#### (12)

## **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3: 16.10.2024 Bulletin 2024/42

(43) Date of publication A2: 21.08.2024 Bulletin 2024/34

(21) Application number: 24186323.2

(22) Date of filing: 18.12.2020

(51) International Patent Classification (IPC):

A61N 5/067 (2006.01) A61B 18/20 (2006.01)

G06F 21/31 (2013.01)

(52) Cooperative Patent Classification (CPC): A61N 5/0613; A61B 18/203; A61N 5/067; G06F 21/31; G06F 21/44; G16H 10/60; G16H 20/10; G16H 20/40; A61B 2018/00452

(84) Designated Contracting States:

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

(30) Priority: 23.12.2019 US 201962952793 P

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC: 20907047.3 / 4 081 151

(71) Applicant: Avava, Inc.
Waltham MA 02451 (US)

(72) Inventors:

 BHAWALKAR, Jayant Auburndale, MA 02466 (US)

LEVINE, Lewis J.
 Marlborough, MA 01752 (US)

 DRESSER, Charles Holland Wayland, MA 01778 (US)

 KATKAM, Rajender Waltham, MA 02453 (US)

(74) Representative: LKGLOBAL Lorenz & Kopf Patentanwalt Attorney at Law PartG mbB Brienner Straße 11 80333 München (DE)

# (54) SYSTEMS, METHODS AND COMPUTER-ACCESSIBLE MEDIUM FOR A FEEDBACK ANALYSIS AND/OR TREATMENT OF AT LEAST ONE PATIENT USING AN ELECTROMAGNETIC RADIATION TREATMENT DEVICE

A system is proposed, comprising an electromagnetic radiation (EMR) treatment device configured to generate a treatment EMR beam to treat a patient tissue afflicted with a condition, the EMR treatment device being operable at a set of base parameters; at least one processor; and at least one non-transitory computer-readable storage medium storing instructions thereon that, when executed by the at least one processor, cause the at least one processor to perform a method including the steps of receive patient data from a remote network in electronic communication with the at least one processor, the patient data including at least one pretreatment image of the patient tissue; determine one or more recommended changes to the set of base treatment parameters based on the received patient data; offer the determined one or more recommended changes to a treatment operator; and append the patient data with at least one posttreatment image of the patient tissue.

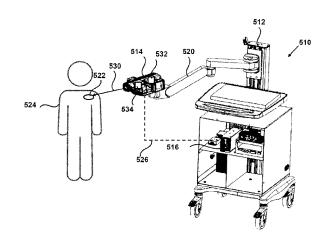


FIG. 5

EP 4 417 251 A3



## **EUROPEAN SEARCH REPORT**

**Application Number** 

EP 24 18 6323

5

10	
15	
20	
25	
30	
35	
40	

50

45

55

	DOCUMENTS CONSIDERED			
Category	Citation of document with indicatio of relevant passages	n, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2013/158440 A1 (ALLI 20 June 2013 (2013-06-2		15,17	A61N5/067 A61B18/20
Y	* the whole document *		4,5,8, 12,13,16	G06F21/31
Y	US 2004/206365 A1 (KNOW [US]) 21 October 2004 ( * paragraph [0193] - pa	2004-10-21) ragraph [0210] *	4,12	
У	US 2002/049432 A1 (MUKA 25 April 2002 (2002-04- * claim 1 *	25)	5,13	
Y	US 2018/154167 A1 (KIM AL) 7 June 2018 (2018-0 * claim 1 *	6-07)	8,16	
Y	AU 2011 319 475 A1 (EUR 23 May 2013 (2013-05-23	)	8,16	
	* page 9, line 3 - line 10 *			TECHNICAL FIELDS SEARCHED (IPC)
				A61B A61N
	The present search report has been di	·	-	Examiner
	Munich	6 September 2024	ate of completion of the search  September 2024 Bec	
X : part Y : part doci A : tech	ATEGORY OF CITED DOCUMENTS  icularly relevant if taken alone icularly relevant if combined with another ument of the same category anological background -written disclosure rmediate document	T : theory or principle E : earlier patent doc after the filing dat D : document cited in L : document cited fo	e underlying the issument, but publise e n the application or other reasons	vention shed on, or

## EP 4 417 251 A3

## ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 24 18 6323

5

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

06-09-2024

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
	US 2013158440 A	1 20-06-2013	EP 2346428 A1 US 2010081971 A1 US 2013158440 A1	27-07-2011 01-04-2010 20-06-2013
15			WO 2010036732 A1	01-04-2010
	US 2004206365 A	1 21-10-2004	NONE	
20	US 2002049432 A	1 25-04-2002	DE 60120276 T2 EP 1166723 A2	24-05-2007 02-01-2002
			JP 2002011106 A US 2002049432 A1	15-01-2002 25-04-2002
	US 2018154167 A	1 07-06-2018	CN 107710273 A	16-02-2018
25			EP 3457350 A1	20-03-2019
			JP 6916743 B2 JP 2019520091 A	11-08-2021 18-07-2019
			JP 2019520091 A KR 20170127362 A	21-11-2017
			KR 20200120579 A	21-10-2020
30			US 2018154167 A1	07-06-2018
30	AU 2011319475 A	1 23-05-2013	AU 2011319475 A1	23-05-2013
			BR 112013009585 A2	12-07-2016
			EP 2629692 A1	28-08-2013
			FR 2966339 A1 WO 2012052975 A1	27-04-2012 26-04-2012
35				20 04 2012
40				
45				
-				
50				
55	FORM P0459			

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82