



(11) **EP 3 130 282 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**12.04.2017 Bulletin 2017/15**

(43) Date of publication A2:  
**15.02.2017 Bulletin 2017/07**

(21) Application number: **16181089.0**

(22) Date of filing: **25.07.2016**

(51) Int Cl.:  
**A61B 5/00** (2006.01) **A61B 5/11** (2006.01)  
**G06Q 30/02** (2012.01) **G06F 17/00** (2006.01)  
**G06F 19/00** (2011.01) **G02C 7/04** (2006.01)  
**A61B 5/021** (2006.01) **A61B 5/024** (2006.01)  
**A61B 5/01** (2006.01) **A61B 5/145** (2006.01)  
**A61B 5/1455** (2006.01)

(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**  
Designated Extension States:  
**BA ME**  
Designated Validation States:  
**MA MD**

(30) Priority: **24.07.2015 US 201562196513 P**  
**26.01.2016 US 201615006370**  
**30.06.2016 US 201615198316**

(71) Applicant: **Johnson & Johnson Vision Care, Inc.**  
**Jacksonville, FL 32256 (US)**

(72) Inventors:  
• **FLITSCH, Frederick A.**  
**New Windsor, NY 12553 (US)**  
• **GONZALEZ, Jorge**  
**Washington, DC 20001 (US)**  
• **PUGH, Randall B.**  
**Jacksonville, FL 32256 (US)**

(74) Representative: **Carpmaels & Ransford LLP**  
**One Southampton Row**  
**London WC1B 5HA (GB)**

(54) **BIOMEDICAL DEVICES FOR BIOMETRIC BASED INFORMATION COMMUNICATION**

(57) Methods and apparatus to form a biometric based information communication system are described. In some examples, the biometric based information communication system comprises biomedical devices with sensing means, wherein the sensing means produces a biometric result. The communication system may convey

the biometric results to a processing system which may include resources such as servers to store the results in personalized databases. A biometric measurement result may trigger a communication of a biometric based information communication message based on the current measurement and historical measurements.

