Title: MICRONAS DIFFERENTIALLY EXPRESSED IN LEUKEMIA AND USES THEREOF

Abstract: The present invention concerns methods and compositions for identifying a miRNA profile for acute myeloid leukemia (AML), and using the profile in assessing the condition of a patient.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

INV. C12Q/1/68

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

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

Electronic database consulted during the international search (name of database and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data, Sequence Search, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
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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 document 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.
  *K* document member of the same patent family

Date of the actual completion of the international search

27 June 2008

Date of mailing of the international search report

03/09/2008

Name and mailing address of the ISA:

European Patent Office, P.B. 5618 Patentlaan 2 NL-2280 HN Rijswijk
Tel: (+31-70) 340-2040, Tx: 31 651 epo ni, Fax: (+31-70) 340-3016

Authorized officer

Reuter, Uwe
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<td>A</td>
<td>FR 2 877 350 A (CENTRE NAT RECH SCIENT [FR]) 5 May 2006 (2006-05-05) page 4, line 35 page 5, line 17</td>
<td></td>
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</table>
INTERNATIONAL SEARCH REPORT

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.: because they relate to subject matter not required to be searched by this Authority, namely:
   Rule 39.1(1) PCT - Scientific theory

2. [X] 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:
   see FURTHER INFORMATION sheet PCT/ISA/210

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:

see additional sheet

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. [X] 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.:
   see annex

Remark on Protest

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

[X] 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.

Form PCT/ISA/210 (continuation of first sheet (2)) (April 2005)
Continuation of Box II.1

Claims Nos.: -

Rule 39.1(i) PCT - Scientific theory

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Continuation of Box II.2

Claims Nos.: -

The present claims 2,7,10,11,12,16,17,18 relate to an extremely large number of possible methods i.e. that use any combination of more than one miRNA mentioned in these claims. Support and disclosure in the sense of Article 6 and 5 PCT is to be found however for only a very small proportion of the methods claimed, i.e. for the methods using one or all of the miRNAs mentioned in the claims. The non-compliance with the substantive provisions is to such an extent, that the search was performed taking into consideration the non-compliance in determining the extent of the search of claims 2,7,10,11,12,16,17,18 (PCT Guidelines 9.19 and 9.23).

The search of claims 2,7,10,11,12,16,17,18 was restricted to those claimed methods which appear to be supported i.e. the methods using one or all of the miRNAs mentioned in the claims.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.2), should the problems which led to the Article 17(2)PCT declaration be overcome.
This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

**Invention 1:** claims 1-28 (all partially), 29-32

A method for assessing a pathological condition comprising measuring an expression profile of miR-29 and a kit for assessment of an AML sample.

**Invention 2:** claims 1-28 (all partially)

A method for assessing a pathological condition comprising measuring an expression profile of miR-126.

**Inventions 3-40:** claims 1-28 (all partially)

* idem for method using any one of the further specific miRNAs mentioned in the dependent claims.
<table>
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