no evidence of unexpected results or
23 unexpected properties in the purported inventions of the asserted claims. *Id.*
24 Additionally, there is no evidence of any licenses showing industry respect for the
25 purported inventions of the asserted claims, and also no evidence of any awards or
26 other industry praise for any purported inventions of the asserted claims. Finally,
27 Plaintiff has provided no evidence of any skepticism of skilled artisans prior to
28 purported inventions of the asserted claims; to the contrary, the prior art identified

1 herein establishes not only a lack of skepticism but an appreciation that the
2 purported inventions of the asserted claims were known to those of skill in the art.

3 **F. Other Invalidity Grounds**

4 Defendant hereby identify grounds of invalidity based on (1) lack of written
5 description under 35 U.S.C. § 112, first paragraph (pre-AIA); (2) lack of enablement
6 under 35 U.S.C. § 112, first paragraph (pre-AIA); (3) indefiniteness under 35 U.S.C.
7 § 112, second paragraph (pre-AIA), and (4) lack of patentable subject matter under
8 35 U.S.C. § 101. These contentions shall not be construed as an admission that any
9 claim construction advanced by Defendant in this case is in any way inconsistent,
10 flawed, or erroneous. Nor should these contentions prevent Defendant from
11 advancing claim construction and/or non-infringement positions in lieu of, or in
12 addition to, invalidity positions. Further, these contentions shall not be construed as
13 an admission of or acquiescence to Plaintiff's purported construction of the claim
14 language or of other positions advanced by complainant during the course of this
15 litigation. Defendant's Invalidity Contentions under 35 U.S.C. § 112 may depend, in
16 part, on the Court's claim construction, as well as Plaintiffs' alleged scope of the
17 '752 Asserted Claims. Consequently, Defendant only identifies the issues under 35
18 U.S.C. § 112 of which it is presently aware.

19 **1. Enablement and/or Written Description Pursuant to 35** 20 **U.S.C. 112**

21 The '752 patent does not provide sufficient written description to establish
22 that the alleged inventors were in possession of the alleged inventions recited in
23 certain of the Asserted Claims at the time the '752 patent was filed. *Ariad Pharms.,*
24 *Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). In other words, the
25 applicants did not describe their purported inventions in a manner that "reasonably
26 conveys to those skilled in the art that the inventor had possession of the claimed
27 subject matter as of the filing date." *Id.* The specification of the '752 patent also
28 does not enable one of ordinary skill in the art to make and/or use certain recited

1 elements of the '752 Asserted Claims without undue experimentation.

2 To the extent the following limitations are definite (under 35 U.S.C. § 112,
3 second paragraph), the '752 patent fails to sufficiently describe or enable them as
4 required by 35 U.S.C. § 112, first paragraph:

5 “at least partially protrude” (claim 1, 3)

6 “bottom side of the first rigid housing” (claim 1)

7 “first attachment member” (claim 1)

8 “arranged and configured to be detachably coupled” (claim 1, 2, 3)

9 **2. Indefiniteness Pursuant to 35 U.S.C. 112**

10 Several of the '752 Asserted Claims are invalid because they fail to inform
11 those skilled in the art about the scope of the alleged invention with reasonable
12 certainty and are indefinite under 35 U.S.C. § 112, second paragraph, for failing to
13 particularly point out and distinctly claim the subject matter the applicants regard as
14 their alleged invention.

15 Certain Asserted Claims of the '752 patent are invalid as indefinite due to the
16 following limitations which fail to inform, with reasonable certainty, those skilled in
17 the art about the scope of the invention:

18 “at least partially protrude” (claim 1, 3)

19 “bottom side of the first rigid housing” (claim 1)

20 “first attachment member” (claim 1)

21 “arranged and configured to be detachably coupled” (claim 1, 2, 3)

22 **VIII. U.S. PATENT NO. 11,524,172**

23 **A. Relevant Prior Art**

24 Defendant contends that the prior art references identified in Defendant's
25 contentions anticipate or render obvious the asserted claims of the '172
26 patent. Based on the information reasonably available to Defendant, the priority date
27 of the asserted claims of the '172 patent is no earlier than October 22, 2018, the
28 filing date of the Application No. 16/167,385 (“the '385 application”).

The '172 patent “relates to photobiomodulation therapy systems and methods” and describes in the Background that the field of “[p]hotobiomodulation therapy (or light therapy) is a therapeutic technique that uses low-level wavelengths of light to improve health and treat a variety of health conditions, including skin issues, such as wrinkles, scars, and persistent wounds, among many other conditions. Similar to how plants use sunlight to heal and grow, humans and animals are able to harness these wavelengths of light and turn them into cellular energy. This treatment stimulates the body's natural healing processes.” Col. 1:41-54. It concedes that “there are a number of photobiomodulation therapy devices available on the market” but observes that “many of these devices are too small and require multiple sessions to treat large areas. As a result, there as a need for a photobiomodulation therapy system that can treat several areas in fewer treatments.” *Id.* at 1:55-60. Thus, the '172 patent proclaims to disclose “a variety of communicatively coupled light therapy systems.” *Id.* at 1:64-65.

Below, Defendant lists some of the prior art cited in these contentions:

3. Patents and Printed Publications

Bates Number Begin	Bates Number End	Prior Art Reference
MRL00004067	MRL00004081	DE7638568U1
MRL00004082	MRL00004089	DE202012012004U1
MRL00004090	MRL00004104	DE7638568U1
MRL00004105	MRL00004109	English Translation of DE763856
MRL00004110	MRL00004116	CN205924721U
MRL00004117	MRL00004121	English Translation of CN205924721U U
MRL00004122	MRL00004139	FR2917299A1
MRL00004140	MRL00004149	K5 BOOK WEB 2016 new
MRL00004150	MRL00004182	Mouser Racks and enclosures
MRL00004183	MRL00004186	US1617028
MRL00004187	MRL00004201	US4095113
MRL00004202	MRL00004208	US4844069
MRL00004209	MRL00004216	US5733032
MRL00004217	MRL00004229	US5996728
MRL00004230	MRL00004244	US6896693

1	Bates Number Begin	Bates Number End	Prior Art Reference
2	MRL00004245	MRL00004292	US9227082
3	MRL00004293	MRL00004307	US10064940
4	MRL00004308	MRL00004322	US10363434
5	MRL00004323	MRL00004341	US20040008523A1
6	MRL00004342	MRL00004351	US20070129777A1
7	MRL00004352	MRL00004373	US20120104977A1
8	MRL00004374	MRL00004384	US20120170264A1
9	MRL00004385	MRL00004393	US20150307332A1
10	MRL00004394	MRL00004405	US20160278304A1
11	MRL00004406	MRL00004436	US20190282826A1
12	MRL00004437	MRL00004479	CA3059989A1
13	MRL00004480	MRL00004492	EP2923728A1
14	MRL00004493	MRL00004505	EP2923728A1
15	MRL00004506	MRL00004516	English Translation of EP2923728
16	MRL00004517	MRL00004532	English Translation of FR3014322B1
17	MRL00004533	MRL00004548	EP1664621B1
18	MRL00004549	MRL00004564	EP3001777A1
19	MRL00004565	MRL00004570	EP3232740B1
20	MRL00004571	MRL00004597	KR101715102B1
21	MRL00004598	MRL00004619	KR200488956Y1
22	MRL00004620	MRL00004641	KR200489354Y1
23	MRL00004642	MRL00004649	KR20090055891A
24	MRL00004650	MRL00004655	English translation of KR20090055891
25	MRL00004656	MRL00004664	KR20100009542U
26	MRL00004665	MRL00004672	English Translation of KR20100009542U
27	MRL00004673	MRL00004682	US3648706
28	MRL00004683	MRL00004799	US6166496
	MRL00004800	MRL00004835	US7932482
	MRL00004836	MRL00004846	US8425577
	MRL00004847	MRL00004864	US9314302
	MRL00004865	MRL00004883	US9491833
	MRL00004884	MRL00004900	US9526860
	MRL00004901	MRL00004921	US9533170
	MRL00004922	MRL00004936	US10589122
	MRL00004937	MRL00004988	US10632325
	MRL00004989	MRL00005068	US10881550
	MRL00005069	MRL00005112	US11058889
	MRL00005113	MRL00005143	US11141219
	MRL00005144	MRL00005180	US11395925

