



- (51) International Patent Classification: *A61B 5/087* (2006.01)
- (21) International Application Number: PCT/US2009/036241
- (22) International Filing Date: 5 March 2009 (05.03.2009)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:

61/034,099	5 March 2008 (05.03.2008)	US
61/090,541	20 August 2008 (20.08.2008)	US
- (71) Applicant (for all designated States except US): **PULMONARY DATA SYSTEMS, INC.** [US/US]; 1835 Sunset Cliffs Boulevard, Suite 202, Saan Diego, CA 92107 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **SUTTON, George** [US/US]; 5714 La Jolla Hermosa Avenue, La Jolla, CA 92037 (US). **WHITEBOOK, Mark** [US/US]; 34661 Calle Rosita, Capistrano Beach, CA 92624 (US).
- (74) Agent: **TAYLOR, Stacy, L.**; DLA Piper LLP (US), 4365 Executive Drive, Suite 1100, San Diego, CA 92121-2133 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: SYSTEM INCLUDING METHOD AND DEVICE FOR IDENTIFICATION AND MONITORING OF PULMONARY DATA

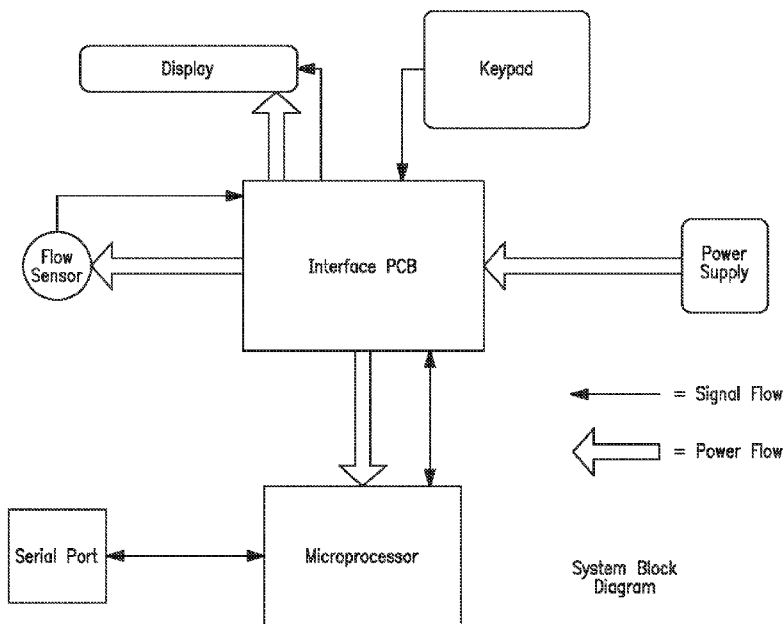


FIG. 5

(57) Abstract: The invention relates to a method and device including a system for identification and monitoring of pulmonary data. The invention allows for the collection of pulmonary function test data as well as the ability to compare and correlate newly collected data with historic patient data. The invention also allows for the ability to identify individual patients based on the analysis of pulmonary characteristics unique to the individual, such as measures of lung function to ensure integrity of a patient's historical data.

WO 2009/111671 A3



Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
18 June 2015

(15) Information about Correction:

Previous Correction:
see Notice of 30 December 2009

A. CLASSIFICATION OF SUBJECT MATTER**A61B 5/087(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A61B 5/087; H04L 9/32; A61B 5/117; G06K 9/00; A61B 5/0402; A61B 5/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: identify, patient, pulmonary, respiration, airflow, compare