**EP 3 130 282 A3**



## EUROPEAN SEARCH REPORT

 Application Number  
 EP 16 18 1089

5

10

15

20

25

30

35

40

45

50

55

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                              |                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Category                                                                                                                                                                                                                                               | Citation of document with indication, where appropriate, of relevant passages                                                                                                                                                                            | Relevant to claim                                                                                                                                                                                                                                                            | CLASSIFICATION OF THE APPLICATION (IPC)                                         |
| X                                                                                                                                                                                                                                                      | US 2015/141772 A1 (LEBOEUF STEVEN FRANCIS [US] ET AL) 21 May 2015 (2015-05-21)<br>* paragraphs [0002] - [0011] *<br>* paragraphs [0077] - [0115] *<br>* paragraphs [0132] - [0144] *<br>* paragraphs [0017] - [0019] *<br>* paragraphs [0120] - [0124] * | 1-11,<br>13-15                                                                                                                                                                                                                                                               | INV.<br>A61B5/00<br>A61B5/11<br>G06Q30/02<br>G06F17/00<br>G06F19/00<br>G02C7/04 |
| X                                                                                                                                                                                                                                                      | US 2014/240124 A1 (BYCHKOV DAVID [US]) 28 August 2014 (2014-08-28)                                                                                                                                                                                       | 1-9                                                                                                                                                                                                                                                                          | ADD.<br>A61B5/021<br>A61B5/024<br>A61B5/01<br>A61B5/145<br>A61B5/1455           |
| A                                                                                                                                                                                                                                                      | * paragraphs [0002] - [0047] *                                                                                                                                                                                                                           | 10-15                                                                                                                                                                                                                                                                        |                                                                                 |
| X                                                                                                                                                                                                                                                      | EP 2 732 761 A1 (HILL ROM SERVICES INC [US]) 21 May 2014 (2014-05-21)                                                                                                                                                                                    | 7-9                                                                                                                                                                                                                                                                          |                                                                                 |
| A                                                                                                                                                                                                                                                      | * paragraphs [0004] - [0017] *<br>* paragraph [0028] *                                                                                                                                                                                                   | 10-15                                                                                                                                                                                                                                                                        |                                                                                 |
| X                                                                                                                                                                                                                                                      | US 2014/378786 A1 (HONG JUNG OOK [US] ET AL) 25 December 2014 (2014-12-25)                                                                                                                                                                               | 10-15                                                                                                                                                                                                                                                                        |                                                                                 |
| A                                                                                                                                                                                                                                                      | * abstract *<br>* paragraphs [0036] - [0044] *<br>* paragraphs [0078] - [0084] *<br>* paragraphs [0141] - [0155] *<br>* paragraph [0073] *<br>* paragraphs [0177] - [0179] *                                                                             | 1-9                                                                                                                                                                                                                                                                          | TECHNICAL FIELDS SEARCHED (IPC)<br><br>A61B<br>G06Q<br>G06F<br>G02C             |
| A                                                                                                                                                                                                                                                      | US 2015/065905 A1 (PUGH RANDALL BRAXTON [US]) 5 March 2015 (2015-03-05)<br>* paragraphs [0006] - [0007] *<br>* paragraphs [0030], [0049] - [0050] *<br>* paragraphs [0067] - [0074] *<br>* paragraph [0081] *                                            | 1-9,12                                                                                                                                                                                                                                                                       |                                                                                 |
| A                                                                                                                                                                                                                                                      | JP 2007 275490 A (MIWATEC KK) 25 October 2007 (2007-10-25)<br>* abstract; figure 1 *                                                                                                                                                                     | 1-15                                                                                                                                                                                                                                                                         |                                                                                 |
|                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                          | -/--                                                                                                                                                                                                                                                                         |                                                                                 |
| The present search report has been drawn up for all claims                                                                                                                                                                                             |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                              |                                                                                 |
| Place of search<br><b>The Hague</b>                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                          | Date of completion of the search<br><b>6 March 2017</b>                                                                                                                                                                                                                      | Examiner<br><b>Loveniers, Kris</b>                                              |
| CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |                                                                                                                                                                                                                                                          | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |                                                                                 |

EPO FORM 1503 03.02 (P04C01)



## EUROPEAN SEARCH REPORT

Application Number  
EP 16 18 1089

5

10

15

20

25

30

35

40

45

50

55

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                    |                                                                                                                                                    |                                                                                                                                                                                                                                                                                       |                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Category                                                                                                                                                                                                                                               | Citation of document with indication, where appropriate, of relevant passages                                                                      | Relevant to claim                                                                                                                                                                                                                                                                     | CLASSIFICATION OF THE APPLICATION (IPC) |
| A                                                                                                                                                                                                                                                      | US 2014/240665 A1 (PUGH RANDALL BRAXTON [US] ET AL) 28 August 2014 (2014-08-28)<br>* paragraphs [0007] - [0046] *<br>* paragraph [0106] *<br>----- | 1-9,12                                                                                                                                                                                                                                                                                |                                         |
|                                                                                                                                                                                                                                                        |                                                                                                                                                    |                                                                                                                                                                                                                                                                                       | TECHNICAL FIELDS SEARCHED (IPC)         |
|                                                                                                                                                                                                                                                        |                                                                                                                                                    |                                                                                                                                                                                                                                                                                       |                                         |
| The present search report has been drawn up for all claims                                                                                                                                                                                             |                                                                                                                                                    |                                                                                                                                                                                                                                                                                       |                                         |
| Place of search<br><b>The Hague</b>                                                                                                                                                                                                                    |                                                                                                                                                    | Date of completion of the search<br><b>6 March 2017</b>                                                                                                                                                                                                                               | Examiner<br><b>Loveniers, Kris</b>      |
| CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |                                                                                                                                                    | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>.....<br>& : member of the same patent family, corresponding document |                                         |

 3  
EPO FORM 1503 03/02 (P04C01)



Application Number

EP 16 18 1089

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION**  
**SHEET B**

Application Number

EP 16 18 1089

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-9

A system/method for biometric based information communication including a database on a content server comprising historical records with a timestamp and the biometric data or a collection over a period of time

---

2. claims: 10-15

A method for biometric based information communication, comprising determining a location of a biometric device, storing the biometric data and the location data in a server database, and obtaining environmental data from a weather based database.