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

Bates Number Begin	Bates Number End	Prior Art Reference
MRL00005181	MRL00005193	US20020198575A1
MRL00005194	MRL00005203	US20040068305A1
MRL00005204	MRL00005220	US20050075703A1
MRL00005221	MRL00005235	US20060229689A1
MRL00005236	MRL00005260	US20070217199A1
MRL00005261	MRL00005326	US20100121420A1
MRL00005327	MRL00005339	US20110054573A1
MRL00005340	MRL00005357	US20140071681A1
MRL00005358	MRL00005384	US20150112411A1
MRL00005385	MRL00005392	US20150134032A1
MRL00005393	MRL00005411	US20150224332A1
MRL00005412	MRL00005426	US20180008839A1
MRL00005427	MRL00005436	US20180296854A1
MRL00005437	MRL00005459	US20190030359A1
MRL00005460	MRL00005487	US20190142636A1
MRL00005488	MRL00005690	US20190201711A1
MRL00005691	MRL00005716	US20190269934A1
MRL00005717	MRL00005733	US20200001105A1
MRL00005734	MRL00005779	US20200269065A1
MRL00005780	MRL00005823	US20200360714A1
MRL00005824	MRL00005828	USD679440
MRL00005829	MRL00005839	CN108187235A
MRL00005840	MRL00005848	English Translation of CN108187235A
MRL00005849	MRL00005854	CN200963440Y
MRL00005855	MRL00005861	CN204364686U
MRL00005862	MRL00005868	CN204364686U
MRL00005869	MRL00005869	English Translation of Abstract of CN204364686U
MRL00005870	MRL00005878	DE202016101699U1
MRL00005879	MRL00005884	English Translation of DE202016101699U1
MRL00005885	MRL00005947	US20050085875A1
MRL00005948	MRL00005985	US20080269849A1
MRL00005986	MRL00006015	WO2017066270A1
MRL00006016	MRL00006079	English Translation of EP3490671A1
MRL00006080	MRL00006103	English Translation of KR101715102B1
MRL00006104	MRL00006117	English Translation of KR200488956Y1

Moreover, Defendant hereby incorporates by reference all the references cited during the prosecution of the '172 patent and those references that appear on the face of the '172 patent.

B. Anticipation and Obviousness

Defendant attaches Exhibits F-1 to F-11, which provide exemplary disclosures showing how the prior art anticipates and/or renders obvious the asserted claims of the '172 patent. These charts identify primary references, and in some cases, secondary references, and obviousness contentions. Defendant may rely on any of the primary references identified in Exhibits F-1 to F-11 in combination with any reference identified in those exhibits in combination with any reference identified in those exhibits and Exhibit F-11. Defendant's anticipation contentions are presented in the following exhibits, each of which describes anticipation of one or more claims of the '172 patent by a primary reference:

Exhibit	Primary Reference
F - 1	US10589122B2 to Boyajian ("Boyajian")
F - 2	US 2020/0269065 to ("Broeng")
F - 3	US 2019/0030359 to Dijkstra ("Dijkstra")
F - 4	US 2006/0229689 to Ferguson ("Ferguson")
F - 5	US 2018/0008839 to Hamid ("Hamid")
F - 6	EP2923728A1 to Huout ("Huout")
F - 7	US 10632325 to Lim ("Lim")
F - 8	US 2011/0054573 to Mitchell ("Mitchell")
F - 9	US 2002/0198575 to Sullivan ("Sullivan")
F - 10	US 8425577 to Vargas ("Vargas")
F - 11	US 2020/0360714 to Shterzer ("Shterzer") US 2011/0054573 to Adam ("Adam") US 2015/0112411 to Beckman ("Beckman") US 7932482 to Norwood ("Norwood") US 2014/0071681 to Ghafoori ("Ghafoori") US 2014/0071681 to Schwarz ("Schwarz") EP 3232740B1 to Bevilacqua ("Bevilacqua")

1	US 3648706 to Holzer (“Holzer”)
2	US 9314302 to Dougal (“Dougal”)
3	US 9533170 to Dye (“Dye”)
4	US 2019/0201711A1 to Brawn (“Brawn”)
	US 20050075703A1 to Larsen (“Larsen”)
	KR 200489354Y1 (“KR’354”)

5 Defendant’s obviousness contentions are also contained in Exhibits F-1 to F-
6 11.

7 The U.S. Supreme Court in *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727
8 (2007) emphasized that inventions arising from ordinary innovation, ordinary skill,
9 or common sense should not be patentable. *Id.* at 1732, 1738, 1742-1743, 1746. A
10 patent claim may be obvious if the combination of elements was obvious to try or if
11 there existed at the time of the invention a known problem for which there was an
12 obvious solution encompassed by the patent’s claims. When a work is available in
13 one field of endeavor, design incentives and other market forces can prompt
14 variations of it, either in the same field or a different one. If a person of ordinary
15 skill can implement a predictable variation, Section 103 of Title 35 likely bars its
16 patentability. *Id.* at 1740. The Court stated that courts should “look to interrelated
17 teachings of multiple patents; the effects of demands known to the design
18 community or present in the marketplace; and the background knowledge possessed
19 by a person having ordinary skill in the art, all in order to determine whether there
20 was an apparent reason to combine the known elements in the fashion claimed by
21 the patent at issue.” *Id.* at 1740-41. *KSR* does not mandate evidence of a motivation
22 or suggestion to combine prior art references. *See TGIP, Inc. v. AT&T Corp.*, 527 F.
23 Supp. 2d 561, 580-81 (E.D. Tex. 2007). “[A] court can take account of the
24 inferences and creative steps that a person of ordinary skill in the art would employ”
25 to resolve the question of obviousness. *KSR*, 127 S. Ct. at 1741.

26 Based on all of these considerations, as further detailed in Exhibits F-1 to F-
27 11, persons of ordinary skill in the art would have combined the teachings of the
28 prior art references discussed and charted in those exhibits with teachings from the

1 same reference, with the knowledge of a person of skill in the art, and/or with
2 teachings from other prior art references as disclosed in Exhibits F-1 to F-11. The
3 combinations of these references would have rendered obvious to one of ordinary
4 skill in the art the subject matter of the asserted claims of the '172 patent. The
5 references identified in Exhibits F-1 to F-11 are analogous prior art to the subject
6 matter of the asserted claims and, for at least the reasons set forth below, are
7 properly combinable. Because these prior art references exist within a single field of
8 art, particularly one in which individuals in the field often shared and/or
9 collaborated on their work, it would have been obvious for a person of skill in the art
10 to look from one piece of prior art to another in order to find any missing
11 functionality they desired to implement. Therefore, these references provide
12 interrelated teachings and one of ordinary skill would look to the concepts in any of
13 these references when seeking to solve the problems purportedly addressed by the
14 '172 patent.

15 Numerous prior art references, including those identified in the attached
16 exhibits, reflect common knowledge and the state of the prior art before the earliest
17 claimed effective filing date of the '172 patent. As it would be unduly burdensome
18 to create detailed claim charts for all of the invalidating combinations, for at least
19 the reasons described in these invalidity contentions, it would have been obvious to
20 one of ordinary skill in the art to combine any of a number of prior art references,
21 including any combination of those identified in the attached exhibits, to meet the
22 limitations of the asserted claims of the '172 patent. Defendant's inclusion of
23 exemplary combinations, in view of the factors and motivations identified here, does
24 not preclude Defendant from identifying other invalidating combinations and/or
25 motivations as appropriate.

26 No showing of a specific motivation to combine prior art is required to
27 combine the references disclosed above and in the attached charts, because each
28 combination of art would have no unexpected results, and at most would simply

1 represent a known alternative to one of ordinary skill in the art. *See KSR*, 127 S. Ct.
2 at 1739-40 (rejecting the Federal Circuit’s “rigid” application of the teaching,
3 suggestion, or motivation to combine test, instead espousing an “expansive and
4 flexible” approach). Indeed, the Supreme Court held that a person of ordinary skill
5 in the art is “a person of ordinary creativity, not an automaton” and “in many cases a
6 person of ordinary skill in the art will be able to fit the teachings of multiple patents
7 together like pieces of a puzzle.” *Id.* at 1742. Nevertheless, in addition to the
8 information contained herein, Defendant hereby identifies additional motivations
9 and reasons to combine the cited art.

10 One or more combinations of the prior art references identified herein, with
11 itself, the knowledge of one of skill in the art, or with other references, would have
12 been obvious because these references would have been combined using: known
13 methods to yield predictable results; known techniques in the same way; a simple
14 substitution of one known, equivalent element for another to obtain predictable
15 results; and/or a teaching, suggestion, or motivation in the prior art generally. In
16 addition, it would have been obvious to combine the prior art references identified
17 above because there were only a finite number of predictable solutions and/or
18 because known work in one field of endeavor prompts variations based on
19 predictable design incentives and/or market forces either in the same field or a
20 different one. In addition, the combinations of the prior art references identified
21 above would have been obvious because the combinations represent the known
22 potential options with a reasonable expectation of success.

23 Additional evidence that there would have been a motivation or reason to
24 combine the prior art references identified above includes the interrelated teachings
25 of multiple prior art references; the effects of demands known to the design
26 community or present in the marketplace; the existence of a known problem for
27 which there was an obvious solution; the existence of a known need or problem in
28 the field of endeavor at the time of the invention; and the background knowledge

1 that would have been possessed by a person having ordinary skill in the art. For
2 example, the prior art references are generally directed to the same problems. Thus,
3 a skilled artisan seeking to solve these problems would look to these cited references
4 in combination.

