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(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, IR, 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, SA, 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.

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[Continued on next page]

(54) Title: ANALYSIS OF GLUCOSE MEDIAN, VARIABILITY, AND HYPOGLYCEMIA RISK FOR THERAPY GUIDANCE

(57) Abstract: A system and method to provide guidance for diabetes therapy includes determining glycemic risks based on an analysis of glucose data. The analysis includes visualization of a glucose median, the variability of glucose in a patient, and the risk of hypoglycemia. An Advanced Daily Patterns report includes a visualization of an ambulatory glucose profile and a glucose control measure. The glucose control measure provides a highly visible and understandable display of the glucose condition of a patient visually expressed in the categories of low glucose, median glucose, and glucose variability.

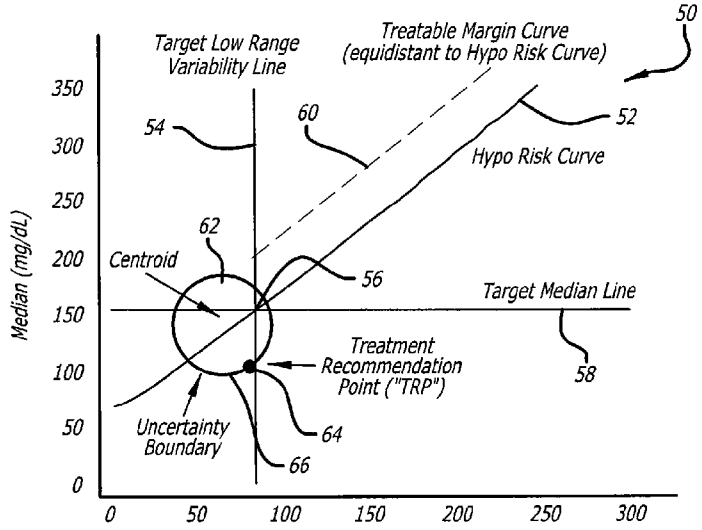

FIG. 1

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TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

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:
30 October 2014

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2013/078535

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06F19/3431
ADD.

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)
G06F

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)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2012/108938 A1 (ABBOTT DIABETES CARE INC [US]; BERNSTEIN DANIEL M [US]; BRADRICK BRITT) 16 August 2012 (2012-08-16) paragraph [0051] - paragraph [0054]; figure 4,	1-11

X	GERT FRITZSCHE ET AL: "The Use of a Computer Program to Calculate the Mean Amplitude of Glycemic Excursions", DIABETES TECHNOLOGY & THERAPEUTICS, vol. 13, no. 3, 1 March 2011 (2011-03-01), pages 319-325, XP055135793, ISSN: 1520-9156, DOI: 10.1089/dia.2010.0108 page 320 - page 323; figure 4D	1-11

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[X] Further documents are listed in the continuation of Box C.

[X] 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 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	Date of mailing of the international search report
27 August 2014	04/09/2014

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Eichenauer, Lars

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Form PCT/ISA/210 (second sheet) (April 2005)

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2011/264378 A1 (BRETON MARC D [US] ET AL) 27 October 2011 (2011-10-27) figures 1-10C	1-11
A	RODBARD DAVID: "Optimizing display, analysis, interpretation and utility of self-monitoring of blood glucose (SMBG) data for management of patients with diabetes", JOURNAL OF DIABETES SCIENCE AND TECHNOLOGY, DIABETES TECHNOLOGY SOCIETY, US, vol. 1, no. 1, 1 January 2007 (2007-01-01) , pages 62-71, XP002698093, ISSN: 1932-2968 the whole document	1-11
A	BORIS P. KOVATCHEV ET AL: "Quantifying Temporal Glucose Variability in Diabetes via Continuous Glucose Monitoring: Mathematical Methods and Clinical Application", DIABETES TECHNOLOGY & THERAPEUTICS, vol. 7, no. 6, 1 December 2005 (2005-12-01), pages 849-862, XP055135886, ISSN: 1520-9156, DOI: 10.1089/dia.2005.7.849 figure 3	1-11

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2013/078535

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2012108938 A1	16-08-2012	US 2014088393 A1	27-03-2014
		WO 2012108938 A1	16-08-2012
US 2011264378 A1	27-10-2011	CA 2753650 A1	03-06-2010
		CN 102405011 A	04-04-2012
		EP 2369980 A1	05-10-2011
		JP 2012509748 A	26-04-2012
		US 2011264378 A1	27-10-2011
		WO 2010062898 A1	03-06-2010

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/078535

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [X] Claims Nos.: 12-22
because they relate to subject matter not required to be searched by this Authority, namely:

Claims 12-22 are claims of method category and contains a step for "determining a glycemic risk" . Such a step is a diagnostic method. A search is therefore not carried out for claim 12 and all dependent claims according Rule 39.1(iv) PCT.

2. [ ] Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. [ ] Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. [ ] As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. [ ] As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. [ ] No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

[ ] The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

[ ] The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

[ ] No protest accompanied the payment of additional search fees.