---

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

EP 16 18 1089

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.

06-03-2017

10

15

20

25

30

35

40

45

50

55

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|-------------------------------------------|---------------------|----------------------------|---------------------|
| US 2015141772 A1                          | 21-05-2015          | US 2008146892 A1           | 19-06-2008          |
|                                           |                     | US 2011098112 A1           | 28-04-2011          |
|                                           |                     | US 2011106627 A1           | 05-05-2011          |
|                                           |                     | US 2012197737 A1           | 02-08-2012          |
|                                           |                     | US 2012203081 A1           | 09-08-2012          |
|                                           |                     | US 2012226111 A1           | 06-09-2012          |
|                                           |                     | US 2012226112 A1           | 06-09-2012          |
|                                           |                     | US 2014275855 A1           | 18-09-2014          |
|                                           |                     | US 2014287833 A1           | 25-09-2014          |
|                                           |                     | US 2014288396 A1           | 25-09-2014          |
|                                           |                     | US 2015141772 A1           | 21-05-2015          |
|                                           |                     | US 2016317049 A1           | 03-11-2016          |
| -----                                     |                     |                            |                     |
| US 2014240124 A1                          | 28-08-2014          | NONE                       |                     |
| -----                                     |                     |                            |                     |
| EP 2732761 A1                             | 21-05-2014          | EP 2732761 A1              | 21-05-2014          |
|                                           |                     | US 2014139405 A1           | 22-05-2014          |
|                                           |                     | US 2014145915 A1           | 29-05-2014          |
| -----                                     |                     |                            |                     |
| US 2014378786 A1                          | 25-12-2014          | CN 104921702 A             | 23-09-2015          |
|                                           |                     | US 2014278139 A1           | 18-09-2014          |
|                                           |                     | US 2014303523 A1           | 09-10-2014          |
|                                           |                     | US 2014378786 A1           | 25-12-2014          |
|                                           |                     | US 2014378872 A1           | 25-12-2014          |
| -----                                     |                     |                            |                     |
| US 2015065905 A1                          | 05-03-2015          | AU 2014311520 A1           | 10-03-2016          |
|                                           |                     | CA 2922472 A1              | 05-03-2015          |
|                                           |                     | CN 105682548 A             | 15-06-2016          |
|                                           |                     | EP 3038524 A1              | 06-07-2016          |
|                                           |                     | JP 2016529561 A            | 23-09-2016          |
|                                           |                     | KR 20160048884 A           | 04-05-2016          |
|                                           |                     | TW 201521677 A             | 16-06-2015          |
|                                           |                     | US 2015065905 A1           | 05-03-2015          |
|                                           |                     | WO 2015031241 A1           | 05-03-2015          |
| -----                                     |                     |                            |                     |
| JP 2007275490 A                           | 25-10-2007          | NONE                       |                     |
| -----                                     |                     |                            |                     |
| US 2014240665 A1                          | 28-08-2014          | AU 2013204435 A1           | 11-09-2014          |
|                                           |                     | BR 102014004476 A2         | 01-12-2015          |
|                                           |                     | CA 2843125 A1              | 28-08-2014          |
|                                           |                     | CN 104013382 A             | 03-09-2014          |
|                                           |                     | EP 2772787 A1              | 03-09-2014          |
|                                           |                     | HK 1201594 A1              | 04-09-2015          |
|                                           |                     | JP 2014170208 A            | 18-09-2014          |
|                                           |                     | KR 20140108077 A           | 05-09-2014          |
|                                           |                     | RU 2013128239 A            | 27-12-2014          |

EPO FORM P0459

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

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

EP 16 18 1089

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.