5 Thus, the motivation or reason to combine the teachings of the prior art
6 references disclosed herein is found in the references themselves and in: (1) the
7 nature of the problems being solved; (2) the express, implied, and inherent teachings
8 of the prior art; (3) the knowledge of persons of ordinary skill in the art; (4) the fact
9 that the prior art is generally directed towards the same problems; and/or (5) the
10 predictable results obtained in combining the different elements of the prior art; (6)
11 the use of a known technique to improve similar devices, methods, or products in the
12 same way; (7) the predictable results obtained in applying a known technique to a
13 known device, method, or product ready for improvement; (8) the finite number of
14 identified predictable solutions that had a reasonable expectation of success; and (9)
15 known work in various technological fields that could be applied to the same or
16 different technological fields based on design incentives or other market forces.

17 It would have been obvious to combine any of the prior art in Exhibits F-1 to
18 F-11 because all of these references relate to devices and methods with limitations
19 that were well known to the skilled artisan prior to the '385 application.

20 A wide variety of techniques were known to the skilled artisan in the
21 development of light therapy systems prior to the filing of the '385 priority application.
22 In particular, as discussed below, each of the limitations of the asserted claims of the
23 '172 patent were known to the skilled artisan and available in the artisan's
24 "toolbox." Indeed, it would be simply a matter of design choice to draw from these
25 known techniques and combine them to render the asserted claim invalid.

26 ***Light Therapy Systems Using Red and Near Infrared (NIR) Light for***
27 ***Therapeutic Applications.*** Light Therapy systems with communicatively coupled
28 light devices, such as panels or light arrays, were well known in the art for some

1 time. The physical benefits of light therapy, or photobiomodulation (“PBM”) were
2 studied extensively prior to the priority application for the ’172 patent. Many
3 publications and patents described these systems, their purposes, controls and other
4 features in detail. Only some of those patents and publications are discussed here.

5 Early prior art like *Holzer*, *Mori*, *Sullivan* and *Bansal* disclosed light
6 treatment apparatus and extensively discussed the benefits of PBM. *See e.g.*,
7 *Sullivan* at [0005-0026] (discussing “light emitting diodes emitting electromagnetic
8 radiation of various wavelengths (i.e., colors) for administering positive and
9 beneficial treatments to living organisms (including mammals) for injury, pain relief
10 and illness.”) *Dijkstra* also disclosed a “device for treating various external and
11 internal body conditions by using LED Light Therapy, Laser Light Therapy, Photo-
12 Bio-Modulation Therapy (PBMT), Photodynamic Therapy (PDT), UV based light
13 therapy and/or any other suitable light therapy.” *Dijkstra* at [0001]

14 The benefits of red and near infra-red (“NIR”) light was well known for its
15 therapeutic properties well before the filing of the ’385 priority application. For
16 example, *Ferguson* discloses an LED panel front surface [that] is a uniform color
17 and includes an array of mounted infra-red LEDs. *Ferguson* at [0025]. *Hamid*
18 discloses “[a] photo-bio-stimulation device uses near infrared (NIR) laser
19 illumination of the scalp to promote hair growth with a lightweight user wearable
20 device.” *Hamid* at Abstract. *Huout* discloses a wide range of therapeutically
21 beneficial light wavelength including red and NIR. “Preferably, the light source
22 comprises an emission spectrum having a maximum emission wavelength chosen
23 from the wavelength ranges 400 nm to 440 nm, 590 nm to 650 nm and 810 nm to
24 850 nm.” *Huout* at [0026]. Moreover, *Mitchell* teaches an “emitter unit can include
25 an array of LEDs 106 or other emitters that emit infrared and/or near-infrared light
26 at a wavelength specific to the optic window of human tissue.” *Mitchell* at [0022].
27 *Sullivan* teaches a combination of red and NIR emitters for PBM: “LED's emitting
28 red light at 630 nm, 12 LED's emitting infrared (IR) light at 880 nm, and 12 LED's

1 emitting blue light at 470 nm.... The red, blue and IR light emitting LED's, as well
2 as their availability, are well known in the art and, therefore, are not explained
3 further.” *Sullivan* at [0056]. *Vargas* discloses “a skin treatment device, and more
4 particularly, to an apparatus for the application of red and near infra-red LED
5 phototherapy over large areas of a user's body.” *Vargas* at 1:11-13. *Lim* teaches the
6 use of both wavelength spectrums for therapeutic treatment and discloses an
7 “irradiation unit [] which is capable of generating light energy of at least one
8 preselected wavelength selected from the group consisting of near infrared red light
9 wavelengths and visible red light wavelengths.” *Lim* at 11:21-27. Many references
10 discussed in these contentions disclose the benefits of red and NIR therapy. *See,*
11 *e.g., Shterzer, Adam, Beckman, Holzer, Dougal, Dye, Brawn, Larsen, KR'354. See*
12 *Ex. F-11.* Thus, red and NIR light therapy were well known to a POSITA prior to
13 the to the filing of the '385 priority application.

14 A POSITA seeking to develop a light-based therapy device would look to and
15 draw motivation from this established art and its teachings to incorporate red and
16 NIR light. As discussed above, these wavelengths of light have long been known to
17 provide healing benefits for all types of ailments. A POSITA would be acutely
18 aware of the healing properties of red and near infrared light would utilizes these
19 wavelengths for those properties as a design choice dependent of the condition the
20 POSITA seeks to treat.

21 In particular, the '385 priority application attempts to address shortcomings of
22 the prior art PMB with respect to the inadequate size requiring multiple sessions.
23 Many prior art references cited herein address this same problem. For example,
24 *Dijkstra* discloses a system where “[t]he first and the second light therapy devices
25 are identical to each other and are being used together to cover the maximum body
26 portion of the user at one time.” *Dijkstra* at [0096]. A POSITA would look to use
27 red and NIR light as the primary wavelengths for development of a therapy light
28 device based up the knowledge of these wavelength treatment effectiveness which

1 would result in a reduction in treatment sessions. *Boyajian* teaches a five panel
2 system with “lighted hinge” to reduce or eliminate optical dead spaces between
3 adjacent panels when the illuminator is bent into a certain configuration. *Boyajian* at
4 Abstract. Because these references seek to solve the same problem discussed in the
5 ’385 priority application, a POSITA would be motivated to consult these references
6 for inspiration, teachings and general art in the field of Light Therapy Systems
7 Using Red and Near Infrared (NIR) Light.

8 ***Light Therapy Systems with Communicatively Coupled Light Devices.*** Light
9 therapy systems with communicatively coupled light devices were also well known
10 in the art. Many prior art PBM therapy systems taught light devices that were
11 communicatively coupled together for treatment. The prior art teaches that multiple
12 panels provide more irradiation coverage. For example, *Ferguson* discloses a
13 multiple module light therapy device for therapeutic treatment noting “[r]ecent
14 inventions have taken the use of light as a therapeutic device from the realm of
15 science-fiction to an actual science.” *Ferguson* at [0006]. “One embodiment of the
16 current invention comprises two LED panels and a pedestal. Each LED panel
17 includes a front surface and a back surface.” *Id.* at [0016]. *Baaijens* discloses
18 “various embodiments of the approach disclosed herein are particularly suited for a
19 lighting system that is utilized for therapeutic purposes such as treating jetlag, social
20 jetlag, seasonal depression, Surgery recovery, etc[,]” 8:6-10, and teaches that the
21 multiple fixtures can communicate via integrated controllers. “[I]n some
22 embodiments multiple lighting fixtures 110 may be provided, each having a
23 controller integrated therein and controllers across multiple lighting fixtures 110
24 may optionally communicate with one another. Also, for example, in some
25 embodiments multiple lighting fixtures 110 may be provided, with one having a
26 controller integrated therein that controls multiple lighting fixtures 110 via
27 communication with those other lighting fixtures.” *Baaijens* at 9:2-9. *Huout* notes
28 “[p]rior art phototherapy equipment for professional use is already known,

1 comprising a support mounted on a base with rollers and a head articulated on the
2 support comprising four adjacent luminous panels” [0010] and discloses “equipment
3 for treating a region of the body of a user by phototherapy.” *Huout at* [0013].
4 *Boyajian* specifically discuss the benefits of multiple device geometry to increase
5 the irradiation areas and propose structure that “uses a plurality of panels, wherein at
6 least one panel is of a different width than the other panels. This panel is positioned
7 between two other panels and, in a way, acts as a “lighted hinge” to provide enough
8 “fill-in” light to reduce or eliminate the optical dead spaces when the panels are bent
9 into a certain configuration. Preferably, five panels in total are used to provide for an
10 optimal increase in the total size of possible treatment areas.” *Boyajian at* 2:62-3:3.
11 Thus the prior art was replete with multiple light devices in communication with one
12 another. Notably, a POSITA would understand that because the light devices were
13 able to communicate, they would be *a priori* “communicatively coupled” and that a
14 communication module must be present in each light device for coupling to be
15 established. Many references disclose multiple communicatively coupled devices.
16 *See, e.g., Dijkstra, Vargas, , Adam, Beckman, Schterzer, Lim, Hamid, Holzer,*
17 *Houot, Broeng, Dougal, Dye, Brawn, Larsen, KR’354. See Ex. F-11.*

