

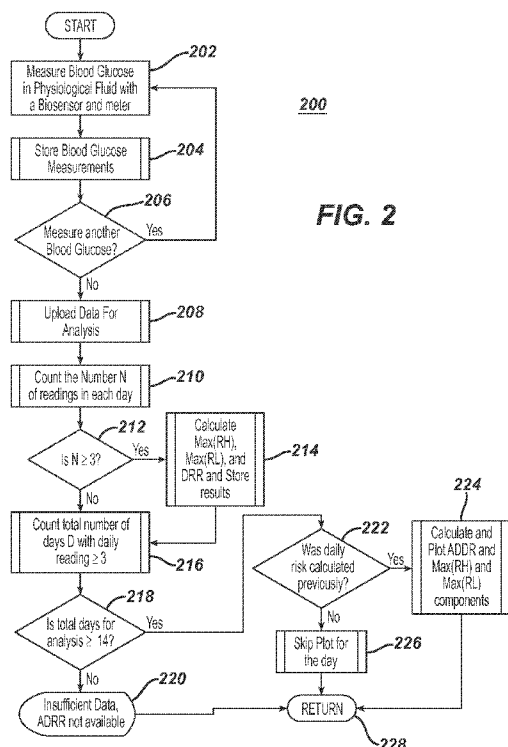


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A61B 5/00 (2006.01)
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- (74) **Agents:** JOHNSON, Philip S. et al.; Johnson & Johnson, One Johnson & Johnson Plaza, New Brunswick, New Jersey 08933 (US).
- (81) **Designated States** (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, 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, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,

[Continued on next page]

(54) **Title:** MANAGE DIABETES USING MULTIPLE RISK INDICATORS

(57) **Abstract:** Described are methods and systems to annunciate to the patient of the components involved in each of the daily risk range based on the glucose measurements to assist the patient in identification of whether it is hypoglycemia or hyperglycemia are driving the daily risk range of the measured glucose values.





EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,
LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/51947

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06F 19/00; A61B 5/00; C12Q 1/54 (2013.01)

USPC - 702/19; 600/365; 435/14

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)

IPC(8): G06F 19/00, 19/26; A61B 5/00; C12Q 1/54 (2013.01)

USPC: 702/19; 600/365; 435/14

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

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

MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google; Google Patent; Google Scholar; ProQuest; KEYWORDS: diabetes, manage*, risk*, hyperglycemic, hypoglycemic, blood glucose, monitor*, measure*, alert*, communicat*, warn*, enzyme*, calculate*

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2009/0171589 A1 (KOVATCHEV, BP) 02 July 2009; figures 8, 11-12; paragraphs [0026], [0033]-[0034], [0039]-[0040], [0073], [0169], [0171],[0174], [0178]	6-8, 11 ----- 1-5, 9-10
Y	US 2012/0089893 A1 (BOUSAMRA, SA et al.) 12 April 2012; figure 1; paragraph [0068]	1-5, 10
Y	US 2012/0191361 A1 (KOVATCHEV, BP et al.) 26 July 2012; figures 4A-4B; paragraph [0046]	9
A	US 6958129 B2 (GALEN, RS et al.) 25 October 2005; entire document	1-11
A	US 7824333 B2 (OTTO, E et al.) 02 November 2010; entire document	1-11
A	US 2003/0212317 A1 (KOVATCHEV, BP et al.) 13 November 2003; entire document	1-11

☐ Further documents are listed in the continuation of Box C.

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"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 another 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

30 November 2013 (30.11.2013)

Date of mailing of the international search report

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Name and mailing address of the ISA/US

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