06-03-2017

| 10 | Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|----|-------------------------------------------|---------------------|----------------------------|---------------------|
|    |                                           |                     | SG 2013021373 A            | 26-09-2014          |
|    |                                           |                     | TW 201433847 A             | 01-09-2014          |
| 15 |                                           |                     | US 2014240665 A1           | 28-08-2014          |
|    |                                           |                     | -----                      |                     |
| 20 |                                           |                     |                            |                     |
| 25 |                                           |                     |                            |                     |
| 30 |                                           |                     |                            |                     |
| 35 |                                           |                     |                            |                     |
| 40 |                                           |                     |                            |                     |
| 45 |                                           |                     |                            |                     |
| 50 |                                           |                     |                            |                     |
| 55 |                                           |                     |                            |                     |

EPO FORM P0459

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

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |            |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------------|
| 专利名称(译)        | 用于生物识别信息通信的生物医学设备                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |         |            |
| 公开(公告)号        | <a href="#">EP3130282A3</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 公开(公告)日 | 2017-04-12 |
| 申请号            | EP2016181089                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 申请日     | 2016-07-25 |
| [标]申请(专利权)人(译) | 庄臣及庄臣视力保护公司                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |            |
| 申请(专利权)人(译)    | 强生视力护理，INC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |            |
| 当前申请(专利权)人(译)  | 强生视力护理，INC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |            |
| [标]发明人         | FLITSCH FREDERICK A<br>GONZALEZ JORGE<br>PUGH RANDALL B                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |         |            |
| 发明人            | FLITSCH, FREDERICK A.<br>GONZALEZ, JORGE<br>PUGH, RANDALL B.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |         |            |
| IPC分类号         | A61B5/00 A61B5/11 G06Q30/02 G06F17/00 G06F19/00 G02C7/04 A61B5/021 A61B5/024 A61B5/01<br>A61B5/145 A61B5/1455 G16H10/60                                                                                                                                                                                                                                                                                                                                                                                                    |         |            |
| CPC分类号         | A61B5/04 G01S19/14 G06F16/23 G06F19/3418 G06Q30/00 G06Q50/24 G16H10/60 H04L67/12<br>H04L67/18 H04W4/02 A61B5/0015 A61B5/6802 A61B5/681 A61B5/0022 A61B5/01 A61B5/021 A61B5<br>/024 A61B5/1112 A61B5/14532 A61B5/14542 A61B5/14546 A61B5/14551 A61B5/6803 A61B5/6821<br>A61B5/6898 A61B5/7275 A61B5/7405 A61B5/742 A61B5/7455 A61B2560/0242 G06Q30/0269 G16H40<br>/67 H04W4/029 H04W4/80 A61B3/112 A61B3/113 A61B3/16 A61B5/0004 A61B5/0008 A61B5/02438<br>A61B5/14552 A61B5/6804 A61B5/682 G06F21/6245 H04L67/42 H04W88/02 |         |            |
| 优先权            | 62/196513 2015-07-24 US<br>15/006370 2016-01-26 US<br>15/198316 2016-06-30 US                                                                                                                                                                                                                                                                                                                                                                                                                                              |         |            |
| 其他公开文献         | EP3130282A2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |            |
| 外部链接           | <a href="#">Espacenet</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |            |

## 摘要(译)

描述了形成基于生物测定的信息通信系统的方法和装置。在一些示例中，基于生物测定的信息通信系统包括具有感测装置的生物医学装置，其中感测装置产生生物测定结果。通信系统可以将生物测定结果传达给处理系统，该处理系统可以包括诸如服务器的资源以将结果存储在个性化数据库中。生物测量结果可以基于当前测量和历史测量触发基于生物测定的信息通信消息的通信。