18 Moreover, the existence of “Light Therapy Systems with Commutatively
19 Coupled Light Devices” was conclusively established in the prior art during the
20 prosecution history of the ’635 patent and provides substantial evidence of the state
21 of the art at the time the ’385 patent priority application was filed. During the initial
22 prosecution of the ’635 patent, the original claims were rejected in view of the
23 teachings of *Mitchell*. In particular, the Examiner argued that *Mitchell* taught a red
24 light and near infra-red light therapy system with multiple light therapy devices each
25 having a communication module (wired or wireless) communicatively coupling the
26 light therapy devices. See MRL00000147-371, 02.15.2009 Non-Final Office action
27 at 4. In response to this rejection, the Patent Applicant argued, *inter alia*, that
28 *Mitchell* did not disclose a communication module located within a housing or a first

1 communication module configured to communicate directly with a second
2 communication module. *Id.*, 03.18.2009 Remarks at 11-12. The Examiner rejected
3 this argument noting that “the wired or wireless communication described in
4 paragraph [0030] satisfies the claim limitations, as the claim only requires direct
5 communication, rather than a direct connection the wired or wireless communication
6 described in paragraph [0030] satisfies the claim limitations, as the claim only
7 requires direct communication, rather than a direct connection.” *Id.*, 05.24.2019
8 Final Office Action at 5-6. The Patent Applicant capitulated to the Examiner and
9 amended the claims to include control panel with input buttons and indicator lights.
10 *Id.*, 06.14.2019 Response to Final Office Action at 3-4.

11 Thus, the prosecution history the ’635 patent as well as numerous prior art
12 references clearly demonstrate that *light therapy systems with multiple*
13 *communicatively coupled light therapy devices housing a plurality of red light and*
14 *near infrared light lights including communication modules (wired or wireless)*
15 were well known at the time of the filing of the ’385 priority application.

16 A POSITA looking to develop a light therapy device would look to this
17 established art and its teachings to multiple communicatively connect multiple light
18 emitting devices. As discussed, ’385 priority application attempts to address
19 shortcomings of the prior art PMB with respect to the inadequate size requiring
20 multiple sessions. Many prior art references cited herein address this same problem
21 by disclosing systems using of multiple devices to allow for increased treatment
22 areas size. *See supra*. Because increased treatment area size requires multiple light
23 devices, A POSITA would look to the coupling techniques of centralized power
24 input and control taught by the prior art discussed about. This includes analog,
25 digital and remote control that were well known in the art. Moreover, coupling and
26 decentralized addressable techniques have long been known in the light control art
27 and would be within the skilled artisan’s design choice toolbox. *See*

28 <https://www.dali-alliance.org/dali/>

1 ***Light Therapy Devices with Complex Control Panels with Indicator Lights,***
2 ***Switches and Buttons.*** Many prior art publications and patents disclosed separate
3 complex multi-control panels, one associated with each light therapy device. These
4 prior art control panels were known to incorporate indicator lights, switches and
5 buttons to control the operation, timing, wavelength emission and power input. The
6 prior art exposed during the prosecution history is evidence of the state of the art of
7 control panels. Subsequent to the issuance of the '635 patent, *ex parte*
8 reexamination was requested and instituted. In particular, the Patent Office found
9 that *Dijkstra, Vargas, Broeng, Sullivan and Shterzer* all disclosed multiple light
10 therapy devices with separate control panel with indicator lights. MRL00003014 –
11 3444 at 4. In particular, the Examiner found that *Dijkstra* disclosed “first and second
12 light therapy devices, each with its own control panel and being operated in
13 synchrony.” *Id.* at 5. *Vargas* disclosed “first and second light sources that are
14 operated by two control panels.” *Id.* at 6. “*Broeng* teaches that multiple devices can
15 be used at [0299] and hence appears to teach first and second light sources that are
16 operated by two control panels, one associated with each device.” *Broeng.* at 7.
17 *Sullivan* teaches first and second light sources that are operated by a processor 29
18 with a control panel (switched for time, frequency, pattern, etc.). *Sullivan* at 8.
19 Finally, *Shterzer* teaches first and second light sources 104A-104N that are each
20 operated by its own control unit 134. *Shterzer* at [0165].

21 Moreover, *Adams* (in combination with *Mitchell*) was found by the Patent
22 Office to disclose indicator lights on a control panel during prosecution of the
23 related '495 patent. MRL00000372-612, 12.06.2019 First Office Action. In
24 particular *Adams*, “discloses a light therapy device with a plurality of lights and a
25 control panel with an input button and two first indication lights. *See id.* at [0051]
26 ,[0066] (describing multiple indication lights). While the Patent Applicant
27 responded that *Adams* did not specifically disclose a control panel, the Examiner
28 reasoned that “because Adam discloses a first input button and a first pair of

1 indication lights, Adam provides the control panel as claimed.” MRL00000372-
2 612, 12.27.2019 Interview Summary at 1. Like *Adams*, *Norwood* provides an
3 explicit disclosure of digital control logic to control the characteristics of the light
4 emission. *Norwood* at 23:20-25-61 (discussing control logic and microprocessor
5 control). *Norwood* teaches that multiple device control can be achieved through the
6 general-purpose computer programming. As further examples, *Dijkstra* and *Broeng*
7 disclose the use of remote devices, such as smartphones, to control light therapy
8 devices. For example, *Dijkstra* teaches: “Referring to FIG. 5, the light therapy
9 system 100 comprises of a remote device, *i.e.*, a mobile device 520 held by a user
10 and a light therapy device 200 according to a second embodiment of the present
11 disclosure.” *Dijkstra* at [0093]. *Dijkstra* teaches that the mobile device 520 is
12 communicatively coupled to the light therapy device 200 via NFC, WI-FI, Bluetooth
13 or any other wired or wireless communication means,” and that “the display of the
14 mobile device 520 acts as a display unit 160 for the light therapy device 20.” *Id.*
15 “The mobile device 520 is having a software application installed in it. The software
16 application provides a user interface 430 where a user can find multiple options to
17 select in order to communicate with the light therapy device 200. Once the mobile
18 device is connected with the light therapy device 200 the user is able to control the
19 light therapy device 200 via the user interface.” *Id.* Similarly, *Broeng* teaches the use
20 of remote devices to control the light therapy device. “In this regard, it is noted that
21 in certain embodiments the controller is integral to the device (e.g., incorporated into
22 the housing of the device), while in other embodiments, the controller may be
23 remote from the device and coupled by a control cable or cables ((*see, e.g.*, 109 in
24 the illustrative, but non-limiting embodiments shown in FIG. 1). In other
25 embodiments the controller may control the phototherapy device through a radio
26 link, a light (e.g., infra-red link), via a Bluetooth link, and via a WiFi link. In certain
27 embodiments the controller comprises an App on a cell phone, tablet, or computer.”
28 *Broeng* at [0267].

1 Thus, light therapy devices with control panels with indicator lights, switches
2 and buttons were well known to a POSITA prior to the to the filing of the '385
3 priority application. *See* Ex. F-11.

4 A POSITA looking to develop a light-based therapy device would look to this
5 established art and its teachings of control system implementation. As discussed,
6 '385 priority application attempts to address shortcomings of the prior art PMB with
7 respect to the inadequate size requiring multiple sessions. Many prior art references
8 cited herein address this same problem by disclosing systems using of multiple
9 devices to allow for increased treatment areas size. *See supra*. Because increased
10 treatment area size requires multiple light devices to be controlled to provide the
11 sought-after treatment, a POSITA would look to the centralized techniques of
12 controlling power input and control to the multiple devices as taught by the prior art
13 discussed about. This includes analog, digital, and remote control. These coupling
14 techniques have long been known in the light control art and would be within the
15 skilled artisan's design choice "toolbox." Moreover the skilled artisan would be
16 aware of differing methods to do so, including indicator lights, buttons, physical
17 switches for software based general purpose computer control. The nature of the
18 NIR light therapy itself requires a solution that provides user with an indication that
19 the NIR lighting was on because it was not visible to the naked eye. These types of
20 solutions are plentiful in the prior art to which the POSITA would look in evaluating
21 design choices.