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003-0135097 A1 (MARK D. WIEDERHOLD et al.) 17 July 2003 See abstract, paragraphs [0080]-[0085],[0183]-[0189], claims 1-3 and figure 25.	1,12
Y		2,6,7,11,13
A		3-5,8-10,14-16
Y	JP 2006-346221 A (HEART METRICS K.K. et al.) 28 December 2006 See abstract, paragraphs [0025]-[0034], claims 1-7,12-17 and figures 3,4.	2,6,7,11,13
A	US 2001-0021801 A1 (GUST H. BARDY) 13 September 2001 See abstract, paragraphs [0041]-[0045],[0060]-[0064] and figures 1A,3,4.	1-16
A	KR 10-2007-0085857 A (IDESIA LTD.) 27 August 2007 See abstract, pages 30-35, claims 1-11 and figures 1-9.	1-16
A	KR 10-2006-0053812 A (SAMSUNG ELECTRONICS CO., LTD.) 22 May 2006 See abstract, pages 3-5, claim 1 and figures 1,2.	1-16

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family


Date of the actual completion of the international search

06 May 2015 (06.05.2015)

Date of mailing of the international search report

07 May 2015 (07.05.2015)

Name and mailing address of the ISA/KR

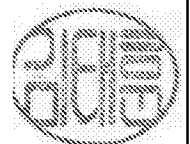

 International Application Division
 Korean Intellectual Property Office
 189 Cheongsa-ro, Seo-gu, Daejeon Metropolitan City, 302-701,
 Republic of Korea

Facsimile No. ++82 42 472 7140

Authorized officer

KIM, Tae Hoon

Telephone No. +82-42-481-8407



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2009/036241

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003-0135097 A1	17/07/2003	AU 2002-322302 A1 US 6993378 B2 WO 03-000015 A2 WO 03-000015 A3	08/01/2003 31/01/2006 03/01/2003 23/10/2003
JP 2006-346221 A	28/12/2006	None	
US 2001-0021801 A1	13/09/2001	AU 2000-036385 A1 AU 2000-036385 B2 AU 2000-048746 A1 AU 2000-048746 B2 AU 2000-048747 A1 AU 2000-048747 B2 CA 2309409 A1 CA 2314513 A1 CA 2314517 A1 EP 1057448 A1 EP 1057448 B1 EP 1072994 A2 EP 1072994 A3 EP 1072994 B1 EP 1107158 A1 EP 1107158 B1 US 2001-0007053 A1 US 2001-0011153 A1 US 2001-0025138 A1 US 2001-0037057 A1 US 2001-0051764 A1 US 2002-0022776 A1 US 2002-0026104 A1 US 2002-0052542 A1 US 2002-0099301 A1 US 2003-0023177 A1 US 2003-0125611 A1 US 2003-0195397 A1 US 2004-0039260 A1 US 2004-0039261 A1 US 2004-0039262 A1 US 2004-0039264 A1 US 2004-0044274 A1 US 2004-0147979 A1 US 2004-0147980 A1 US 2004-0147981 A1 US 2005-0154267 A1 US 2005-0165286 A1 US 2005-0171411 A1 US 2005-0182308 A1 US 2005-0182309 A1 US 2005-0228243 A1	14/12/2000 23/05/2002 01/03/2001 01/05/2003 15/02/2001 17/04/2003 03/12/2000 26/01/2001 26/01/2001 06/12/2000 18/07/2007 31/01/2001 07/02/2001 21/04/2004 13/06/2001 26/03/2008 05/07/2001 02/08/2001 27/09/2001 01/11/2001 13/12/2001 21/02/2002 28/02/2002 02/05/2002 25/07/2002 30/01/2003 03/07/2003 16/10/2003 26/02/2004 26/02/2004 26/02/2004 26/02/2004 04/03/2004 29/07/2004 29/07/2004 29/07/2004 14/07/2005 28/07/2005 04/08/2005 18/08/2005 18/08/2005 13/10/2005

