

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/IN2011/000684	International filing date (<i>day/month/year</i>) 30 Sep. 2011(30.09.2011)	(Earliest)Priority date (<i>day/month/year</i>) 30 Sep. 2010(30.09.2010)
Applicant DR. LAKSHMANANE BOOMINATHAN		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 6 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of:

the international application in the language in which it was filed

a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c. With regard to any **nucleotide and /or amino acid sequence** disclosed in the international application, see Box No. I.

2. **Certain claims were found unsearchable** (see Box No. II)

3. **Unity of invention is lacking** (see Box No. III)

4. With regard to the **title**,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. The figure of the **drawings** to be published with the abstract is Figure No. 6

as suggested by the applicant

as selected by this Authority, because the applicant failed to suggest a figure

as selected by this Authority, because this figure better characterizes the invention

b. none of the figures is to be published with the abstract

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Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

The invention illustrates how the TA-p73 and TA-p63 could function as negative regulators of invasion, metastasis, and cancer stem cells proliferation. In particular, p53 and TA-p73/ p63 appear to up regulate the expression of tumor suppressor miRNA, tumor suppressor genes and metastasis suppressors. Futher, suppressing of c-myc expression can increase the expression of tumor suppressor miRNAs/genes. Identifying small molecule compounds that simultaneously suppress oncogenes and activate tumor suppressor miRNAs/genes will aid cancer therapy.

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A. CLASSIFICATION OF SUBJECT MATTER

See extra sheet

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: C12N5/-;C12N15/-;A61K48/-

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)

CNPAT, WPI, EPODOC, CNKI, GOOGLE SCHOLAR:p53,p73,p63,e-myc,tumor, suppress+,RNPC1, promoter,BMI1,WWP1, miR,miR-145,PTEN,luciferase, vector, cell, line, mammalian, let-7, dicer1,INK4 α

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SACHDEVA, M. et al. p53 represses c-Myc through induction of the tumor suppressor miR-145.PNAS. 3 March 2009 (03.03.2009), vol. 106, No. 9, pages 3207–3212. see page 3209 right column paragraph 4, page 3208 right column paragraph 1, Figures 3A,3B,4E and 4F.	1-4,9
X	SHU, Limin et al. RNPC1, an RNA-binding protein and a target of the p53 family, is required for maintaining the stability of the basal and stress-induced p21 transcript. Genes Dev. 18 October 2006 (18.10.2006), vol.20, pages 2961-2972. see page 2970 left column paragraph 2.	5,6
X	LEE, Y.S. et al. The tumor suppressor microRNA let-7 represses the HMGA2 oncogene, Genes Dev. 16 April 2007 (16.04.2007), vol. 21, pages 1025-1030. see page 1027 left column paragraph 3, Figures 2A and 2B.	7,8

Further documents are listed in the continuation of Box C.

See patent family annex.

<p>* Special categories of cited documents:</p> <p>“A” document defining the general state of the art which is not considered to be of particular relevance</p> <p>“E” earlier application or patent but published on or after the international filing date</p> <p>“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)</p> <p>“O” document referring to an oral disclosure, use, exhibition or other means</p> <p>“P” document published prior to the international filing date but later than the priority date claimed</p>	<p>“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</p> <p>“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</p> <p>“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</p> <p>“&” document member of the same patent family</p>
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Date of the actual completion of the international search 07 February 2012 (07.02.2012)	Date of mailing of the international search report 15 Mar. 2012 (15.03.2012)
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FAN,C. et al. PTEN inhibits BMI1 function independently of its phosphatase activity.Molecular Cancer.10 November 2009 (10.11.2009), vol. 8, pages 98-111. see page 9 of 14, left column paragraph 3, Fig 6, page 2 of 14, right column paragraph 2.	10
A	WO 2008/088858 A2 (THE JOHNS HOPKINS UNIVERSITY) 24 July 2008 (24.07.2008). see the whole document.	1-10
A	EP 2202309 A1 (KYOTO UNIVERSITY) 30 June 2010 (30.06.2010).see the whole document.	1-10

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
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Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
WO 2008/088858 A2	24.07.2008	EP2111408 A2	28.10.2009
		JP2010516249A	20.05.2010
		US2010298407A1	25.11.2010
		WO2008088858A3	18.12.2008
EP 2202309 A1	30.06.2010	US2009246875A1	01.10.2009
		JP2010158171A	22.07.2010

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Continuation of: A. CLASSIFICATION OF SUBJECT MATTER OF SECOND SHEET

C12N5/00 (2006.01)i

C12N5/09 (2010.01)i

C12N15/79 (2006.01)i

A61K48/00 (2006.01)i