22 ***Light Therapy Devices with Lead and Follow Operation and Mode Select***
23 ***Switches.*** Lead and follow operation with mode select switches for light therapy
24 devices was also well known in the prior art before the priority date of the '385
25 patent application. Commonly referred to in the art as master-slave control, the '385
26 priority patent application describes lead and follow operation: "To ensure that the
27 light therapy devices 12 operate in the same way, some embodiments feature a lead
28 mode 70 and a follow mode 80. A light therapy device 12 that is configured to be in

1 the lead mode 70 may send operation instructions to all other light therapy devices
2 12 in the system 10. A light therapy device 12 that is configured to be in the follow
3 mode 80 may receive operation instructions from a light therapy device 12 that is in
4 the lead mode 70.” ’635 patent at 7:38-45. When the claims of the original ’635
5 patent were found unpatentable over *Dijkstra* in view of *Norwood* in the ’635 patent
6 reexamination, the Applicant accepted that the prior art disclosed its lead and follow
7 operation controlled by a mode select switch and chose to amend the claims to
8 include “lead, follow *and neutral* mode operational capabilities” rather than contest
9 the prior art’s disclosures. MRL00003014-3444, 02.09.2022 *Ex Parte* Notice of
10 Intent to Issue Reexamination Certificate at 2 (emphasis added). Indeed, the patent
11 owner described neutral mode as “key novel aspect that was indicated as allowable
12 over the [prior] art.” MRL00003014-3444, 12.06.2021 Agenda for Examiner
13 Interview on December 2, 2021 at 3 (Remarks). Thus, in choosing not to contest the
14 prior art disclosing lead and follow operation and relying on the “novelty” of neutral
15 mode, the patent owner admitted that lead and follow operation was known and
16 disclosed. Given the state of the art discussed below, this admission is clearly
17 warranted and supported.

18 For example, during the reexamination of the ‘495 patent, the concept of a
19 system with two light therapy devices each able to be switched to either of a lead
20 mode and a follow mode was found to have been disclosed in the prior art.
21 10.07.2021 Order granting Reexamination; Request for *Ex Parte* Reexamination at
22 Ground 5, pp. 54-67. In particular, the Patent Office found that *Broeng*, *Beckman*,
23 *Ferguson*, *Lim*, *Dijkstra* and *Norwood*, alone or in combination invalidated the
24 claims directed to two light therapy devices each able to be switched to either of a
25 lead mode and a follow mode. *Id.* *Dijkstra* explicitly disclosed master-slave
26 operation among the light therapy devices and *Norwood* detailed the control of the
27 master-slave operation. “*Dijkstra* teaches first and second light therapy systems that
28 are operated in synchrony and can be used in a master/slave configuration, while

1 Norwood teaches a switching arrangement for master/slave selection.” *Id.* at 8.
2 Indeed, in during the subsequent prosecution of the ‘172 patent application which
3 claims priority to the ‘385 patent application, the applicant *admitted* and *confirmed*
4 that “Dijkstra and Norwood both disclose master/save mode[.]” MRL00002240-
5 2934, 09.27.2022 Reply at 15.

6 Many prior art references disclose lead follow operation described as master
7 slave functionality. For example, *Ferguson* discloses a lead-follow operation as a
8 master-slave arrangement between its two panels. “Included on one of the LED
9 panels' one or more side surfaces is a power input mechanism, an on/off push
10 button, and a power output. This is the master panel. Power is supplied from a
11 power supply to the power input mechanism. The one or more side surfaces of the
12 other LED panel in the current embodiment includes only a power input. This is the
13 slave panel.” *Ferguson* at [0025]. *Huout* is another excellent example of master
14 slave control when it teaches “centralizing the control means in a single ‘master’
15 module, it is possible to control all the other ‘slave’ modules simultaneously.”
16 *Huout* at [0015]

17 Thus, Light Therapy Devices with Lead and Follow Operation and Mode Select
18 Switches were well known to a POSITA prior to the to the filing of the ‘385 priority
19 application. *See* Ex. F-11.

20 A POSITA looking to develop a light-based therapy device would look to this
21 established art and its teachings of control system implementation. As discussed, the
22 ‘385 priority application attempts to address shortcomings of the prior art PMB with
23 respect to the inadequate size requiring multiple sessions. Many prior art references
24 cited herein address this same problem by disclosing systems using multiple devices
25 to allow for increased treatment area size. *See supra*. Because increased treatment
26 area size requires multiple light devices to be controlled to provide the sought-after
27 treatment, a POSITA would look to the centralized techniques of controlling power
28 input, lead and follow operation, and switching taught by the prior art discussed

1 above. The desire for a multi-device system would motivate a POSITA to look for
2 simple control implementation which would lead the POSITA to consider the
3 centralized master-slave control technique long used in light system design. These
4 control techniques have long been known in the light control art and would be
5 within the skilled artisan's design choice "toolbox." Moreover the skilled artisan
6 would be aware of differing methods to do so, including physical mode switches or
7 software-based switching for general purpose computer control. These types of
8 solution are plentiful in the prior art to which the POSITA would look in evaluating
9 design choices.

10 ***Light Therapy Devices with Sidewall that are Configured to Physically***
11 ***Contact.*** Light therapy devices with sidewalls that are configured to physically
12 contact were well know before the priority date of the '635 patent application. Early
13 prior art discloses light therapy devices with multiple panels configured to
14 physically contact at the sidewalls of the panel. In particular, as early as 2005,
15 *Larsen* disclosed a five-panel array connected at the sidewalls. "Several applicators
16 13 are flexibly connected to each other through hinges 10, respectively connecting
17 one edge with the other, whereby the applicators are suitable for the treatment of for
18 example, the backs of humans and so become adjustable for an equidistant
19 positioning of the applicators 13 above the skin." *Larsen at* [0072]; *see also* Fig.1.
20 *Sullivan* discloses two panels connected on the sidewalls to form a folding light
21 therapy bed. *See Sullivan at* [0060]; Fig. 5. *Vargas* (Fig 1, 2) and *Teergardin* (Fig.
22 1B) similarly discloses a folding light therapy bed where the two halves are
23 connected and in physical contact along the sidewalls. Numerous references disclose
24 multiple light panels connected to each other with hinges such that the panels are
25 configured to physically contact that the sidewall and, when opened fully, do in fact
26 physical contact at the sidewalls. *See Ex. F-11.*

27 Finally, the prior art is replete with examples of PBM light therapy panels that
28 are in physical contact and are connected at the sidewall. For example, *McDaniel*

1 discloses a “a multi-paneled device having an array of LED's” for the “facial
2 application” for the treatment of “acne bacteria.” *McDaniel* at 4:61-64; Fig. 14. The
3 LED panels are connected and “fabricated in a manner that permits even exposure of
4 tissue infected with or otherwise containing acne bacteria.” *Id.* at 59-61. Thus,
5 *McDaniel* teaches that when panels are physically contacted and connected at the
6 sidewalls, the light coverage is greater and the treatment area is expanded.

7 *Huout* discloses wearable plurality of portable light therapy modules. *Huout* at
8 [0034]. The modules employ a “releasable mechanical connection of the
9 magnetization type in order to form a removable magnetic connection between the
10 modules 12. In a preferred embodiment, the magnetic links are also electrically
11 conductive. Consequently, the use of the equipment 10 will be limited to assembling
12 the modules 12 together by magnetization without requiring additional electrical
13 connections.” *Id.* at [0036]. “[T]he modules are able to exchange data by data
14 communication means and in which the control module comprises means for storing
15 another predefined processing program and means for communicating the other
16 program to the control means of the other modules.” *Id.* at [0024]. This
17 communication can be “the master-slave type. By centralizing the control means in a
18 single ‘master’ module, it is possible to control all the other ‘slave’ modules
19 simultaneously.” *Id.* at [0015]. Thus, *Huout* teaches modules with physically
20 connected sidewalls where the sidewall connection also facilitates electrical
21 conduction and communication among the modules.

22 *KR'354* discloses a “skin ray irradiator is used to treat or prevent diseases by
23 stimulating the human body with low output light energy of various wavelength
24 bands and is mainly used for skin beauty such as acne, black spot, spots, pigmented
25 lesions.” *KR'354* discloses a three-panel skin treatment device where the sidewalls
26 of the panels are in physical contact and are removeable connected. the treatment
27 device “can be used as a tunnel type skin treatment device by simply attaching the
28 upper part of the treatment device, the left side of the treatment device, and the right

1 side of the treatment device.” Moreover, the connected sidewalls can utilize magnets
2 “to ensure that there is no gaps and that [the panels are] well connected.”

3 *Boyajian* discloses a light therapy device that “uses a plurality of panels,
4 wherein at least one panel is of a different width than the other panels. This panel is
5 positioned between two other panels and, in a way, acts as a “lighted hinge” to
6 provide enough “fill-in” light to reduce or eliminate the optical dead spaces when
7 the panels are bent into a certain configuration. Preferably, five panels in total are
8 used to provide for an optimal increase in the total size of possible treatment areas.”
9 *Boyajian* at 2:62-3:3. In particular, *Boyajian* discloses that the panels “are rotatably
10 connected by hinges 50. The hinges 50 may take the form of nested hinges, which
11 may include hinges that substantially reduce or eliminate optical dead spaces.” *Id.*
12 at 4:44-47. *Boyajian* teaches that by connecting the panels, such that “the outside
13 vertical edges of adjoining panels to be positioned closer to one another. By spacing
14 the vertical edges of adjoining panels closer, optical dead spaces may be further
15 reduced or eliminated.” *Id.* at 5:5-9. *Boyajian* discloses that the elimination of
16 optical dead space is a goal achieved by connecting the sidewalls of the light panels
17 in a multi-panel therapy system. *Id.*

18 Thus, light therapy devices with sidewalls that are configured to physically
19 contact were well known to a POSITA prior to the to the filing of the ’385 priority
20 application. *See* Ex. F-11.

