



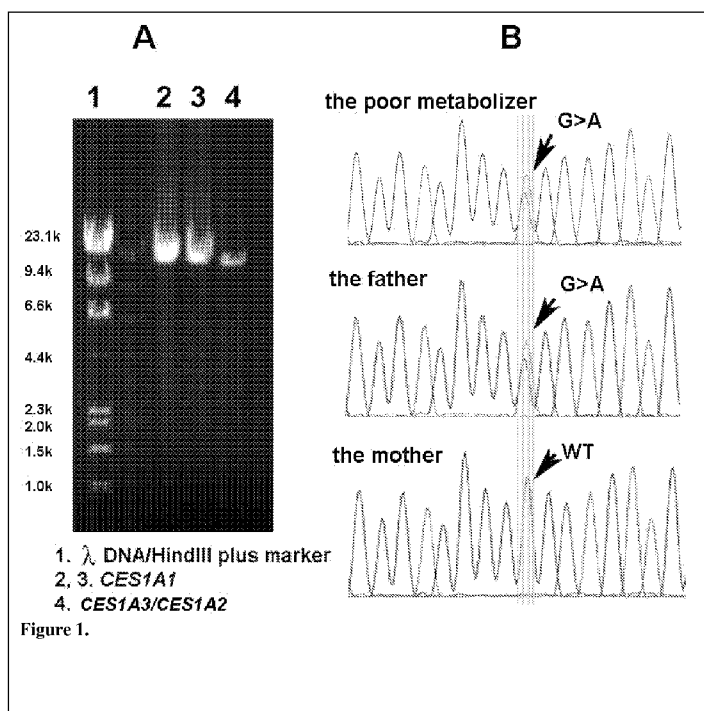
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- (71) Applicant (for all designated States except US): **UNIVERSITY OF FLORIDA RESEARCH FOUNDATION INC.** [US/US]; P.O. Box 115575, Gainesville, FL 32611-5575 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **MARKOWITZ, John, Seth** [US/US]; 1600 SW Archer Road, Room PG-23, Gainesville, FL 32610 (US). **ZHU, Haojie** [US/US];

1600 SW Archer Road, Room PG-06, Gainesville, FL 32610 (US).

- (74) Agents: **CORLESS, Peter, F.** et al.; Edwards Wildman Palmer LLP, P.O. BOX 55874, Boston, MA 02205 (US).
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[Continued on next page]

- (54) Title: COMPOSITIONS AND METHODS FOR GENOTYPING CES1 GENETIC VARIANTS AND USE THEREOF



(57) Abstract: The invention features compositions and methods that are useful for genotyping CES1 isoforms (*CES1A1*, *CES1A2*, *CES1A3*). The ability to specifically genotype one or more CES1 isoforms (e.g. *CES1A1*) is useful for assessing drug metabolism in a subject and guiding treatment selection.



SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, (88) Date of publication of the international search report:
GW, ML, MR, NE, SN, TD, TG). 28 February 2013

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/034255**A. CLASSIFICATION OF SUBJECT MATTER***C12Q 1/68(2006.01)i, C12N 15/55(2006.01)i, C12N 9/16(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)

C12Q 1/68; C12N 5/06; C12N 9/16; C12P 19/34; G01N 33/53

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2011-0020801 A1 (MARKOWITZ JOHN S. et al.) 27 January 2011	60
A	See abstract, paras. 10, 23, 68, 74, 154-157, 184, 187-188, 199, 201, claims 1, 30, 36, 51	1-3, 15, 22-24, 29-34, 55-58
A	US 2002-0076786 A1 (RORY A.J. CURTIS et al.) 20 June 2002	1-3, 15, 22-24, 29-34, 55-58, 60
	See abstract, paras. 7, 12-14, 60-61, 65, claims 4, 13, 28	
A	US 2007-0184457 A1 (GENEVIEVE PONT-KINGDON et al.) 09 August 2007	1-3, 15, 22-24, 29-34, 55-58, 60
	See abstract, paras. 13, 83-84, 88-89, claims 1, 4	



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

30 NOVEMBER 2012 (30.11.2012)

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Authorized officer

JEONG, Sei Joon

Telephone No. 82-42-481-5592



INTERNATIONAL SEARCH REPORTInternational application No.
PCT/US2012/034255**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. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 5-14, 12-13, 19, 21, 27, 40, 44-48, 50-54, 61-66
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:
Claims 5-10, 12-13, 19, 21, 27, 40, 44-48, 50-51, 54, 66 are unclear, since they eventually refer to the claims which are not drafted with the third sentence of Rule 6.4(a). Claims 10-14, 51-54, 61-66 rely on reference to the description (Table 1 or Table 3) instead of definite word expressly stated in the claims
3. ☒ Claims Nos.: 4, 11, 14, 16-18, 20, 25-26, 28, 35-39, 41-43, 49, 52-53, 59, 65 are no
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 fee, this Authority did not invite payment of any additional fee.
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.

INTERNATIONAL SEARCH REPORT

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