TITLE: GENE EXPRESSION IN PERIPHERAL BLOOD MONONUCLEAR CELLS FROM CHILDREN WITH DIABETES

ABSTRACT: The present invention includes composition, methods and systems for detecting, evaluating, diagnosis, tracking and treating Type 1 Diabetes by determining the level of expression of one or more genes listed in Table 1 (e.g., interleukin 1β (IL1B), early growth response gene 3 (EGR3), and prostaglandin endoperoxide synthase 2 (PTGS2)). The present invention also includes compositions and methods for treating a patient in need thereof with a composition having a therapeutically effective amount of one or more IL 1β antagonists sufficient to spare pancreatic beta cells, including an anti IL 1β receptor and downstream activators.
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, 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).

Published: with international search report

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INTERNATIONAL SEARCH REPORT

A  CLASSIFICATION OF SUBJECT MATTER

IPC(8) - C12Q 1/68 (2008.04)
USPC - 435/6

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) - C12Q 1/68 (2008.04)
USPC - 435/6

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

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

PubWEST, USPTO, PGPB, EPAB, JPAB, Google Patents, Google Scholar

Search terms: diabetes, type 1, gene, expression level, interleukin-1 beta or ILB, early growth response gene 3 or EGR3, prostaglandin-endoperoxide synthase 2 or PTGS2, anakinra, pharmaceutical, probe, correlation coefficient, computer, capsule

C  DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No</th>
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<tr>
<td>Y</td>
<td>BROWSER, When the immune system goes on the attack. EMBO Reports, August 2004 (08 2004), Vol 5, No 8, pp 757-760 (p 758, col 1, para 1, p 759, col 1, para 2, and p 760, col 1 para 2)</td>
<td>22-23 1-4 and 24-29</td>
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<td>Y</td>
<td>WO 2004/019903 A1 (DUGGER) 11 March 2004 (11.03.2004) p 1, para 3, p 3, para 1, and p 9 para 7</td>
<td>3-4 and 24-29</td>
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D  Further documents are listed in the continuation of Box C

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<td><strong>K</strong> document member of the same patent family</td>
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Date of the actual completion of the international search: 31 July 2008 (31 07 2008)

Date of mailing of the international search report: 8 AUG 2008

Name and mailing address of the ISA/US

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