21 A POSITA seeking to develop a light-based therapy device would look to and
22 draw motivation from this established art and its teachings to connect multiple
23 panels to increase treatment size and decrease the requirement of multiple sessions.
24 By connecting and putting the physical panels in direct contact, this state goal of the
25 ’172 patent is achieved. In particular, the ’385 priority application attempts to
26 address shortcomings of the prior art PMB with respect to the inadequate size
27 requiring multiple sessions. Many prior art references cited herein address this same
28 problem. Using multiple light devices creates the potential for dead optical space

1 and reduced treatment size. A POSITA would attempt to solve this issue by utilizing
2 the teachings of prior art discussed above that arranges the several devices in
3 physical contact. For example, *Boyajian* teaches a five panel system with "lighted
4 hinge" to reduce or eliminate optical dead spaces between adjacent panels when the
5 illuminator is bent into a certain configuration." *Boyajian* at Abstract. Indeed,
6 treatment size isn't the only motivation for physically contacting the light devices.
7 Through physical contact, electrical and control signals can be transmitted to
8 establish simplified centralized control such as taught in *Huout*. Because these
9 references seek to solve the same problem discussed in the '385 priority application,
10 a POSITA would be motivated to consult these references for inspiration, teachings
11 and general art in the field of Light Therapy Devices with Sidewall that are
12 Configured to Physically Contact.

13 ***Light Therapy Devices with Neutral Mode Operation.*** According to its
14 Infringement Contentions, Plaintiff states: "The '635 Patent described "neutral"
15 operation as "when the second light therapy device operates in the neutral mode the
16 second light therapy device may operate independently of the first light therapy
17 device." *See e.g.*, Infringement Contentions, Ex. 6 at 70 citing '172 patent at 2:20-
18 23. "The user can, with the Accused Products in a multi-panel system, unplug the
19 control cable from one or many LED panels and, as a result, each unplugged panel
20 in that multi-panel system would operate independently in a neutral mode. It is
21 configured to operate in a neutral, independent mode." *Id.*

22 Notwithstanding that an unplugged panel is no longer part of a "multi-panel
23 system" or that the panels are no longer "communicatively coupled," under
24 Plaintiff's construction, the prior art is replete with therapeutic light devices that are
25 not plugged into other light devices and that operate independently. Indeed any of
26 the prior art discussed in these Invalidity Contentions that disclose a single light
27 device could be operable in "neutral mode" as Plaintiff construes that term. *See e.g.*,
28 *Mitchell, Dijkstra, Vargas, Broeng, Sullivan, Ferguson, Samson, Huout, Boyajian,*

1 *Lim, Shterzer, Adam, Beckman, Norwood, Holzer, Dougal, Dye, Brawn, Larsen,*
2 *KR'354; see also Ex. F-11.*

3 The '385 priority application, however, describes "neutral mode" operation
4 as: "A light therapy device 12 configured to be in neutral mode 90 may operate on
5 its own and may ignore instructions sent from a light therapy device 12 in the lead
6 mode 70. In this manner, the light therapy device(s) 12 in the neutral mode may
7 ignore incoming signals." See '635 patent at 7:66-8:3. The patent owner first
8 proposed the term neutral mode be included in the claim during the *ex parte*
9 reexamination of the '635 patent describing that the introduction of "neutral mode"
10 as the "key novel aspect." MRL00003014-3444, 12.06.2021 Reexamination,
11 Agenda for Examiner Interview ("Neutral mode is the key novel aspect that was
12 indicated as allowable over the art cited by the petition requestor."). Subsequent to
13 the interview, the Patent Owner amended the claims to include "the first light
14 therapy device and the second light therapy device are each configured to operate in
15 one of a lead mode, a follow mode, and a neutral mode, wherein when the first light
16 therapy device operates in the lead mode and the second light therapy device
17 operates in the follow mode the second light therapy device performs operations as
18 instructed by the first light therapy device." Notably, the new claim limitation
19 indicated that a light therapy device in follow mode performs operations as
20 instructed by the first light therapy device operating in lead mode.

21 The "neutral mode" made a second appearance in the claims of the related
22 '172 patent during original prosecution. In response to an anticipation rejection
23 based on the *Mitchell* reference, the applicant amended the claims to include the lead
24 and follow limitations (like those added to the claims of the '635) but without the
25 neutral mode limitation. The examiner rejected these claims in light of the teachings
26 of *Dijkstra* and *Norwood* which disclose master and slave operation which
27 corresponded to the claimed lead and follow modes. The applicant amended the
28 claims a second time adding the neutral mode claim limitation. Importantly, this

1 time the applicant explained what was meant by neutral mode in addition to
2 conceding that both *Dijkstra* and *Norwood* disclose “master/slave mode.” The
3 applicant admitted: “Dijkstra and Norwood both disclose “master/slave mode;”
4 however neither discloses an explicit neutral mode. Insofar as the devices of Dijkstra
5 and/or Norwood may be configured to operate independently (i.e, in a neutral mode
6 of sorts), both references still fail to teach or disclose *a device operating in a neutral*
7 *mode such that the device “ignores instruction from another device,* as recited in
8 amended claim 12.” MRL00002240-2934, 09.27.2022 Interview Summary at 15
9 (emphasis added). Thus, it is clear from this admission in the prosecution history
10 that for a device to have a neutral mode within the meaning of the ‘635 family
11 common specification, the device must “*ignore instruction from another device*”
12 and not just be configured to operate independently.

13 For example, *Vargas* discloses independent control of the light therapy
14 devices to custom light treatment for various parts of the body. The plurality of
15 narrow band, light emitting diodes (LEDs) 310 may, for instance, be arranged in a
16 multiplicity of illumination regions 320. Each of the illumination regions 320 may
17 be a collection of LEDs whose illumination time or intensity may be cooperatively
18 controlled by the exposure control unit 350. For instance, each exposure region may
19 be set to an exposure intensity that is different from the other regions, either by
20 varying the current supplied to the LEDs in that region, or by varying the
21 mark/space ratio of the illumination within that region, or some combination thereof.
22 In this way, different parts of the user's 110 body may be subject to a different
23 degree of therapy. The multiplicity of illumination regions 320 may be any useful
24 shape such as, but not limited to, a square, a rectangle, an oval, a circle, a triangle or
25 some combination thereof.” *Vargas* at 5:25-45. In this manner, each light therapy
26 device, although still coupled to the other light therapy device, is operating
27 independently in a “neutral mode.”
28

1 Likewise, *Boyajian* also discloses a neutral mode where “the LED arrays 60
2 may be individually configured is shown in FIG. 5. Here, the LED arrays 60 are
3 divided into three general areas, which may be described as “addressable strings.”
4 Areas 1, 3, and 5 correspond to an addressable string configuration that may be
5 included in the wider panels 10a, 10c, and 10e, while areas 2, 4, and 6 correspond to
6 an addressable string configuration that may be included in the narrower panels 10b
7 and 10d. The current to each area is adjusted in order to adjust the intensity of light
8 emitting from each of the areas.” *Boyajian* at 6:21-40. Each addressable string
9 operates independently but are still couple to the larger light therapy system.

10 Defendant incorporates by reference prior art from the prosecution histories
11 and background sections of the ’172 patent. Defendant expects to rely on the
12 testimony of one or more expert witnesses and documents referenced by those
13 expert witnesses in support of these contentions and incorporate those forthcoming
14 expert reports as if fully set forth herein.⁶

15 Defendant contends that there are no secondary considerations of non-
16 obviousness evidencing the validity of any of the asserted claims. Secondary
17 considerations of non-obviousness, also referred to as objective indicia of non-
18 obviousness, “can include copying, long felt but unsolved need, failure of others,
19 commercial success, unexpected results created by the claimed invention,
20 unexpected properties of the claimed invention, licenses showing industry respect
21 for the invention, awards or other industry praise for the invention, and skepticism
22 of skilled artisans before the invention.” *Power Integrations, Inc. v. Fairchild*
23 *Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1368 (Fed. Cir. 2013). “A nexus between
24 the merits of the claimed invention and evidence of secondary considerations is
25 required in order for the evidence to be given substantial weight in an obviousness
26 decision.” *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 668 (Fed. Cir. 2000) Moreover,

27
28 ⁶ All such expert reports and testimony will be produced and provided pursuant to the
applicable deadlines in the Court’s Scheduling Order (ECF #034).