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2009/036241

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		US 2006-0253006 A1	09/11/2006
		US 2007-0027723 A1	01/02/2007
		US 2007-0083241 A1	12/04/2007
		US 2007-0100667 A1	03/05/2007
		US 2007-0179357 A1	02/08/2007
		US 2007-0265510 A1	15/11/2007
		US 2007-0293738 A1	20/12/2007
		US 2007-0293739 A1	20/12/2007
		US 2007-0293740 A1	20/12/2007
		US 2007-0293741 A1	20/12/2007
		US 2007-0293772 A1	20/12/2007
		US 2008-0194927 A1	14/08/2008
		US 2008-0208014 A1	28/08/2008
		US 2010-0185063 A1	22/07/2010
		US 2011-0046493 A1	24/02/2011
		US 2014-0309941 A1	16/10/2014
		US 6203495 B1	20/03/2001
		US 6221011 B1	24/04/2001
		US 6261230 B1	17/07/2001
		US 6270457 B1	07/08/2001
		US 6277072 B1	21/08/2001
		US 6280380 B1	28/08/2001
		US 6312378 B1	06/11/2001
		US 6331160 B1	18/12/2001
		US 6358203 B2	19/03/2002
		US 6478737 B2	12/11/2002
		US 6527714 B2	04/03/2003
		US 6607485 B2	19/08/2003
		US 6705991 B2	16/03/2004
		US 6852080 B2	08/02/2005
		US 6860897 B2	01/03/2005
		US 6866629 B2	15/03/2005
		US 6887201 B2	03/05/2005
		US 6893397 B2	17/05/2005
		US 6905463 B2	14/06/2005
		US 6908431 B2	21/06/2005
		US 6926668 B2	09/08/2005
		US 6945934 B2	20/09/2005
		US 6960167 B2	01/11/2005
		US 6974413 B2	13/12/2005
		US 6997873 B2	14/02/2006
		US 7070562 B2	04/07/2006
		US 7104955 B2	12/09/2006
		US 7134996 B2	14/11/2006
		US 7144369 B2	05/12/2006
		US 7147600 B2	12/12/2006
		US 7248916 B2	24/07/2007
		US 7429243 B2	30/09/2008
		US 7837629 B2	23/11/2010
		US 8277378 B2	02/10/2012

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2009/036241

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		US 8308650 B2	13/11/2012
		US 8556810 B2	15/10/2013
		US 8702603 B2	22/04/2014
		US 8888698 B2	18/11/2014
KR 10-2007-0085857 A	27/08/2007	AU 2003-256693 A1	16/02/2004
		AU 2003-256693 B2	01/05/2008
		AU 2005-310994 A1	08/06/2006
		CA 2494491 A1	05/02/2004
		CA 2494491 C	02/11/2010
		CA 2586772 A1	08/06/2006
		CA 2586772 C	13/01/2015
		CA 2587214 A1	11/05/2006
		CN 101263510 A	10/09/2008
		CN 101421744 A	29/04/2009
		CN 101421744 B	05/06/2013
		CN 1672357 C	21/09/2005
		EP 1525710 A1	27/04/2005
		EP 1815386 A1	08/08/2007
		EP 1815391 A2	08/08/2007
		JP 2005-534378 A	17/11/2005
		JP 2008-518708 A	05/06/2008
		JP 2008-518709 A	05/06/2008
		JP 4562078 B2	13/10/2010
		JP 4782141 B2	28/09/2011
		KR 10-0944443 B1	25/02/2010
		KR 10-1019838 B1	04/03/2011
		KR 10-1019844 B1	04/03/2011
		KR 10-2008-0106481 A	05/12/2008
		KR 10-2010-0095659 A	31/08/2010
		US 2005-0281439 A1	22/12/2005
		US 2006-0013445 A1	19/01/2006
		US 2006-0136744 A1	22/06/2006
		US 7171680 B2	30/01/2007
		US 7689833 B2	30/03/2010
		WO 2004-012388 A1	05/02/2004
		WO 2006-048701 A2	11/05/2006
		WO 2006-059190 A2	08/06/2006
		WO 2006-059190 A3	21/02/2008
KR 10-2006-0053812 A	22/05/2006	US 2006-0106571 A1	18/05/2006
		US 7617058 B2	10/11/2009