1 even if a nexus exists, secondary considerations of non-obviousness “simply cannot
2 overcome [a] strong prima facie showing of obviousness.” *Sundance, Inc. v.*
3 *DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1368 (Fed. Cir. 2008). Plaintiff has not
4 established the existence of any objective indicia of non-obviousness or secondary
5 considerations. Defendant reserves the right to supplement their contentions to
6 respond to any such evidence should Plaintiff identify any. While discovery in this
7 case is ongoing, and Defendant’s investigation continues (which will include expert
8 discovery), to the extent Plaintiff contends that one or more asserted claims is not
9 obvious based on secondary considerations recognized by relevant authority
10 Defendant contends such allegations are without merit. For example, Plaintiff has
11 provided no evidence of copying of the purported inventions of the asserted claims.
12 Similarly, Plaintiff has provided no evidence of any failure of others to realize any
13 purported inventions of the asserted claims, or any evidence of any long felt but
14 unsolved need solved by the purported inventions of the asserted claims. *Id.* To the
15 contrary, the lack of novelty and widespread availability of PMB light therapy
16 devices as demonstrated by the prior art is contrary evidence of any long-felt need
17 for the purported inventions of the asserted claims.

18 Plaintiff also has not identified any evidence that the purported inventions of
19 the asserted claims have enjoyed any commercial success. To the extent that
20 Plaintiff claims that sales of any accused products constitutes commercial success,
21 Plaintiff has not identified any evidence of any nexus between the claimed invention
22 and such alleged commercial success. Moreover, any commercial success of the
23 accused products may be due to factors other than the merits of the asserted claims,
24 including non-patented features or functionalities, marketing efforts or other
25 financial or economic incentives related to the sale or distribution of the accused
26 products. Plaintiff also has provided no evidence of unexpected results or
27 unexpected properties in the purported inventions of the asserted claims *Id.*
28 Additionally, there is no evidence of any licenses showing industry respect for the

1 purported inventions of the asserted claims, and also no evidence of any awards or
2 other industry praise for any purported inventions of the asserted claims. Finally,
3 Plaintiff has provided no evidence of any skepticism of skilled artisans prior to
4 purported inventions of the asserted claims; to the contrary, the prior art identified
5 herein establishes not only a lack of skepticism but an appreciation that the
6 purported inventions of the asserted claims were known to those of skill in the art.

7 **G. Other Invalidity Grounds**

8 Defendant hereby identify grounds of invalidity based on (1) lack of written
9 description under 35 U.S.C. § 112, first paragraph (pre-AIA); (2) lack of enablement
10 under 35 U.S.C. § 112, first paragraph (pre-AIA); (3) indefiniteness under 35 U.S.C.
11 § 112, second paragraph (pre-AIA), and (4) lack of patentable subject matter under
12 35 U.S.C. § 101. These contentions shall not be construed as an admission that any
13 claim construction advanced by Defendant in this case is in any way inconsistent,
14 flawed, or erroneous. Nor should these contentions prevent Defendant from
15 advancing claim construction and/or non-infringement positions in lieu of, or in
16 addition to, invalidity positions. Further, these contentions shall not be construed as
17 an admission of or acquiescence to Plaintiff's purported construction of the claim
18 language or of other positions advanced by complainant during the course of this
19 litigation. Defendant's Invalidity Contentions under 35 U.S.C. § 112 may depend, in
20 part, on the Court's claim construction, as well as Plaintiffs' alleged scope of the
21 '172 Asserted Claims. Consequently, Defendant only identifies the issues under 35
22 U.S.C. § 112 of which it is presently aware.

23 **1. Enablement and/or Written Description Pursuant to 35** 24 **U.S.C. 112**

25 The '172 patent does not provide sufficient written description to establish
26 that the alleged inventors were in possession of the alleged inventions recited in
27 certain of the Asserted Claims at the time the '172 patent was filed. *Ariad Pharms.,*
28 *Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). In other words, the

1 applicants did not describe their purported inventions in a manner that “reasonably
2 conveys to those skilled in the art that the inventor had possession of the claimed
3 subject matter as of the filing date.” *Id.* The specification of the ’172 patent also
4 does not enable one of ordinary skill in the art to make and/or use certain recited
5 elements of the ’172 Asserted Claims without undue experimentation.

6 To the extent the following limitations are definite (under 35 U.S.C. § 112,
7 second paragraph), the ’172 patent fails to sufficiently describe or enable them as
8 required by 35 U.S.C. § 112, first paragraph:

9 “configured to physically contact” (claim 1)

10 “configured to operate in one of a lead mode and a follow mode” (claim 1)

11 “configured to operate in one of the lead mode, the follow mode, and a neutral
12 mode” (claim 5, 8, 12)

13 “operates in the neutral mode” (claim 1, 12)

14 “performs operations independently” (claim 6)

15 “ignores instructions” (claim 1)

16 **2. Indefiniteness Pursuant to 35 U.S.C. 112**

17 Several of the ’172 Asserted Claims are invalid because they fail to inform
18 those skilled in the art about the scope of the alleged invention with reasonable
19 certainty and are indefinite under 35 U.S.C. § 112, second paragraph, for failing to
20 particularly point out and distinctly claim the subject matter the applicants regard as
21 their alleged invention.

22 Certain Asserted Claims of the ’172 patent are invalid as indefinite due to the
23 following limitations which fail to inform, with reasonable certainty, those skilled in
24 the art about the scope of the invention:

25 “configured to physically contact” (claim 1)

26 “configured to operate in one of a lead mode and a follow mode” (claim 1)

27 “configured to operate in one of the lead mode, the follow mode, and a neutral
28 mode” (claim 5, 8, 12)

1 “operates in the neutral mode” (claim 1, 12)

2 “performs operations independently” (claim 6)

3 “ignores instructions” (claim 1)

4 **IX. U.S. DESIGN PATENT NO. D963,873**

5 **A. Relevant Prior Art**

6 Defendant contends that the prior art references identified in Defendant’s
7 contentions anticipate or render obvious the asserted claim of the D’873
8 patent. Based on the information reasonably available to Defendant, the priority date
9 of the asserted claim of the D’873 patent is no earlier than September 21, 2020, the
10 filing date of application no. 17/027,338 (the “’338 Application”).

11 The D’873 patent claims an “ornamental design for a floor stand for a
12 photobiomodulation therapy device.” D’873 at Claim. Notably, in its purported
13 infringement analysis in its Infringement Contentions, Plaintiff fails to identify the non-
14 functional elements of the floor stand covered by the asserted claim of the ’D873 Patent.
15 Defendant reserves its right to provide further prior art and invalidity analysis at such time
16 as Plaintiff identifies the non-functional elements covered by the asserted claim.

17 Below, Defendant lists some of the prior art cited in these contentions:

18 **3. Patents and Printed Publications**

19

Bates Number Begin	Bates Number End	Prior Art Reference
MRL00006231	MRL00006235	US D331642S
MRL00006236	MRL00006239	US D349696S
MRL00006240	MRL00006245	US D776651S1

20
21
22

23 Moreover, Defendant hereby incorporates by reference all the references cited
24 during the prosecution of the D’873 patent and those references that appear on the
25 face of the D’873 patent.

26 **B. Anticipation and Obviousness**

27 Defendant attaches Exhibit G-1, which provides exemplary disclosures
28 showing how the prior art anticipates and/or renders obvious the asserted claims of
the D’873 patent. This chart identifies primary references, and in some cases,

secondary references, and obviousness contentions. Defendant may rely on any of the primary references identified in Exhibit G-1. Defendant's anticipation contentions are presented in the following exhibits, each of which describes anticipation of the asserted claim of the D'873 patent by a primary reference:

Exhibit	Primary Reference
G-1	US D331642S to DiGiovanni ("DiGiovanni") US D776651S1 to Yates ("Yates") US D349696S to Hames ("Hames")

Defendant's obviousness contentions are also contained in Exhibit G-1

The U.S. Supreme Court in *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007) emphasized that inventions arising from ordinary innovation, ordinary skill, or common sense should not be patentable. *Id.* at 1732, 1738, 1742-1743, 1746. A patent claim may be obvious if the combination of elements was obvious to try or if there existed at the time of the invention a known problem for which there was an obvious solution encompassed by the patent's claims. When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If an ordinary designer can implement a predictable variation, Section 103 of Title 35 likely bars its patentability. *Id.* at 1740. The Court stated that courts should "look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *Id.* at 1740-41. *KSR* does not mandate evidence of a motivation or suggestion to combine prior art references. *See TGIP, Inc. v. AT&T Corp.*, 527 F. Supp. 2d 561, 580-81 (E.D. Tex. 2007). "[A] court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ" to resolve the question of obviousness. *KSR*, 127 S. Ct. at 1741.

1 Based on all of these considerations, as further detailed in Exhibit G-1, an
2 ordinary designer would have combined the teachings of the prior art references
3 discussed and charted in those exhibits with teachings from the same reference, with
4 the knowledge of an ordinary designer, and/or with teachings from other prior art
5 references as disclosed in Exhibit G-1. The combinations of these references would
6 have rendered obvious to an ordinary designer the subject matter of the asserted
7 claims of the D'873 patent. The references identified in Exhibit G-1 are analogous
8 prior art to the subject matter of the asserted claims and, for at least the reasons set
9 forth below, are properly combinable. Because these prior art references exist
10 within a single field of art, particularly one in which individuals in the field often
11 shared and/or collaborated on their work, it would have been obvious for a person of
12 skill in the art to look from one piece of prior art to another in order to find any
13 missing functionality they desired to implement. Therefore, these references
14 provide interrelated teachings and an ordinary designer would look to the concepts
15 in any of these references when seeking to solve the problems purportedly addressed
16 by the D'873 patent.

17 Numerous prior art references, including those identified in the attached
18 exhibits, reflect common knowledge and the state of the prior art before the earliest
19 claimed effective filing date of the D'873 patent. As it would be unduly
20 burdensome to create detailed claim charts for all of the invalidating combinations,
21 for at least the reasons described in these invalidity contentions, it would have been
22 obvious to an ordinary designer to combine any of a number of prior art references,
23 including any combination of those identified in the attached exhibits, to meet the
24 asserted claim of the D'873 patent. Defendant's inclusion of exemplary
25 combinations, in view of the factors and motivations identified here, does not
26 preclude Defendant from identifying other invalidating combinations and/or
27 motivations as appropriate.

28 No showing of a specific motivation to combine prior art is required to

1 combine the references disclosed above and in the attached charts, because each
2 combination of art would have no unexpected results, and at most would simply
3 represent a known alternative to an ordinary designer. *See KSR*, 127 S. Ct. at 1739-
4 40 (rejecting the Federal Circuit’s “rigid” application of the teaching, suggestion, or
5 motivation to combine test, instead espousing an “expansive and flexible”
6 approach). Indeed, the Supreme Court held that a person of ordinary skill in the art
7 is “a person of ordinary creativity, not an automaton” and “in many cases a person
8 of ordinary skill in the art will be able to fit the teachings of multiple patents
9 together like pieces of a puzzle.” *Id.* at 1742. Nevertheless, in addition to the
10 information contained herein, Defendant hereby identifies additional motivations
11 and reasons to combine the cited art.

12 One or more combinations of the prior art references identified herein, with
13 itself, the knowledge of an ordinary designer, or with other references, would have
14 been obvious because these references would have been combined using: known
15 methods to yield predictable results; known techniques in the same way; a simple
16 substitution of one known, equivalent element for another to obtain predictable
17 results; and/or a teaching, suggestion, or motivation in the prior art generally. In
18 addition, it would have been obvious to combine the prior art references identified
19 above because there were only a finite number of predictable solutions and/or
20 because known work in one field of endeavor prompts variations based on
21 predictable design incentives and/or market forces either in the same field or a
22 different one. In addition, the combinations of the prior art references identified
23 above would have been obvious because the combinations represent the known
24 potential options with a reasonable expectation of success.

25 Additional evidence that there would have been a motivation or reason to
26 combine the prior art references identified above includes the interrelated teachings
27 of multiple prior art references; the effects of demands known to the design
28 community or present in the marketplace; the existence of a known problem for

1 which there was an obvious solution; the existence of a known need or problem in
2 the field of endeavor at the time of the invention; and the background knowledge
3 that would have been possessed by a person having ordinary skill in the art. For
4 example, the prior art references are generally directed to the same problems. Thus,
5 an ordinary designer seeking to solve these problems would look to these cited
6 references in combination.

7 Thus, the motivation or reason to combine the teachings of the prior art
8 references disclosed herein is found in the references themselves and in: (1) the
9 nature of the problems being solved; (2) the express, implied, and inherent teachings
10 of the prior art; (3) the knowledge of an ordinary designer; (4) the fact that the prior
11 art is generally directed towards the same problems; and/or (5) the predictable
12 results obtained in combining the different elements of the prior art; (6) the use of a
13 known technique to improve similar devices, methods, or products in the same way;
14 (7) the predictable results obtained in applying a known technique to a known
15 device, method, or product ready for improvement; (8) the finite number of
16 identified predictable solutions that had a reasonable expectation of success; and (9)
17 known work in various technological fields that could be applied to the same or
18 different technological fields based on design incentives or other market forces.

19 Defendant incorporates by reference prior art from the prosecution histories
20 and background sections of the D'873 patent. Defendant expects to rely on the
21 testimony of one or more expert witnesses and documents referenced by those
22 expert witnesses in support of these contentions and incorporate those forthcoming
23 expert reports as if fully set forth herein.⁷

24 Defendant contends that there are no secondary considerations of non-
25 obviousness evidencing the validity of the asserted claim. Secondary considerations
26 of non-obviousness, also referred to as objective indicia of non-obviousness, "can

27
28 ⁷ All such expert reports and testimony will be produced and provided pursuant to the
applicable deadlines in the Court's Scheduling Order (ECF #034).

1 include copying, long felt but unsolved need, failure of others, commercial success,
2 unexpected results created by the claimed invention, unexpected properties of the
3 claimed invention, licenses showing industry respect for the invention, awards or
4 other industry praise for the invention, and skepticism of skilled artisans before the
5 invention.” *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711
6 F.3d 1348, 1368 (Fed. Cir. 2013). “A nexus between the merits of the claimed
7 invention and evidence of secondary considerations is required in order for the
8 evidence to be given substantial weight in an obviousness decision.” *Ruiz v. A.B.*
9 *Chance Co.*, 234 F.3d 654, 668 (Fed. Cir. 2000). Moreover, even if a nexus exists,
10 secondary considerations of non-obviousness “simply cannot overcome [a] strong
11 prima facie showing of obviousness.” *Sundance, Inc. v. DeMonte Fabricating Ltd.*,
12 550 F.3d 1356, 1368 (Fed. Cir. 2008). Plaintiff has not established the existence of
13 any objective indicia of non-obviousness or secondary considerations. Defendant
14 reserves the right to supplement their contentions to respond to any such evidence
15 should Plaintiff identify any. While discovery in this case is ongoing, and
16 Defendant’s investigation continues (which will include expert discovery), to the
17 extent Plaintiff contends that the asserted claim is not obvious based on secondary
18 considerations recognized by relevant authority Defendant contends such allegations
19 are without merit. For example, Plaintiff has provided no evidence of copying of the
20 purported inventions of the asserted claims. Similarly, Plaintiff has provided no
21 evidence of any failure of others to realize any purported invention of the asserted
22 claim, or any evidence of any long felt but unsolved need solved by the purported
23 invention of the asserted claim. *Id.* To the contrary, the lack of novelty and
24 widespread availability of floor stands for devices, including light therapy devices,
25 as demonstrated by the prior art is contrary evidence of any long-felt need for the
26 purported inventions of the asserted claims.

27 Plaintiff also has not identified any evidence that the purported invention of
28 the asserted claim has enjoyed any commercial success. To the extent that Plaintiff

1 claims that sales of any accused products constitutes commercial success, Plaintiff
2 has not identified any evidence of any nexus between the claimed invention and
3 such alleged commercial success. Moreover, any commercial success of the
4 accused products may be due to factors other than the merits of the asserted claim,
5 including functional features, marketing efforts or other financial or economic
6 incentives related to the sale or distribution of the accused product. Plaintiff also
7 has provided no evidence of unexpected results or unexpected properties in the
8 purported invention of the asserted claim. *Id.* Additionally, there is no evidence of
9 any licenses showing industry respect for the purported invention of the asserted
10 claim, and also no evidence of any awards or other industry praise for any purported
11 invention of the asserted claim. Finally, Plaintiff has provided no evidence of any
12 skepticism of an ordinary designer prior to the purported invention of the asserted
13 claim; to the contrary, the prior art identified herein establishes not only a lack of
14 skepticism but an appreciation that the purported invention of the asserted claim was
15 known to ordinary designers.

16
17 Dated: November 20, 2023.

Respectfully Submitted,

18
19 By: /s/Jeffrey T. Lindgren

20 Jeffrey T. Lindgren (Admitted *Pro Hac Vice*)

21 Richard C. Vasquez (Admitted *Pro Hac Vice*)

22 Eric W. Benisek (Admitted *Pro Hac Vice*)

Robert S. McArthur (Admitted *Pro Hac Vice*)

Vasquez Benisek & Lindgren LLP

1550 Parkside Drive, Suite 130

Walnut Creek, CA 94596

Telephone: 925-627-4250

Fax: 925-903-0403

Email: jlindgren@vbllaw.com

Email: rvasquez@vbllaw.com

Email: ebenisek@vbllaw.com

Email: mcarthur@vbllaw.com

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

Kenneth M. Motolenich-Salas (Bar No. 027499)
Of Counsel to RM Warner P.L.C.
8283 North Hayden Road Suite 229
Scottsdale, AZ 85258
Telephone: 866-570-8585
E-mail: ken@motosalaslaw.com

Raees Mohammed (Bar No. 027418)
Michael B. Dvoren (Bar No. 027386)
RM Warner, P.L.C.
8283 North Hayden Road, Suite 229
Scottsdale, AZ 85258
Telephone: 480-331-9397
Fax: 866-961-4984
Email: raees@rmwarner.com
michael@rmwarnerlaw.com

Attorneys for Defendant Mito Red Light, Inc.